



INTERNATIONAL ATOMIC ENERGY AGENCY

INDC(CCP)-439

Distr.: SD/EL

I N D C INTERNATIONAL NUCLEAR DATA COMMITTEE

ATLAS OF ROTATIONAL BANDS IN ODD-MASS NUCLEI

T.V.Alenicheva, L.P.Kabina, I.A.Mitropolsky, T.M.Tyukavina

Data Center of the Petersburg Nuclear Physics Institute
of the Russian Academy of Sciences

Orlova Roscha, Gatchina, Leningrad district, 188300 Russia

July 2004

IAEA NUCLEAR DATA SECTION, WAGRAMER STRASSE 5, A-1400 VIENNA

Documents in the EL series are available in only limited quantities in hardcopy form. They may be downloaded in electronic form from http://www-nds.iaea.org/indc_sel.html or sent as an e-mail attachment. Requests for hardcopy or e-mail transmittal should be directed to services@iaea.org or to:

Nuclear Data Section
International Atomic Energy Agency
P.O. Box 100
Wagramer Strasse 5
A-1400 Vienna
Austria

Produced by the IAEA in Austria
July 2004

ATLAS OF ROTATIONAL BANDS IN ODD-MASS NUCLEI

T.V.Alenicheva, L.P.Kabina, I.A.Mitropolsky, T.M.Tyukavina

Data Center of the Petersburg Nuclear Physics Institute
of the Russian Academy of Sciences
Orlova Roscha, Gatchina, Leningrad district, 188300 Russia

Abstract

On the ground of a file of the evaluated nuclear data *ENSDF* the most complete compilation of rotational bands in odd-mass nuclei with mass numbers $43 \leq A \leq 253$ is presented. The processing of experimental data is carried out on the basis of generalization of the variable moment of inertia model for axial strong deformed nuclei which is taking into account the decoupling effect for bands with $K = 1/2$. The good description of rotational energies for the majority of rotational bands is obtained and the systematic behavior of the model parameters in all areas of the deformed nuclei is shown. The theoretical description is used for association of fragments of rotational bands, exclusion of «superfluous» levels and prediction of a placement of «missed» levels.

July 2004

Contents and list of the basic figures

INTRODUCTION	4
SPECIFIC FEATURES OF ROTATION OF ODD-MASS NUCLEI	5
Regular rotational bands in the nucleus ^{171}Er	5
Rotational bands with the signature splitting in the nucleus ^{115}Sn	6
DATABASE FOR THE ROTATIONAL STATES OF ODD-MASS NUCLEI	7
Structure of the database <i>ROTON</i>	7
Distribution of the rotational bands over the mass number	8
Distribution of the rotational bands over the band head spins	9
Distribution of the rotational bands over the number of levels	10
VARIABLE MOMENT OF INERTIA MODEL FOR ODD-MASS NUCLEI	10
Description of the rotational bands in the variable moment of inertia model and conventional parameterization	12
Distribution of the rotational bands over the accuracy of the model description	13
SYSTEMATICS OF THE VARIABLE MOMENT OF INERTIA MODEL PARAMETERS	14
Decoupling parameters as functions of mass number	14
Distributions of the moments of inertia in band groups described by the variable moment of inertia model and its adiabatic limit	15
Mass dependence of the moments of inertia in the band group having the non-adiabatic model description	16
Systematics of the nuclear hardness parameters	16
Mass distributions of the rotational bands having the non-adiabatic model description with a given accuracy	17
Distributions of the moments of inertia for the bands described with given accuracy	18
Mass dependence of the moments of inertia for the bands described with given accuracy	18
RECONSTRUCTION OF ROTATIONAL BANDS ON THE BASIS OF THE SYSTEMATICS	19
Energy diagrams of the rotational bands with superfluous levels	19
Example of signature unification of the bands in ^{171}Yb	20
Systematics of the moments of inertia for the unified bands	20
APPENDIX	22
Distribution of the rotational bands in odd-mass nuclei over the proton number	22
Distribution of the rotational bands in odd-mass nuclei over the neutron number	22
The initial part of the distribution of the rotational bands over the accuracy of the model description	23
Distribution of the decoupling parameters for all bands with $K=1/2$	23
Dependence of the accuracy of the model description of bands with $K=1/2$ on the absolute values of the decoupling parameter	24
Systematics of the neutron decoupling parameters for the bands $1/2[521]$ over the neutron number	24
Distribution of the rotational bands having adiabatic description over the mass number	25
Systematics of the “adiabatic” moments of inertia over the mass number	25
Systematics of the non-adiabaticity parameters over the mass number	26
Distribution of the unified bands over the mass number	26
CONCLUSION	27
ACKNOWLEDGEMENTS	28
REFERENCES	28
EXPLANATIONS TO DIAGRAMS AND TABLES OF THE ATLAS	29
ROTATIONAL BANDS IN ODD-MASS NUCLEI WITH $43 \leq A \leq 253$	30

Introduction

One of the basic properties of the deformed nuclei is the presence of specific rotational bands in their excitation spectra. The rotation arises naturally with the appearance of deformation that enables one to speak about the space orientation of the system as a whole. The rotational spectrum restores the rotational invariance of the system spontaneously broken in the ground state. The detailed examination of the nuclear rotational spectra enables to judge about the appearance and the development of deformation, to clarify the basic features of the collective nuclear dynamics and to study the coupling of the single-particle and collective motion in nuclei.

There exist a lot of references on theoretical description of the nucleus rotation. At present one can say that the nuclear rotation is studied enough, i.e. the necessary set of nuclear models describing all the aspects of the rotation is created. For this reason the accent in the theoretical description is now shifted either to the microscopic justification of phenomenological models and calculation of their parameters or to the systematic studies of large collections of the experimental data on the basis of the models known.

The given work just presents the second direction of the investigations. The aim of it was a production of the database including the most complete compilation of the energies of the rotational states of odd-mass nuclei, their phenomenological description and systematization of the data on the basis of this description. At the present stage the decay properties of rotational states were not considered at all.

In a broad sense the systematization is a conversion of a variety of the observed properties of rotational bands to a number of parameter values of the corresponding nuclear model with their further statistical treatment. Such an approach enables us, on the one hand, to carry out the specific evaluation of experimental data and, on the other hand, to clarify the nature of nuclear rotation, the influence on it of the structure peculiarities specific of nuclei of different groups. In the present study the accent is made on the first part of this program. The second part is given schematically and its results are worthy of a separate publication.

In accordance with the above the present work consists of two parts. Given in the first one is a basic information about the properties of rotational bands in odd-mass nuclei, about the database structure, about the model of nuclear rotation and about the method of determination and the systematics of its parameters. Described here are also cases of a reconstruction of rotational bands: unification of their fragments, exclusion of the “superfluous” levels and prediction of the position of “missing” ones. This part has an applied character and is directly related to evaluation of the data concerning properties of rotational states of odd-mass nuclei.

The additional figures and brief commentaries to them are placed in the Appendix. The first part of the Atlas is finished by the list of references which is not complete but refers the reader to the main sources or to the detailed reviews.

The second part of the work that forms its main volume and gave name to it includes diagrams and tables containing experimental and calculated energies of the rotational levels of odd-mass nuclei. For convenience references to the sources of the experimental information are given directly for each isobaric chain.

At last the text of the Atlas is placed also on the Web-site of the Data Center of PNPI:

<http://nrd.pnpi.spb.ru/RNDS/>.

It is supposed that the database on the rotation of the odd-mass nuclei and, respectively, the electronic version of the Atlas will be updated with appearance of new experimental data. For example, in the English edition of the Atlas a new rotational band in ^{43}Ca is added.

Specific features of rotation of odd-mass nuclei

The rotational states of nuclei are excited practically in all the nuclear reactions and decays accompanied by the angular momentum transfer [1].

The rotational band in the nucleus is a succession of states of the one and same parity, connected by intense electromagnetic transitions, and with spins I varying monotonously along the band. The energies of the rotational levels in the band follow approximately the law $E_I \approx A \cdot I(I+1)$ (here and after we use the conventional system of units with $\hbar = 1$) corresponding to the rotation of the quantum top. A part of the rotational spectrum of an odd-mass nucleus with the standard notations of the bands is presented in Fig.1.

Note that later we consider only the energies of the rotational states omitting their decay properties (transition intensities and multipolarities).

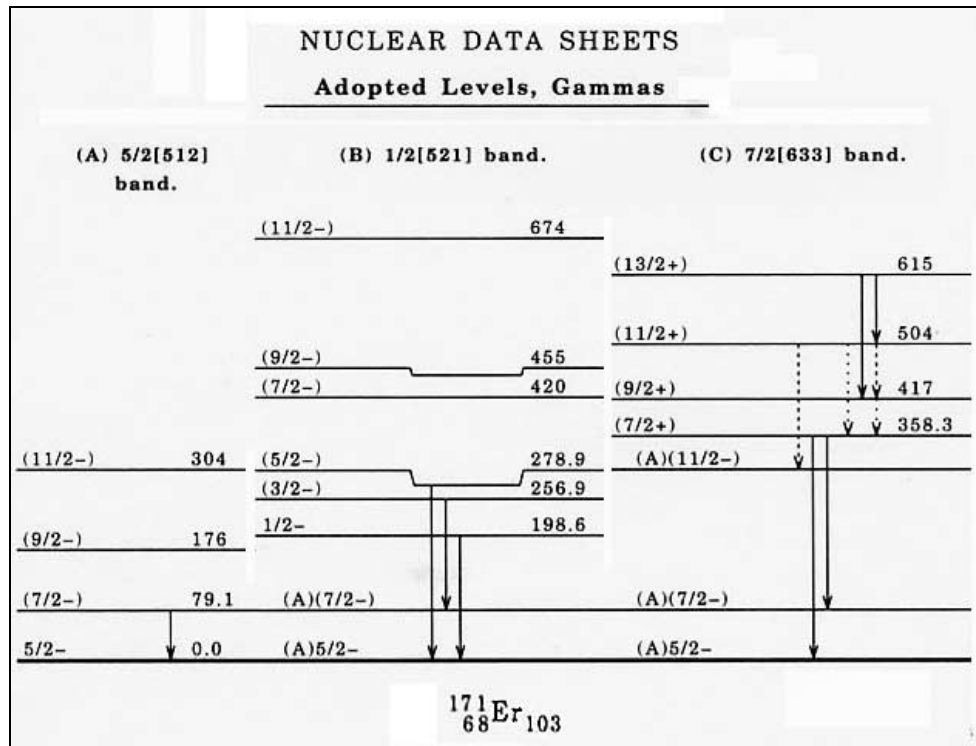


Fig. 1. Regular rotational bands in the nucleus ^{171}Er [2].

In phenomenological analysis of the rotational spectra a “polynomial” formula is widely used for the energy E_I of the level with the spin I and its projection K [3]:

$$E_I = E_0 + A\hat{I}_K^2 + B\hat{I}_K^4 + \dots, \quad (1)$$

where

$$\hat{I}_K^2 = I(I+1) - K^2 + (-1)^{I+1/2} (I+1/2) a \delta_{K,1/2},$$

with fitting parameters E_0 , A , B , and a (the latter only for bands with $K = 1/2$). The parameter a takes into account a specific for the rotation of the odd-mass nuclei effect of decoupling [4]. This effect displays itself in the inhomogeneous dependence of the level energies on the spin in the bands with $K = 1/2$ as is the case for band B: 1/2[521] shown in Fig.1.

The properties of odd-mass nuclei are determined mostly by the state of an odd particle and by the character of its interaction with the nuclear core. On the one hand, an odd particle blocks the single-particle states near the Fermi surface and prevents the formation of the two-quasiparticle excitations of the core, increasing effectively the moment of inertia and the “hardness” of the odd-mass nucleus. In such cases the rotational bands in the odd-mass nuclei are presented by regular sequences of levels. For them the parameter A in Eq.(1), as a rule, has smaller values than for the ground state rotational bands in neighboring even-even nuclei, while the parameter B is very small.

On the other hand, the observed rotational spectra of many odd-mass nuclei have noticeable irregularity in the dependence of energy on the spin. It is connected with larger, than in neighboring even-even nuclei, level density and with possibility of quasi-crossing of bands with the “repulsion” of the levels in the region of their interaction. The irregularity can also be connected with the non-adiabatic character of the single-particle motion even at not large spins, especially in the transitional and weakly deformed nuclei, or with the arrangement of the odd particle spin along rotational momentum.

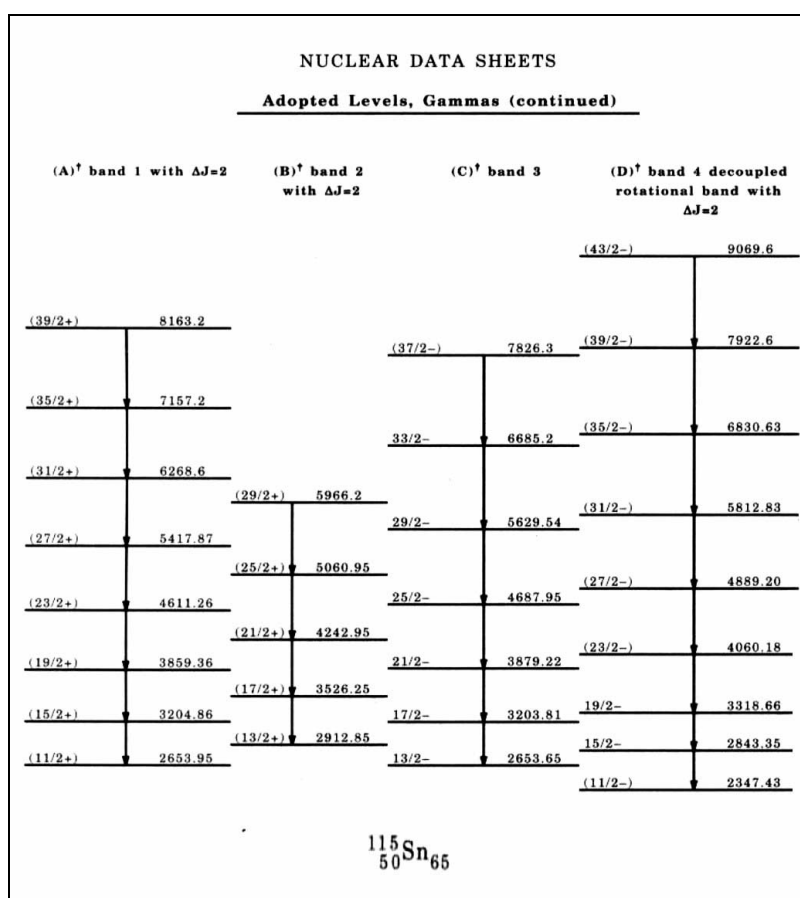


Fig. 2. Rotational bands with the signature splitting in the nucleus ^{115}Sn [5].

The signature splitting of the levels in the rotational bands is also a specific feature of the odd-mass nuclei. A fragment of the rotational spectrum with a strong signature splitting is presented in Fig.2. In some cases the signature partners appear in the experiment and are considered by evaluators as the independent rotational bands. Sometimes in the odd-mass nuclei one observes only “halves” of the bands with the spins different by two units for the neighboring states. The absence of the second “half” of the band in the spectrum or its shifting in energy manifest the physical differences of the states with different signature. Let us notice that the signature splitting in the bands with $K = 1/2$ cannot be necessarily comprehended with only the effect of decoupling.

These features of the rotation of odd-mass nuclei, on the one hand, make the complete analysis and interpretation of the experimental data more difficult but, on the other hand, enable us to study the complicated dynamics of the coupling of the collective and single-particle degrees of freedom in atomic nuclei. The universal systematics of the properties of the rotational band in odd-mass nuclei in combination with the quantitative model description can help us to obtain the complete understanding of the nature of these features and of the rotation dynamics as a whole.

Database for the rotational states of odd-mass nuclei

The most comprehensive information on the properties of the nuclear states excited in nuclear reactions or populated in decays exists in the file of evaluated nuclear data *ENSDF* (Evaluated Nuclear Structure Data File) [6]. We have developed a system of codes for automatic selection of the data on the rotation of odd-mass nuclei from the *ENSDF* and of the codes for their processing. On the basis of the code system the database *ROTON* (ROTation of Odd-mass Nuclei) was built. It includes both the evaluated experimental data and the calculated ones.

The rotational nuclear levels in the *ENSDF* format have special marks that note that they belong to a given band. As usual Latin letters (more often the capital ones, see Figs.1, 2) are used, however e.g. in ^{235}U numbers are taken. The marks are accompanied by the quantum numbers of the head level of the band, for deformed nuclei these are usually the Nilsson quantum numbers for a single-particle state $\Omega[Nn_z\Lambda]$. When the structure of the head level is unknown or it is not appropriate to speak about its single-particle nature, the band is marked by the value of the spin and parity of the head level: I_{\min}^{π} . For example, for the bands given in Fig.1 we use the following headlines: A: 5/2[512], B: 1/2[521] and C: 7/2[633], and for the bands given in Fig.2 – A: 11/2⁺, B: 13/2⁺, C: 13/2⁻ and D: 11/2⁻. In the same way the headlines are attributed to all the rotational bands in the database *ROTON*.

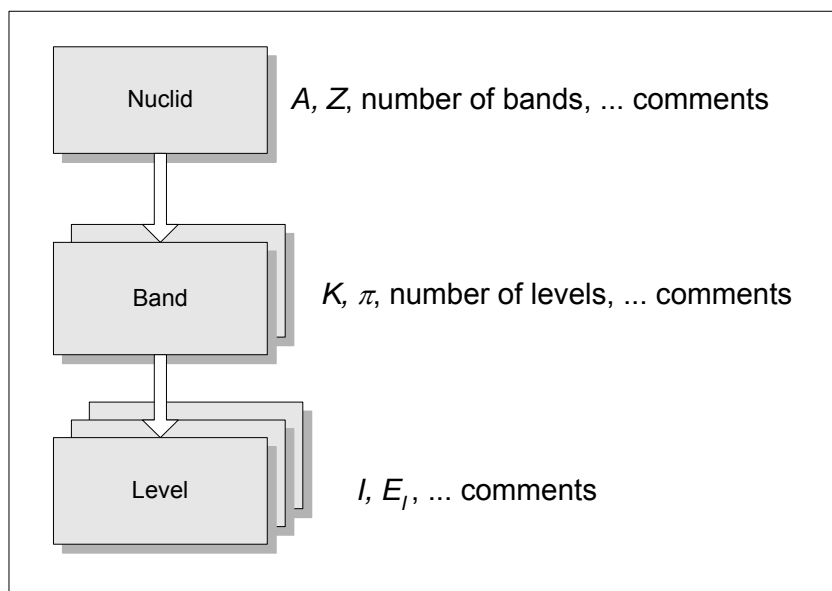


Fig. 3. Structure of the database *ROTON*.

The database *ROTON* has three levels of hierarchy, see Fig.3. The information concerning the nuclide, the number of rotational bands and the source of the experimental data corresponds to the first level. The second level includes data on the given rotational band as a whole: headline for the band,

parity, minimal spin I_{\min} , the number of levels forming the band, parameters of the model description. Finally, the third level contains both the experimental and obtained by the calculations information about the selected rotational state, its energy with the error, spin and parity.

Large significance in the database is placed on the comments that can be related to the data of all three stages. In particular, as a comment given is information concerning the structure of the band head state or the properties of the band as a whole. Comments enable us also to present the specific features of the model calculations and the recommendations for the band reconstruction worked out on the basis of the calculations. Typical comments in the database *ROTON* are coded that enable one to treat them quickly.

The programs of input realize a search in the *ENSDF* for the data about the rotational state and fix them in the database *ROTON* with the comments. On the basis of the selected experimental data the programs of their processing calculate the model parameters and the spectra that are also placed into the base with their comments. At last the programs of output or “visualization” of the information generate tables and diagrams in a given format. Let us emphasize that all the process of treating information is automatic that, to a great degree, excludes mistakes resulting from the interference with “operator”.

To the end of 2002 the database *ROTON* contains information about 2540 rotational bands in 451 odd-mass nuclides with the mass numbers $43 \leq A \leq 253$. We had chosen all sequences of levels denoted in the *ENSDF* as independent rotational bands and containing not less than 3 levels.

From this manifold for the further treatment we have selected bands with certain values of spins. The majority of “superdeformed” bands [7], spins of which are determined as a rule with accuracy to the additive constant, remained beyond our consideration. The successions of levels occurring in the near magic nuclei, that apparently are not the rotational bands, were also rejected. The information from the database naturally is not removed; it is simply accompanied with the corresponding sign-commentaries, permitting in each case to change the solution. As a result, for the following analysis we have selected 2218 bands with more than 17 thousands levels.

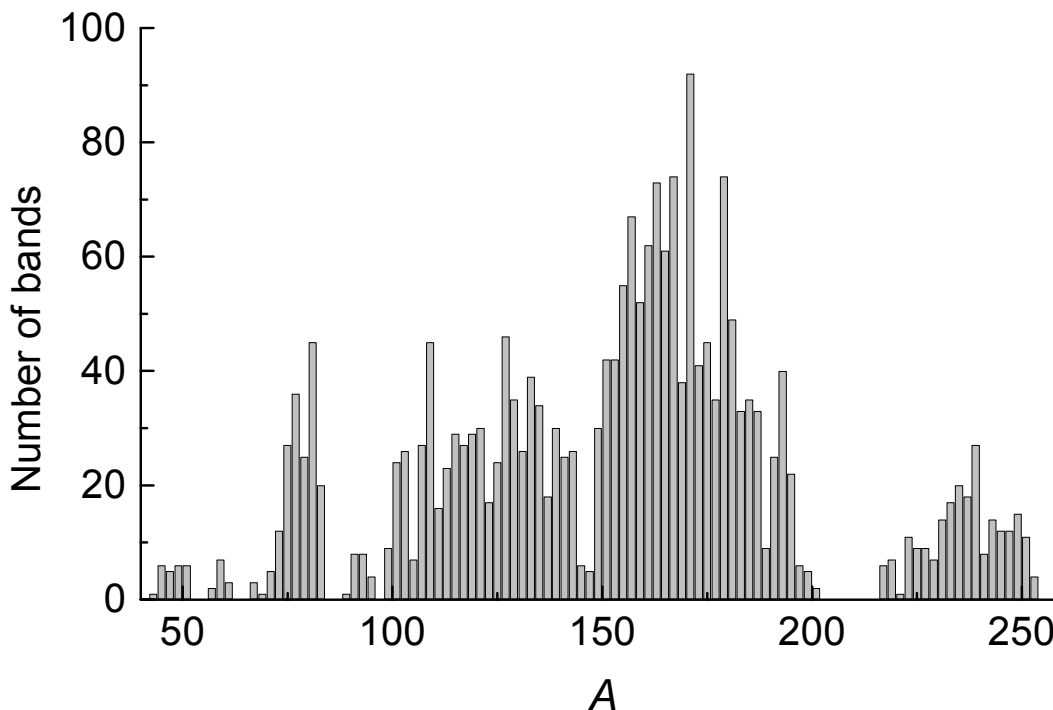


Fig. 4. Distribution of the rotational bands over the mass number.

The total distribution of the number of rotational bands in odd-mass nuclei over the mass number A is given in Fig.4. The maximums of this distribution point out to the regions of the deformed nuclei, in which rotation is developed on each internal state. In the region of the transitional nuclei the rotational bands can arise only on the states with the dynamical deformation or on the “intruder” states. The spherical nuclei do not rotate at all. This picture is added with distributions over the number of protons Z and over the number of neutrons N , see Appendix, Figs.19, 20. Let us note that the local depression in the mass distribution of the rotational bands can be connected with the length of the isobaric chain as well as with the non-uniform degree of the exploration of separate nuclei or with age of the last renewal of the *ENSDF* for a given A . For example, our first selection of the data from the *ENSDF* of 1999 involved 2022 bands [8]. The number of rotational bands in nuclei with $A=171$ increased almost twice for the last ten years.

The analysis of the distribution of the number of rotational bands over the quantum numbers of the band heads does not reveal any peculiarities. Fig.5 shows the distribution of the number of rotational bands depending on the spin values of the band head I_{\min} . Some excess of the number of the observed bands with $I_{\min} = 5/2$ compared to the average is apparently due to the signature splitting, when the bands, the signature partners with $I_{\min} = 3/2$ and $I_{\min} = 5/2$, are considered as independent.

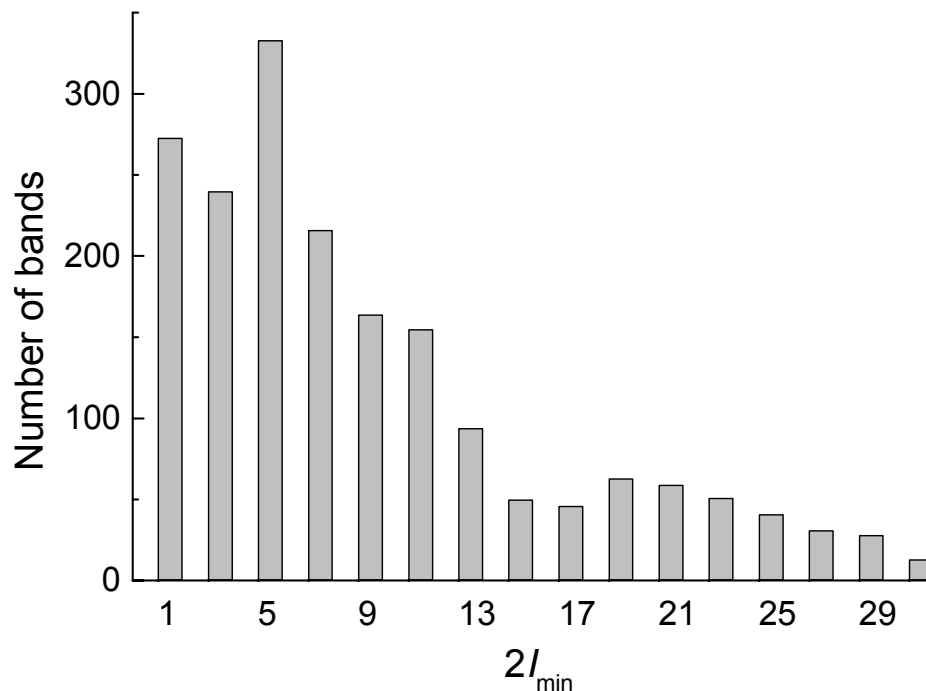


Fig. 5. Distribution of the rotational bands over the band head spins.

In Fig.5 a considerable number of the rotational bands beginning from large spins attracts particular attention. The largest value $I_{\min} = 45/2$ occurs for the bands C: $45/2^-$ and D+E: $45/2$ in ^{113}I . On the one hand, this excludes simple single-particle treatment of the structure of the band head states of such bands; on the other hand, this enables us in some cases to consider them as high-spin fragments of the bands which start at small spins but loose coupling with them due to the branching of the electromagnetic transitions.

The distribution over spins of the initial states can be completed by the diagram describing the distribution of the rotational bands over their lengths, i.e., over the number L of the levels forming the corresponding band, Fig.6. Note that $L \geq 3$ in accordance with our rule of the band selection from the *ENSDF*.

Though the most of superdeformed bands were not considered, the database **ROTON** contains many high-spin states. For example, the maximum spin of the rotational state $I_{\max} = 135/2$ is observed in the band A: $47/2$ in ^{149}Gd , and the ground state rotational band A: $5/2[523]$ in ^{167}Yb is identified up to spin $I_{\max} = 93/2$. Altogether the database involves more than 100 long bands, each including more than 20 levels.

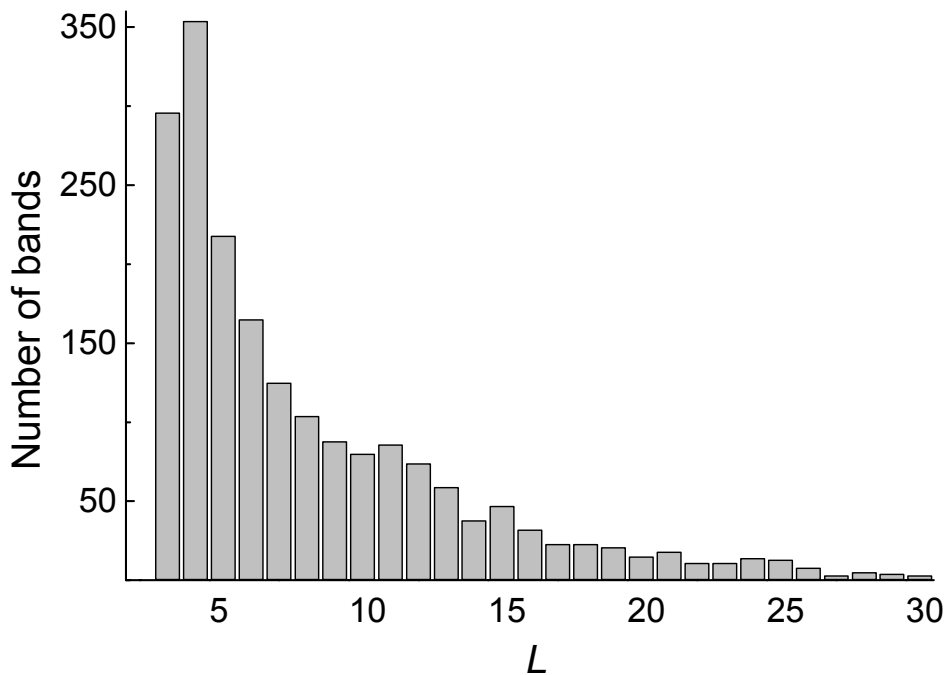


Fig. 6. Distribution of the rotational bands over the number of levels.

Variable moment of inertia model for rotational bands in odd-mass nuclei

The development of the technique of the nuclear spectroscopy in combination with the use of the heavy ion reactions (HI, $xn\gamma$) has given an opportunity to experimentally investigate the region of high spins (see, for example, the review paper [1]). The description of the rotational bands with the spins $I > 10$ on the basis of expansion (1) would demand the introduction of the large number of free parameters. Lack of prospects on this way dictated searches for other representations. In this respect the model of variable moment of inertia [9] proved to be the most successful.

The remarkable peculiarity of this model is its clearness and the possibility of generalizations taking into account different specifications of the experimental data [10]. The generalizations of the variable moment of inertia model for describing the rotation of the odd-mass nuclei were suggested by different authors [11] but, regrettably, the systematic calculations along these lines were not carried out.

In the Atlas the generalization of the variable moment of inertia model based on the representation about rotation of the strongly deformed nucleus with the axial symmetry [12], taking into account the effective decoupling for the bands with $K = 1/2$, was used for describing properties of the rotational bands in odd-mass nuclei.

The energy of a rotational state with the spin I and its projection K to the symmetry axis of a nucleus is

$$E_I = E_0 + \frac{\hat{I}_K^2(a)}{2J_I} + \frac{C}{2}(J_I - J_0)^2, \quad (2)$$

where, as in equation (1),

$$\hat{I}_K^2(a) = I(I+1) - K^2 + (-1)^{I+1/2}(I+1/2)a\delta_{K,1/2}.$$

The only dynamic parameter of the model, the effective moment of inertia J_I , is determined for each level from the equilibrium condition:

$$\frac{\partial E_I}{\partial J_I} = 0. \quad (3)$$

The cubic equation (3) has the only real root

$$J_I = J_0 f_I(G, a), \quad (4)$$

where

$$f_I(G, a) = \frac{1}{3} \{ 1 + \sqrt[3]{1 + g_I + \sqrt{g_I(g_I + 2)}} + \sqrt[3]{1 + g_I - \sqrt{g_I(g_I + 2)}} \},$$

$$g_I(G, a) = 27\hat{I}_K^2(a)/4G,$$

provided that at $I \geq K$ the relationship

$$G = CJ_0^3 \geq -27\hat{I}_K^2(a)/8 \quad (5)$$

is fulfilled. The last condition determined the region of the admissible values of the model parameters.

According to physical meaning, the parameter J_0 is a moment of inertia of the “stopped”, non-rotated nucleus, E_0 is its energy. Contrary to even-even nuclei the moment of inertia $J_{I=K}$ and the energy $E_{I=K}$ of the band head state do not coincide with the values of the parameters J_0 and E_0 , respectively. Positive by definition the parameter C has a meaning of “elasticity” or “hardness” and determines the relative increase of the moment of inertia in the nucleus with the increase of the spin in the band. The dimensionless parameter of non-adiabaticity G is not independent, but it is useful in a numeric solution of the model equations [12].

Formally, the parameterization of the variable moment of inertia model (2) corresponds to the infinite series (1) with $B < 0$ [13]. In the most cases it gives better agreement with experimental data compared to its “quadratic” approximation. The results of the model description of some long bands are compared in Fig.7 with the traditional representation (1), which are equivalent over the number of parameters. Here in both calculations the parameters were determined using the first levels of rotational bands (such a method is encountered in the *ENSDF* most often).

Examples given in Fig.7 clearly show that the power expansion (1) do not correspond to the experimental data. Naturally the results of the traditional calculation can be improved using other way of determining the parameters but divergence still remains. Note also that the numeric values of the parameters in the expansion (1) for signature partners differ significantly.

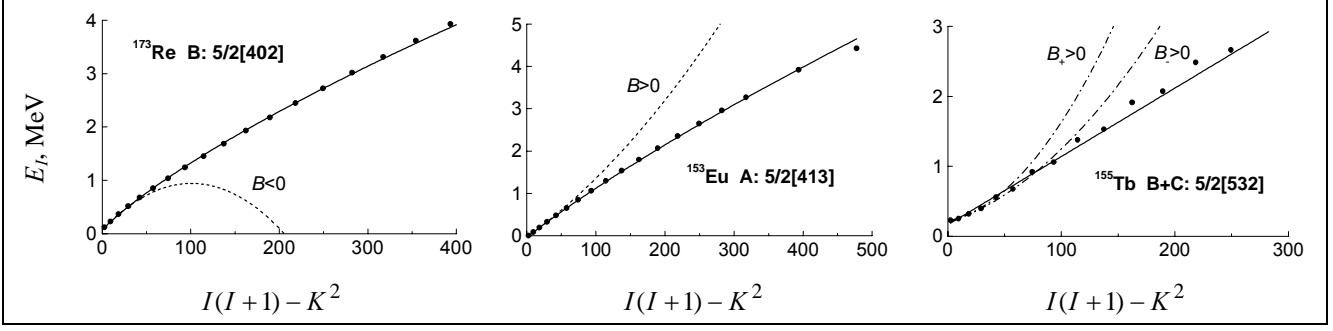


Fig. 7. Description of the rotational bands (dots are the experimental energy values) in the variable moment of inertia model (full line) and in the traditional parameterization (dashes). The signature partners in ^{155}Tb (to the right) are parameterized as independent bands.

In the Atlas the model parameters J_0 , C , E_0 and a (the last one only for $K = 1/2$ bands) for each rotational band were determined by the least squares fit using the experimental energy values of all the levels. When fitting, the statistical weights of levels, inversely proportional to their energies, are used. To our mind such a procedure reflects better the physical meaning of the model approximations by placing more weight on the beginning of the band. At the same time contrary to the determination of the parameters, using only the first levels of a band, this method enables one to take effectively into account the dynamics observed for all the band. The results of the model description of level energies in all the observed rotational bands in odd-mass nuclei are presented in detail in the second part of the Atlas as diagrams and tables.

If the level energies in the band are determined experimentally with an accuracy to an additive constant E_x (there are 146 such bands in the database), in the calculation this constant was assumed to be zero, i.e. it was effectively included in the value of the parameter E_0 .

For axially symmetric nuclei the spin projection K to the symmetry axis is a good quantum number. If Nilsson quantum numbers $\Omega[Nn_z\Lambda]$ are determined for the band head level in the *ENSDF*, then $K = \Omega$. In all the other cases we consider $K = I_{\min}$. A special investigation shows that the energy description of the band poorly depends on a choice of the value of K and in practice is totally compensated by renormalizing the model parameters, mainly E_0 .

Note that the model of variable moment of inertia describes rotational bands with the negative curvature of a plot of energy E_I as a function of “quadrate of spin” $I(I+1) - K^2$, that corresponds to the negative values of a coefficient B in Eq.(1). This is a “general case” for the ground state rotational bands of even-even nuclei. The peculiarity of odd-mass nuclei is the presence of rotation bands with the positive or even with the variable curvature. The bands E: $23/2^-$ in ^{171}Ir and D: $15/2^-$ in ^{113}In , respectively, are the examples. For such bands better agreement is achieved in the adiabatic approximation of the model $C, G \rightarrow \infty$, when the moment of inertia of the nucleus does not vary with the spin:

$$J_I \equiv J_0 \text{ and}$$

$$E_I = E_0 + \hat{I}_K^2(a)/2J_0 . \quad (6)$$

The last formula is equivalent to the linear ($B = 0$) approximation in Eq.(1) with the coefficient $A = 1/2J_0$. In this case on the energy diagram the rotation bands look like straight lines similarly to band B+C: $5/2[532]$ in ^{155}Tb (see Fig.7). Naturally the adiabatic approximation (6) does not describe the coupling of rotation with the internal nuclear motion and thus more poor in the physical sense.

For the quantitative estimation of the results of the model description of energies of rotational bands one can determine the mean-squared deviation of the calculated energy values from the experimental ones:

$$\Delta = \sqrt{\sum_{i=1}^N (E_i^{(\text{cal})} - E_i^{(\text{exp})})^2 / (N - N_0)}, \quad (7)$$

where N is the number of the observed levels in the band,

$$N_0 = \begin{cases} 4, & K = 1/2 \\ 3, & K > 1/2 \\ 3, & K = 1/2, C \rightarrow \infty \\ 2, & K > 1/2, C \rightarrow \infty \end{cases} \quad (8)$$

is the number of parameters in the model. The value of Δ can be called an uncertainty or an accuracy of the model description of the experimental data.

The distribution over values of the mean-squared deviations Δ for all the bands with $N > N_0$ is presented in Fig.8. The condition $N > N_0$ does not influence on the character of the result, as short bands with $N = N_0$ (182 bands) formally get the identical description, $\Delta = 0$, and their inclusion simply increases the number of events in the first channel of the histogram.

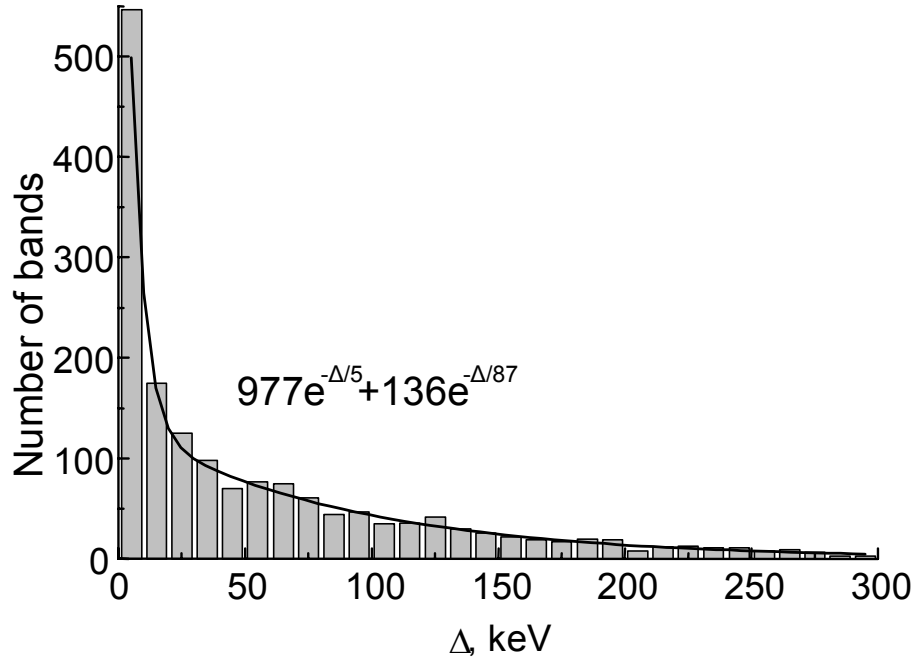


Fig. 8. Distribution of rotational bands over the accuracy of the model description.

The distribution of errors listed in Fig.8 is well parameterized with a sum of exponential functions with decrements differing by more than an order. The initial part of the distribution Δ with the corresponding parameterization is shown in Fig.21 in Appendix. For small Δ the distribution is already in practice exponential. This peculiarity enables us to introduce hierarchy of the rotational bands according to the quality of their model description and to select in the further analysis three groups, namely, all the bands, the bands with $\Delta \leq 50$ keV and bands with $\Delta \leq 5$ keV.

The most important result of our systematics is that the distribution of rotational bands over the errors Δ has Poisson character. This fact lies in the ground of the further statistical analysis of the results of the model description and the systematics of the rotational bands. Such a character of the error distribution justifies adequacy of the variable moment of inertia model for the description of rotation of the odd-mass nuclei, with the details not accounted for by it having “chance” character, thus permitting the statistical treatment. At last this result enables us to formulate a task about the theoretical calculation using a microscopic approach of the mean values of the parameters of the variable moment of inertia model, which is phenomenological in essence.

Systematics of the variable moment of inertia model parameters

The results of the description of rotational bands in odd-mass nuclei in the model of variable moment of inertia result in the necessity of dividing them into two groups. The first group irrespective of an accuracy of the description consists of the bands for which fitting of the rotational bands by a least-squares method leads to finite values of the parameters E_0 , J_0 , C and a (the last is only for bands with $K = 1/2$). This group is a basis for the further analysis and includes 1366 bands. The remaining 852 bands can be described only in the adiabatic approximation of the model, $C, G \rightarrow \infty$. Strictly speaking the model proved to be inadequate for the bands of the second group, though in separate cases the accuracy of the adiabatic description can be very high.

The values of the parameters E_0 and a for these groups have no essential differences, while the parameters J_0 and C differs drastically. The dimensionless (in the system of units, where $\hbar = 1$) parameters of decoupling a with the corresponding errors for all the bands with $K = 1/2$ (273 bands) are presented in Fig.9 as a function of the mass number A . The distribution of the decoupling parameters over their values is given in Fig.22 of Appendix.

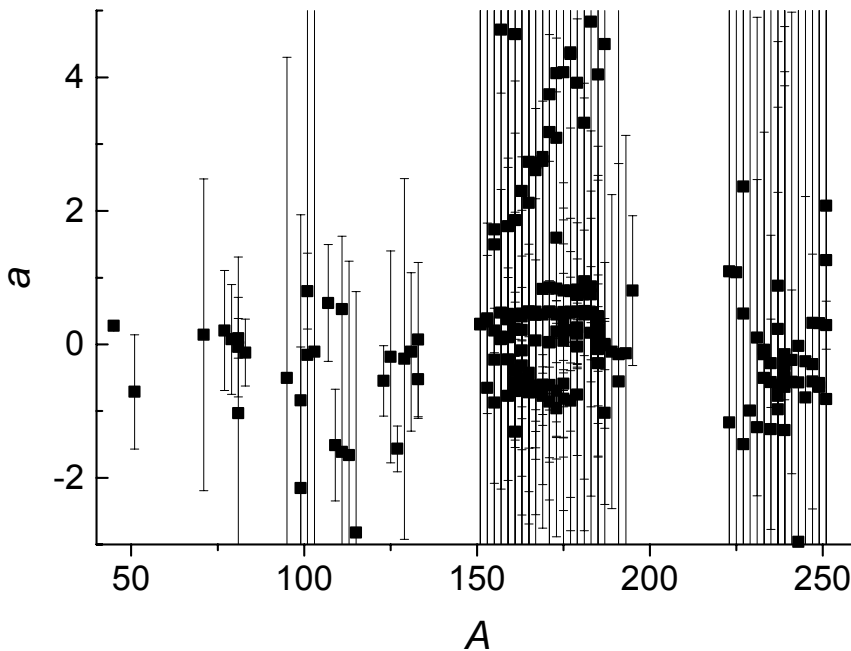


Fig. 9. Decoupling parameters as a function of the mass number.

Small difference of the decoupling parameter values for both types of the calculations speaks about its kinematical nature. This parameter in the essence is a matrix element of Coriolis interaction taken into account in the expression for the rotation energy (2) in the first order of perturbation theory. So it should be naturally to assume that good energy description of the rotation band is achieved for not too large values $|a|$. Nevertheless, the correlation analysis does not confirm such an assumption (see Fig.23 in Appendix). Thus no restrictions to a value of a arise from the systematics.

The physical meaning of the decoupling parameter enables us to systematize it over the rotational bands, based on the fixed single-particle states in various nuclei. The values of the parameter a for the bands with the quantum numbers $1/2[521]$ in odd- N nuclei are presented in Fig.24 of Appendix for the most long sequence (48 bands in nuclei from Sm to Hg). Such systematics being combined with the microscopic calculation enable us to estimate to what degree band head state is single-particle in nature; this degree of course decreases as the state moves from the Fermi surface [14].

The moments of inertia $J_0^{(0)}$, obtained in the adiabatic approximation of the model are on the average significantly greater than the moments of inertia J_0 . This difference is due to the negative curvature of the energy diagram and has a simple geometric meaning. Fig.10 shows the distributions of the moments of inertia for these two band groups. They are characterized with the average values $\langle J_0 \rangle_{1365} = 30.8 \text{ MeV}^{-1}$, and $\langle J_0^{(0)} \rangle_{852} = 51.9 \text{ MeV}^{-1}$.

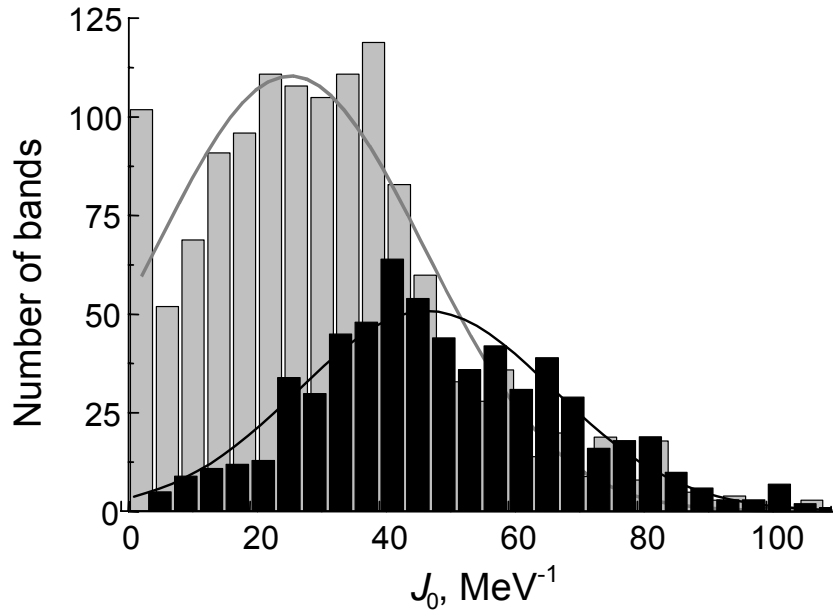


Fig. 10. Distributions of the moments of inertia in band groups described by the variable moment of inertia model (light rectangles and line) and by its adiabatic approximation (dark notations).

Distribution of the rotational bands with the adiabatic description over the mass number is given in Fig.25 of Appendix. It has no peculiarities compared to the initial distribution in Fig.4. The systematics of the moments of inertia $J_0^{(0)}$ for the adiabatic bands is given in Fig.26 as well.

The systematics of the parameters J_0 and C as function of the mass number A for the bands permitting the non-adiabatic description is given in Figs.11, 12. The analogous systematics of the dimensionless parameters of non-adiabaticity $G = CJ_0^3$ is presented in Fig.27 of Appendix.

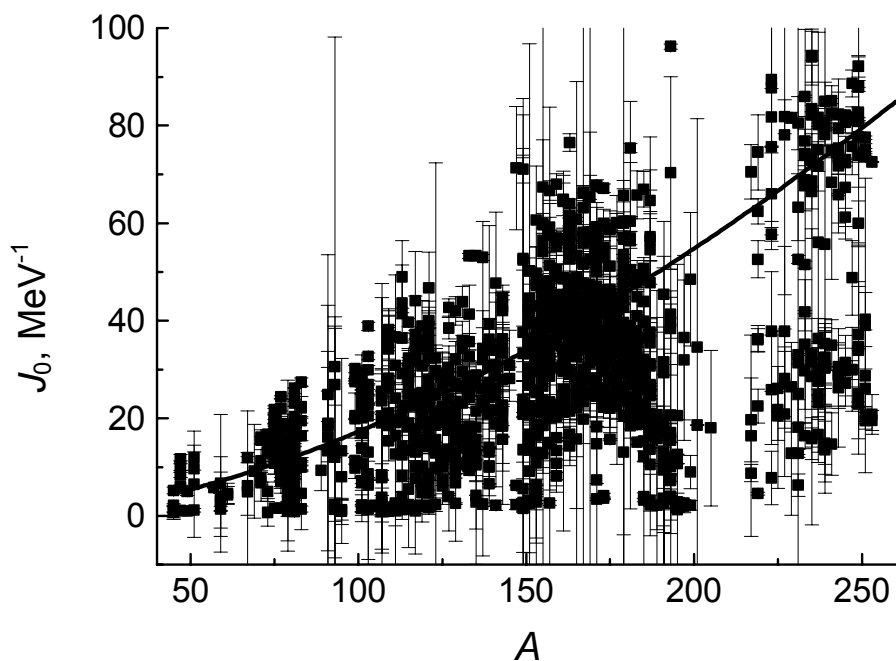


Fig. 11. Mass dependence of the moments of inertia in the bands having the non-adiabatic model description.

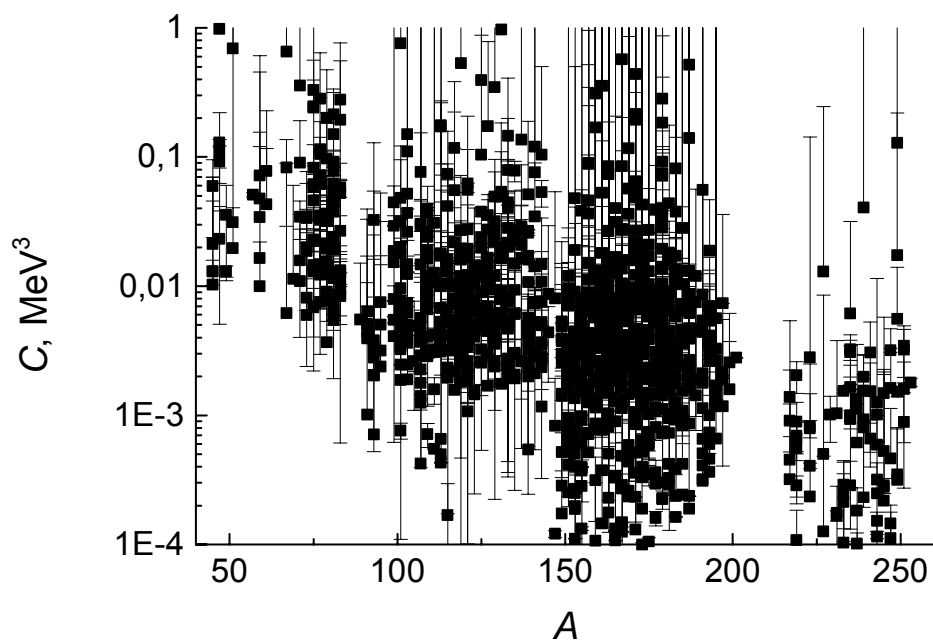


Fig. 12. Systematics of the nuclear hardness or elasticity parameters for the bands having the non-adiabatic model description.

In these figures (as in Fig.9 and further) the values of the parameters are given with errors reflecting the statistical uncertainty of their determination. The large uncertainties correspond to larger values of the error Δ of the description of the level energies in the band given.

Drawn in Fig.11 is a fitted curve $\approx A^{5/3}$, which reflects the mass dependence of the rigid-body moment of inertia of a nucleus. Two areas of the values of the moments of inertia are distinguished in the region of heavy nuclei with $A > 210$: the upper part corresponding to the systematics and the lower one. The bands for which the equilibrium shape of a nucleus in the head state is apparently distinct from the ellipsoid of rotation relate to the lower area. It is remarkable that the adiabatic approximation is not needed for them; see Fig.26 in Appendix, where this area of values of the moments $J_0^{(0)}$ is totally absent.

The global systematics of the hardness or elasticity parameters C does not confirm the assumption about their constancy put forward in ref. [12] on the basis of a similar analysis carried out in a limited region of rare-earth nuclei $50 < Z < 82 < N < 126$. Looking at Fig.12 one can assume that the hardness is inversely proportional to the mass number: $C \approx A^{-1}$. However an attempt to safely single out the functional dependence of the hardness parameter depending on the mass number in all mass regions has failed due to large scattering of the values and due to their statistic uncertainties.

As shown above, (Fig.8 and Fig.21 in Appendix) the distribution of the model description errors or accuracies Δ can be approximated with a sum of two exponents with decrements differing by more than 20 times. This enables us to pick out from the bulk of the rotational bands described non-adiabatically 895 bands with errors $\Delta \leq 50$ keV and among them 432 bands with “ideal” description $\Delta \leq 5$ keV. The distributions of the rotational bands and the model parameters for these two sets are given in Figs.13 - 15.

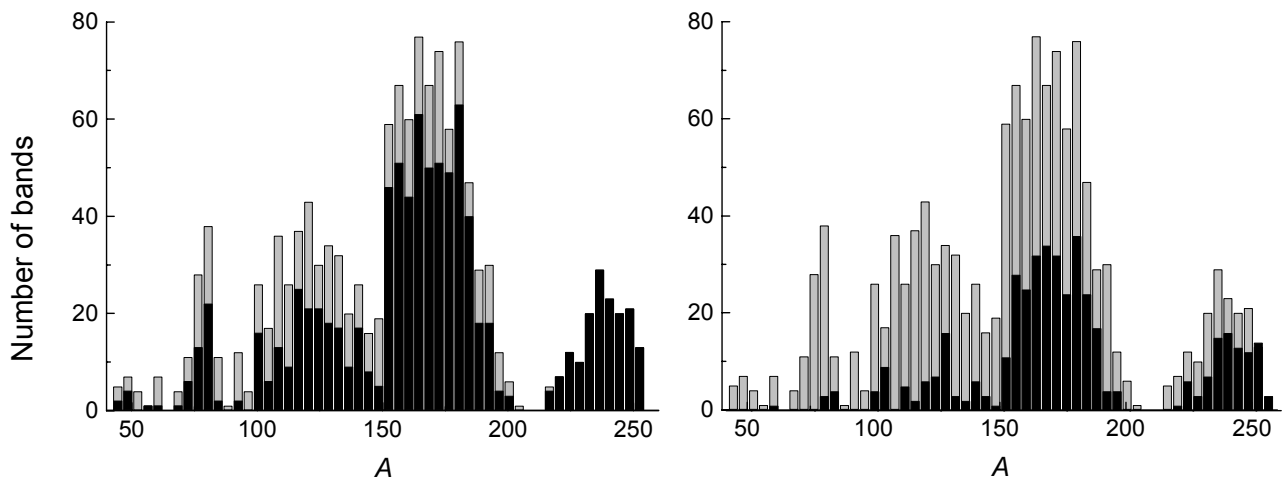


Fig. 13. Mass distributions of the rotational bands having the non-adiabatic model description with $\Delta \leq 50$ keV (894 bands, left part) and with $\Delta \leq 5$ keV (432 bands, right part). Light histograms are the initial distributions without limitations in accuracy (1365 bands).

Let us notice that the mass distributions of the number of rotational bands, Fig.13, are similar in shape to the initial distribution, i.e. the representation of all the groups of nuclei is still maintained among the “selected” bands. Naturally a great deal of the “ideal” ($\Delta \leq 5$ keV) bands relate to the region of rare earth and transuranium nuclei. The properties of these nuclei correlate to the most degree with the assumptions underlying the model that describes the hard, strongly deformed nuclei with the axial symmetry.

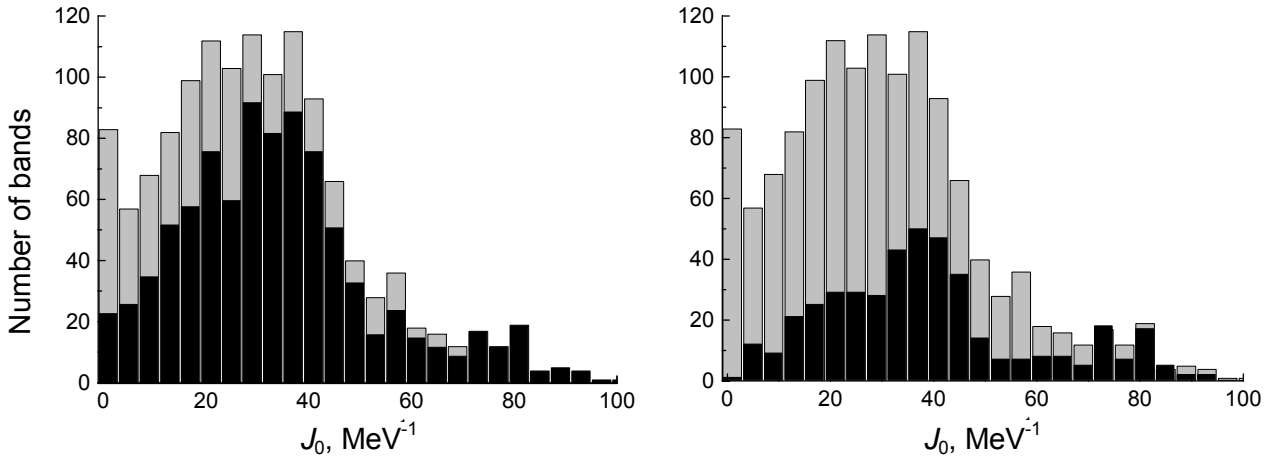


Fig. 14. Distributions of the moments of inertia for bands described with given accuracy. Notations are the same as in the previous figure.

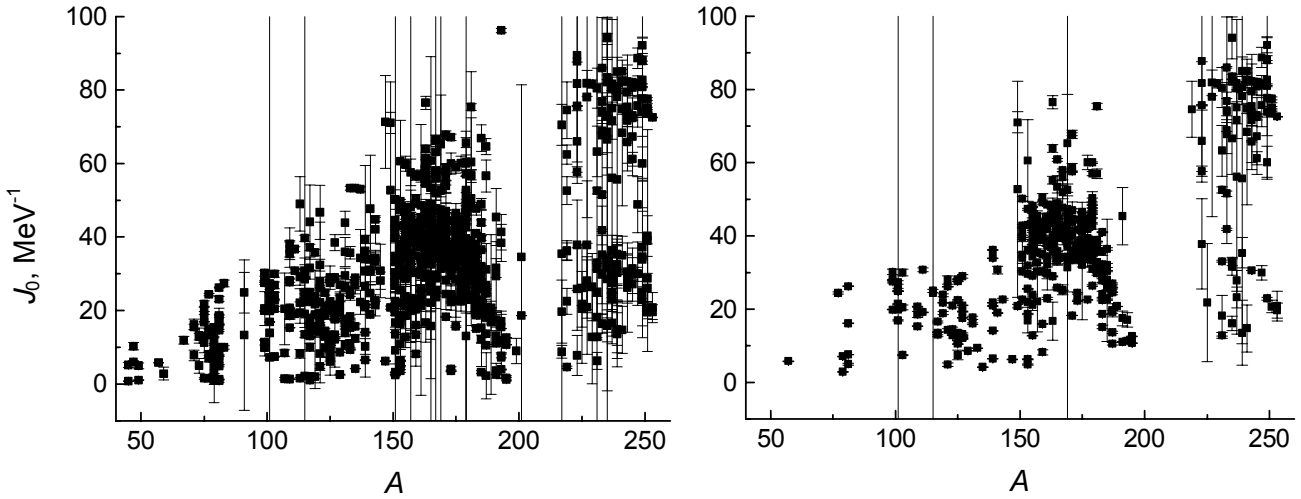


Fig. 15. Mass dependence of the moments of inertia for the bands having the non-adiabatic model description with $\Delta \leq 50$ keV (895 bands, left side) and with $\Delta \leq 5$ keV (432 bands, right side).

The systematics of the moments of inertia J_0 shows that their values are grouped around the mean values in each group of deformed nuclei, with the distributions of the moments in values having distinct Gauss like character in each group. Small moments of inertia (the first channel on histogram in Fig.14) are characteristic of bands with the “poor” accuracy of the description; the properties of these bands do not meet basic approximations of the model. Unfortunately the number of superdeformed bands with the definite spins (11 out of 136) is too small for the special analysis and for the safe statistical conclusions. However one can note that the parameters of their model description are anomalously large taking into account the mass dependence of the moments of inertia J_0 and the hardness C (the parameters of non-adiabaticity $G > 10^3$, see Fig.27 in Appendix) and they distinguish the superdeformed bands out of the common ensemble and correspond to ideas about their nature [7].

Reconstruction of rotational bands on the basis of the systematics

In the large number of cases the results of model description enable us to make a “reconstruction” of rotational bands in odd-mass nuclei on the basis of the systematics. Here reconstruction means any change of the information compared to the *ENSDF*.

Firstly, this is a problem of “superfluous” levels. Sometimes in the *ENSDF* some levels with the equal spins are assigned to the same band. The model description enables to choose among them the level, which fits the systematics better. The levels assigned to the given band in the *ENSDF* by mistake, e.g. levels of the opposite parity, are also “superfluous”. Naturally, the extra levels were not taken into account, when determining the parameters of the model. The examples of rotational bands with the “superfluous” levels are given in Fig.16. Altogether 43 such bands were found, mostly in regions of transitional nuclei.

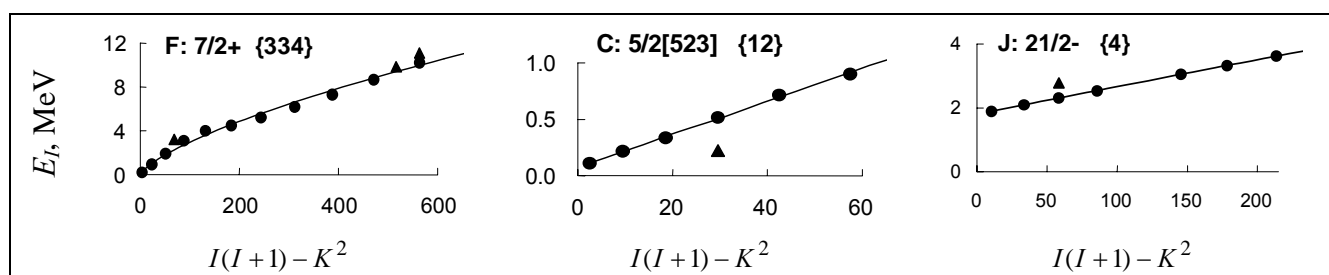


Fig. 16. Energy diagrams of the rotational bands with superfluous levels (triangles) in ^{107}Cd , ^{153}Gd and ^{181}Os .

The second example of the reconstruction of rotational bands is an unification of the bands in “horizontal” direction. The signature partners considered in the *ENSDF* as independent bands with $\Delta I = 2$ (see e.g. Fig.2) proved to have close values of the parameters J_0 and C that determine the dynamics of the band. This fact was chosen as a base for the unification of the bands. The criterion of the unification was a decrease of the total error Δ . In the headlines of the united bands we use the sign of the sum and the letters of the initial “halves”, e.g.: A+a: 5/2[523] or B+C: 3/2⁺. In rare cases ($A = 125$) bands with $\Delta I = 1$, but with the significant signature splitting, have a more complex notation in the *ENSDF*, e.g.: A,B: 1/2⁺ and C,D: 7/2⁺ in ^{125}Xe . In these cases we simply conserve the original headlines of the bands.

The algorithm used for the unification of bands is illustrated in Fig.17 with the more complex example of 4 bands: I: 19/2⁺, J: 17/2⁺, K: 21/2⁺ and L: 19/2⁺ in ^{171}Yb [2]. The quantum numbers permit four versions of the unification of the signature partners. Taking into account the values of the model parameters and the value of error Δ , two were taken among them: I+K: 19/2⁺ and J+L: 17/2⁺.

Though the model of variable moment of inertia in the version used here does not pretend for the description of the signature splitting, its dynamic parameters for united bands fit the global systematics better than the parameters of the initial “halves”. As a result we built 263 bands with $\Delta I = 1$ (out of 992 “halves” with $\Delta I = 2$ in the database *ROTON*) united in the signature and included them in the Atlas.

Due to selection rules the distributions of the dynamic parameters of united bands are similar to the initial distributions. The dependence of moments of inertia on mass number A for united bands is shown in Fig.18. For comparison it is superimposed on the analogous dependence for the bands with $\Delta \leq 50$ keV (Fig.15). It is remarkable that this systematics is complementary to the initial one; it is not superimposed to the initial systematics uniformly, but fills in the hollow places on the plot without

breaking the whole ensemble. The localization of the united bands is in the region of transitional nuclei, where the signature effects are strong, as shown in Fig.28 in Appendix.

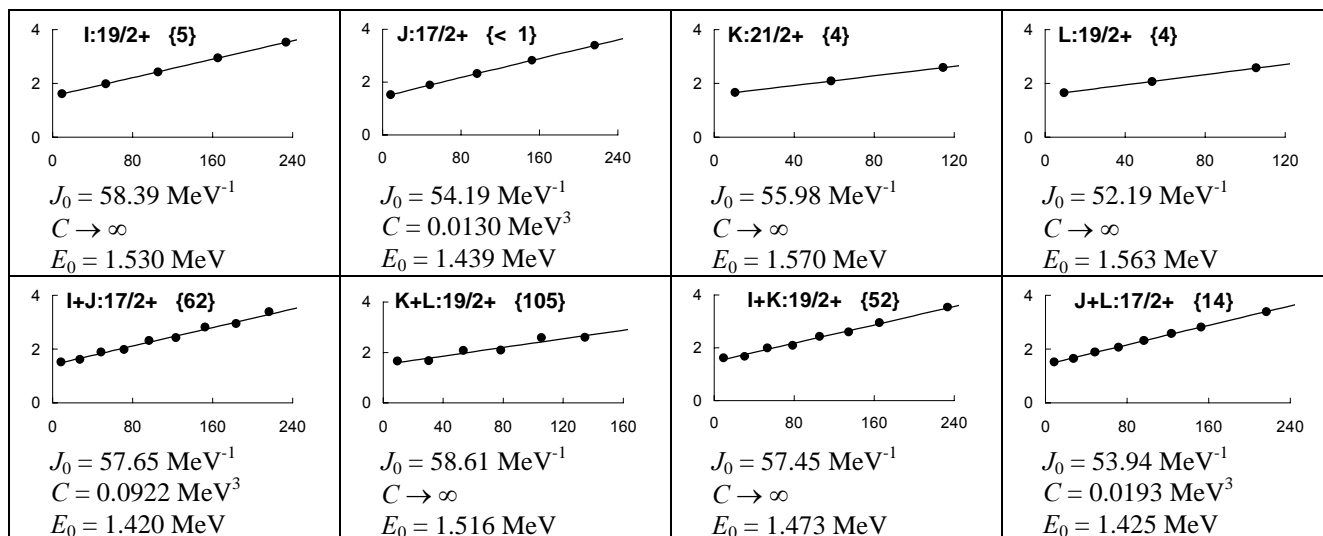


Fig. 17. Example of signature unification of the bands in ^{171}Yb .
 The initial bands and the parameters of their description are in upper part.
 The results of possible unification are given in lower part.

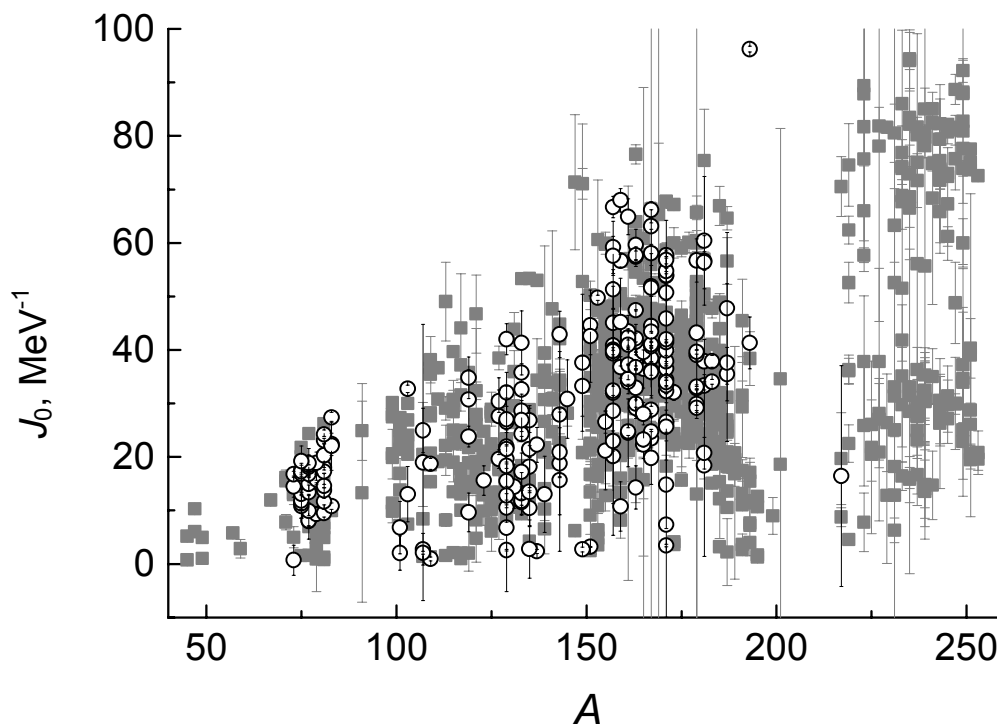


Fig. 18. Systematics of the moments of inertia for the unified bands depending on the mass number (hollow circles). Dark squares represent the initial systematics for bands with $\Delta \leq 50 \text{ keV}$.

The third type of the reconstruction is an unification of the bands in the “vertical” direction. Using the same statistical grounds as earlier it is possible to unite the fragments of rotational bands placed in the different spin regions and considered in the *ENSDF* to be independent. For example, the band C+D: $7/2[633]$ in ^{171}Yb is built on the basis of the band C: $7/2[633]$, supplemented with a fragment D with $I \geq 27/2$. In more complex cases all the letters referring to headlines of two or more fragments are used in the headline of the united bands as this was done in bands F+G+H: $17/2^-$ in ^{83}Y or A+H+K: $5/2[523]$ in ^{165}Yb . Sometimes one letter of the “main” fragment is used. For example, five bands in ^{167}Tm are put together out of three fragments each:

$$\begin{aligned} \text{A: } 1/2[411] (I \geq 1/2^+) + \text{J: } 1/2[411] (I \geq 11/2^+) + \text{V: } 1/2[411] (I \geq 25/2^+) &\rightarrow \text{A: } 1/2[411], \\ \text{B+K+W} &\rightarrow \text{B: } 1/2[541], \\ \text{C+L+T} &\rightarrow \text{C: } 7/2[404], \\ \text{D+M+T} &\rightarrow \text{D: } 7/2[523], \\ \text{E+O+S} &\rightarrow \text{E: } 3/2[411]. \end{aligned}$$

The fourth case of the reconstruction proposed refers to disjunction of the rotational bands. Sometimes there occur successions of levels noted in the *ENSDF* as rotational bands, though these bands are poorly described by the model of variable moment of inertia and do not follow the general systematics. However being disjointed into two independent bands, they get a good description and correspond to the general systematics. The band H: $11/2^-$ in ^{123}Cs can serve as a candidate for such disjunction. In our mind bands including the levels of the different parity should be dissociated. In the present version of the Atlas we did not dissociate the bands limited themselves with the indication to “superfluous” levels. Altogether there are some 30 bands in the whole region of the mass numbers demanding the dissociation.

At last the model description permits to predict the position of rotational levels. Sometimes, e.g. in the band E: $3/2^+$ in ^{171}Re the predicted levels were identified in the spectrum. This refers to the states with unknown spin, but placed in the band given in the *ENSDF*. A change of the band headlines can also be considered as the reconstruction. Such a change is due to the choice of the quantum number K for carrying out the calculations. There can be found the bands in the *ENSDF* for which the value of the spin of the first state exceeds significantly that mentioned in the headline, which means that some first levels are missed. In these cases we follow the rule $K = I_{\min}$, i.e. that the band begins from the first observable level. For example, band B: $1/2[660]$ in ^{175}Re listed in the *ENSDF* begins from the $17/2^+$ state and does not display the decoupling effect characteristic of the band with $K = 1/2$. We adopted for it $K = 17/2$ and respectively changed the headline B: $17/2^+$.

Naturally, all the cases of our reconstruction are accompanied with the commentaries in the database *ROTON*. On the one hand this distinguishes them from a bulk of the data, and on the other hand permits to change a solution by refusal of the change of the initial information as the new information appears.

Appendix

Collected in this section are the plots supplementing an illustration material used in the main text. Thus, e.g. Figs.19, 20 show the distributions of the rotational bands in odd-mass nuclei depending on the number of the protons Z and the neutrons N , respectively. They supplement the analogous distribution against the mass number A , Fig.4.

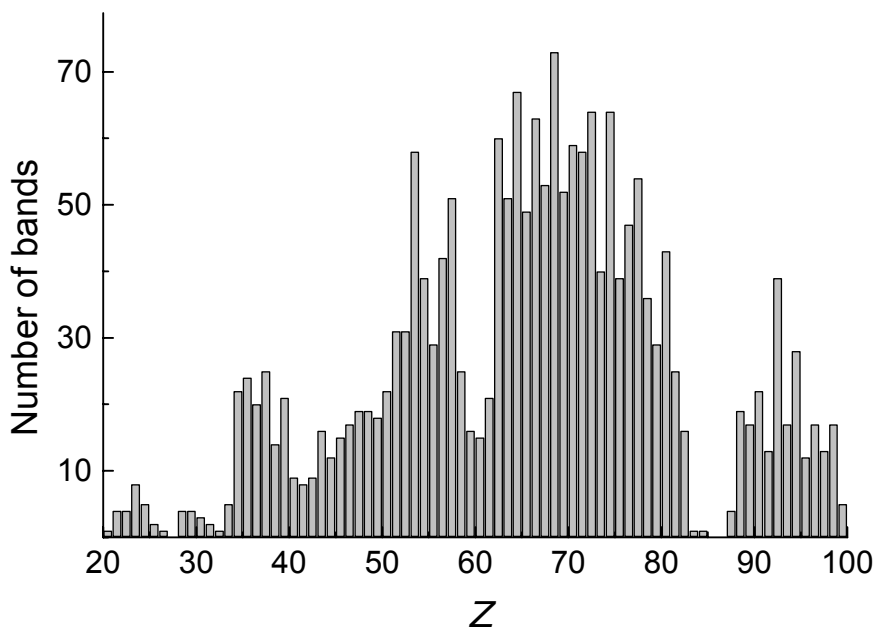


Fig. 19. Distribution of the rotational bands in odd-mass nuclei over the proton number.

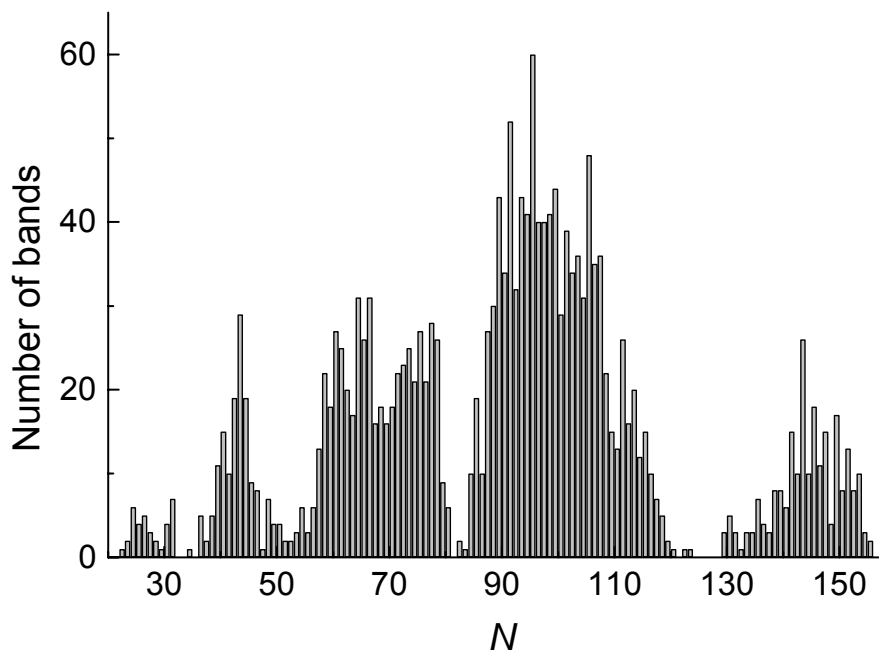


Fig. 20. Distribution of the rotational bands in odd-mass nuclei over the neutron number.

Fig.21 shows the beginning of the distribution of the rotational bands as a function of the accuracy of the model description Δ . Similarly to what was done in Fig.8 the histograms are approximated with exponents with the fitted parameters.

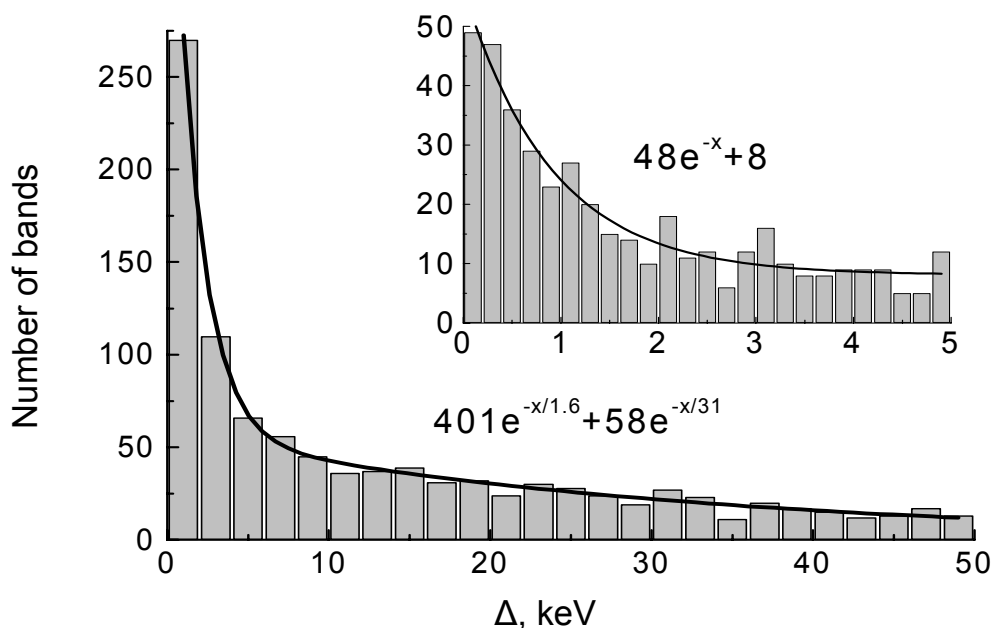


Fig. 21. The initial part of the distribution of the rotational bands over the accuracy of the model description.

Figs.22 - 24 refer to the systematics and the model description of the bands with $K = 1/2$. The distinguishing values of decoupling parameter a are connected with the band groups with the identical quantum numbers of the head states in different nuclei (see below, Fig.24). The relatively large number of the bands with $K = 1/2$ does not display the decoupling effect at all ($a \approx 0$).

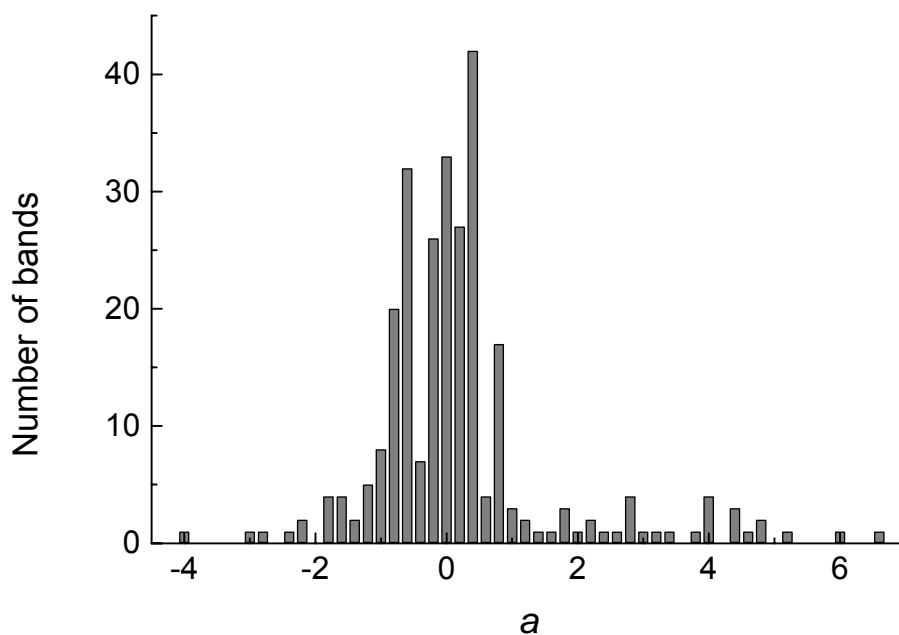


Fig. 22. Distribution of the decoupling parameters for all bands with $K = 1/2$.

The absolute values of the decoupling parameter a are matched up with the corresponding accuracy of the model description Δ for all the bands with $N > N_0$ in Fig.23. This plot testifies the absence of a correlation between them.

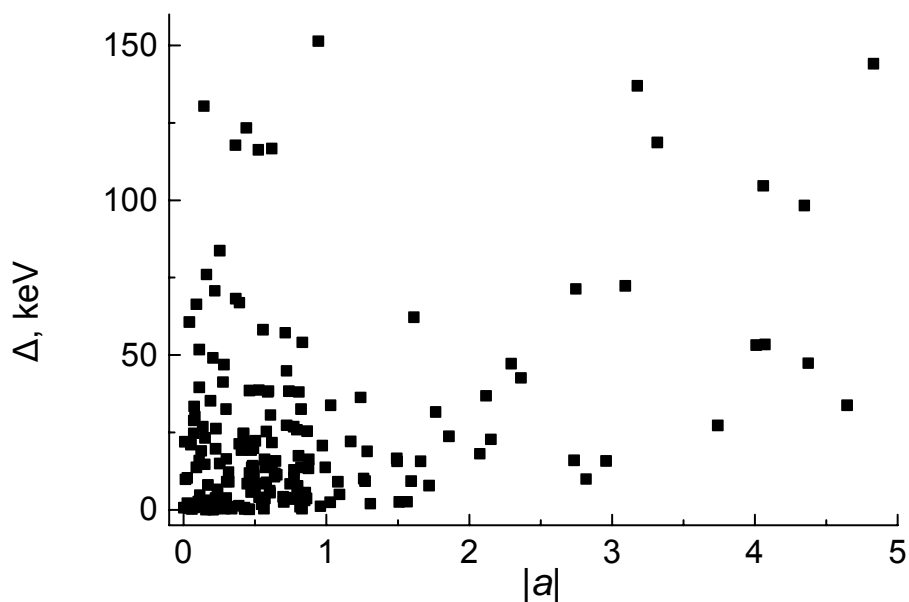


Fig. 23. Dependence of the accuracy of the model description of bands with $K = 1/2$ on the absolute values of the decoupling parameter.

The dependence of the parameter a for all bands with the quantum numbers $1/2[521]$ in odd-mass nuclei on the number of neutrons N is shown in Fig.24 (for ^{153}Sm $a = 0.338$, for ^{155}Sm $a = -0.219$). The band $0.41 \leq a \leq 0.89$ limits the area of the values permissible with the single particle model in this region of nuclei [14]. The observed correlations of the phenomenological values of the decoupling parameter in different nuclei and the coincidence of these values with those calculated “microscopically” enables one to judge about a single particle structure of the head state of these states.

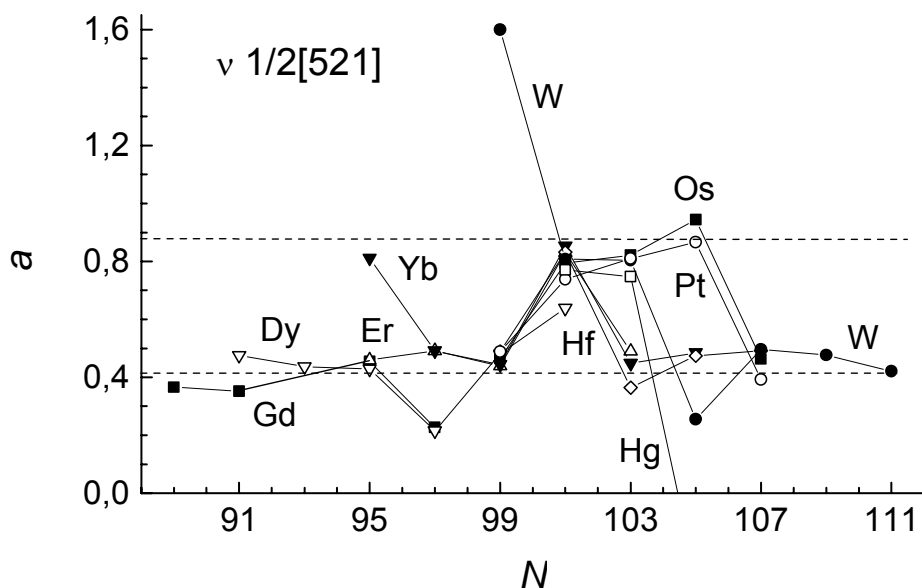


Fig. 24. Systematics of the neutron decoupling parameters for the bands $1/2[521]$ over the neutron number. The area of the single particle values is marked with dashes.

Figs.25, 26 refer to the analysis of the rotational bands permitting the adiabatic model description. The systematics of the “adiabatic” moments of inertia shows their linear increase with the mass number, though this conclusion is poorly defined statistically. Stress that strictly speaking the model of variable moment of inertia is not applicable for these bands.

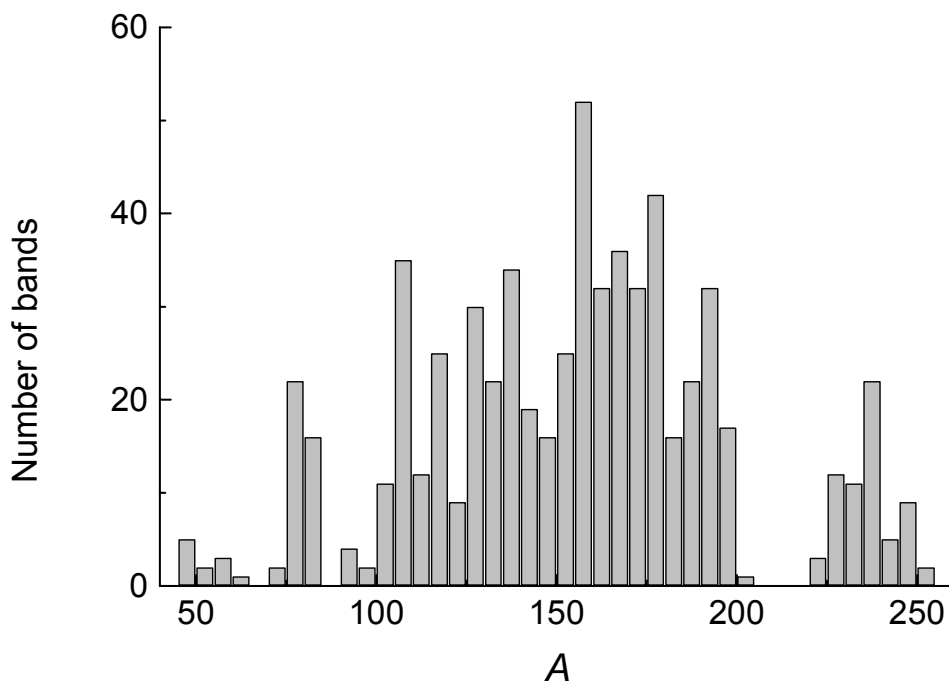


Fig. 25. Distribution of the rotational bands having adiabatic description over the mass number.

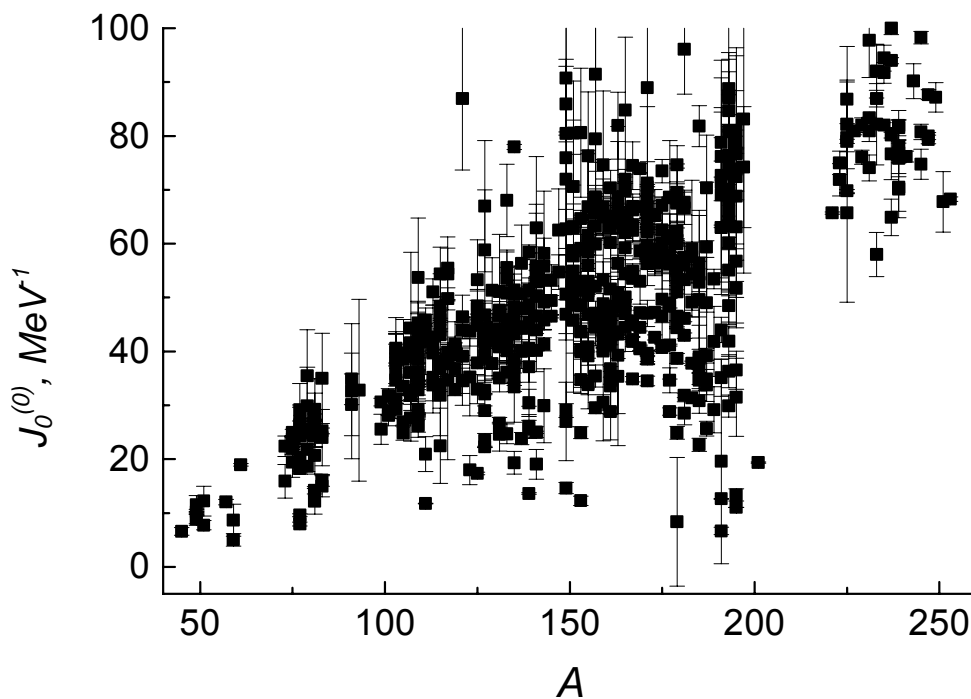


Fig. 26. Systematics of the “adiabatic” moments of inertia over the mass number.

The systematics of the parameters of non-adiabaticity $G = CJ_0^3$ depending on the mass number A is given in Fig.27. It supplements the systematics of the moments of inertia and the rigidity listed in Figs.11, 12 of the main text for all the bands permitting the non-adiabatic description.

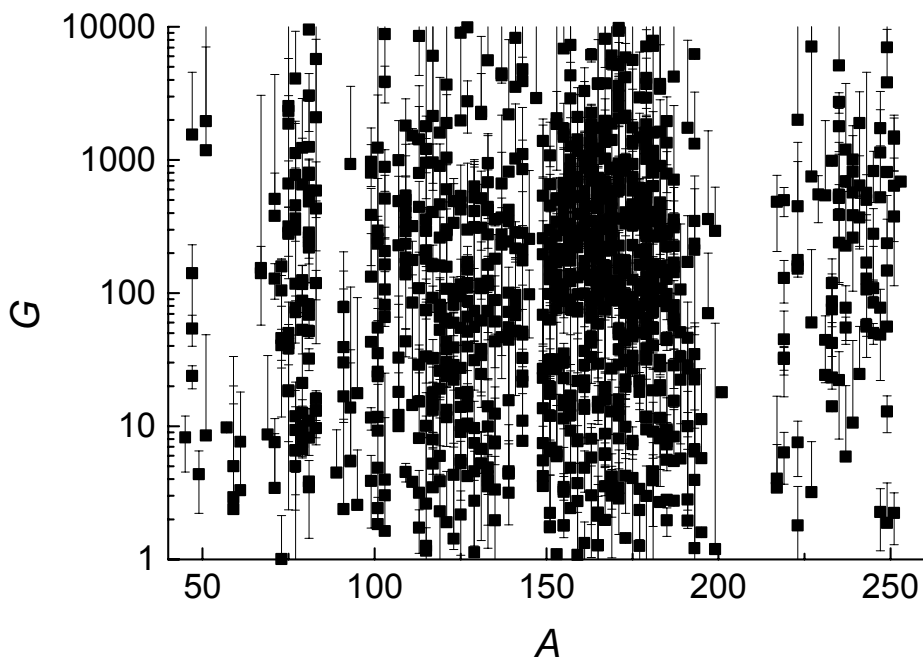


Fig. 27. Systematics of the non-adiabaticity parameters over the mass number.

The distribution of the rotational bands depending on the mass number taking into account all the types of the association is shown in Fig. 28. The cases of the signature association in horizontal direction described in the main body of Atlas constitutes vast majority of the total number of the associated bands.

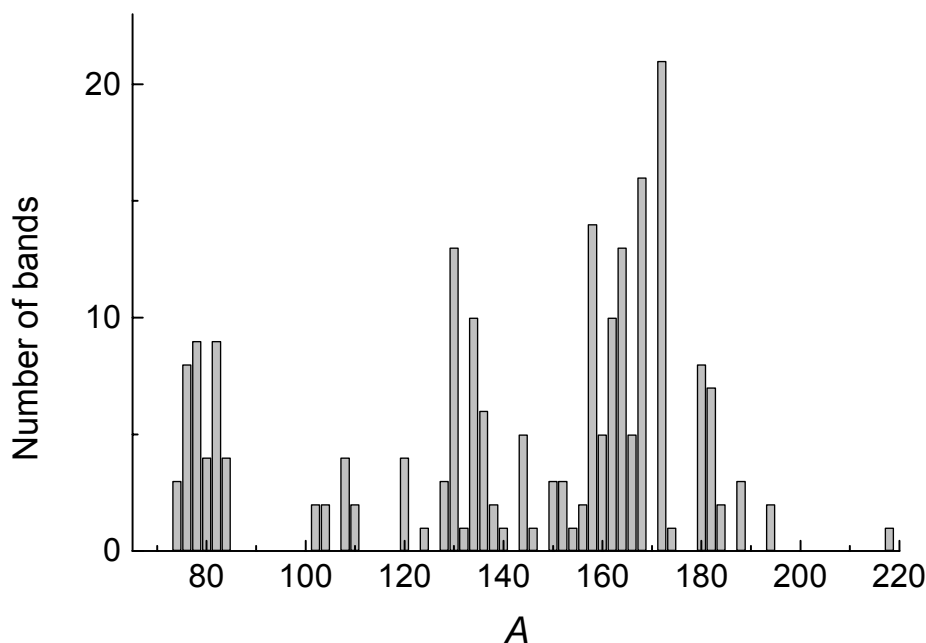


Fig.28. Distribution of the unified bands over the mass number.

Conclusion

In the overwhelming majority of papers the dynamics of the nuclear rotation is studied on an example of the basic rotational band of even-even nuclei. The rotation of odd-mass nuclei is studied only fragmentarily. The systematic study carried out by us reveals properties common for the rotation of any nucleus and a number of peculiarities of odd-mass nuclei. The main result of the work is a creation of the database *ROTON*, using the file of the evaluated data *ENSDF*, and of the complex of programs which permits to update the *ROTON*, to make any samples, to carry out the calculations and to present the results in a visual form. In particular the main diagrams and tables of Atlas are obtained automatically.

The systematic calculations made on the basis of the model of variable moment of inertia show its adequacy for describing most of the rotational spectra of odd-mass nuclei. Thus the main physical approximations of the model were justified, while the factors not taken into account have only correction character. The model calculations permit to single out a smooth component in the rotational spectrum and to proceed to an analysis of the different effects for odd-mass nuclei. In the first turn, these are the signature effects and the effects of quasi-intersection of the levels.

The observed localization of the associated bands in the region of transitional nuclei confirms the hypothesis about connection of the signature effects with the non-axiality of the equilibrium shape of a nucleus. Stress that the generalization of the model of variable moment of inertia used here is based on the assumption about the axial symmetry of the nuclear surface. The refusal of this postulate leads to the necessity of the account of mixing of bands with $\Delta K = \pm 1$ and as a result to the appearance in the formula for the energy of the rotational level an item, which depends on level signature and changes its sign along the band (similarly to what was done, when taking into account the decoupling effect).

As seen from the systematics built, the signature splitting is not related to the octupole deformation that conserves the axial symmetry of nuclei. Indeed, in the region of heavy nuclei $A > 221$ the bands splitted in signature are not observed and correspondingly their association is absent.

At last the singling out from the systematics of the average but individual in each group values of the parameters of the model of variable moment of inertia, especially, J_0 , C and a , sets new tasks about their microscopic calculation, e.g. in the framework of the self-consistent cranking model. Such an approach was used in the analysis of the structural peculiarities of low-lying excited states of even-even nuclei $^{74-80}\text{Kr}$ and showed its efficiency [15].

The success of the phenomenological description of rotational band energies in odd-mass nuclei naturally demands the analysis of the decay properties of the band states, first of all, of intraband electromagnetic transitions. It is evident that the corresponding model should effectively take into account stretching of the nuclei at rotation. A compilation of the experimental data (transition intensities and multipolarities) can be produced on the basis of the *ENSDF*. The matching up of the behavior of the “energy” and “decay” model parameters for various nuclei and the finding out of the new common and specific regularities are of great interest.

The systematics of the properties of rotational bands has large applied meaning in the estimation of the nuclear data. It can be used as an independent means for testing the quality of the initial information, for resolving the problems of the non-unique identification of levels and for eliminating the mistakes in the *ENSDF*.

Acknowledgements

The authors would like to thank collaborators of the Data Center of PNPI for their continuous attention to the work and for friendly support. We are grateful to the participants of all the seminars to which this paper was reported for interesting questions and advices promoted to the finding of the most acceptable form of the presentation of material. Special thanks are due to Ms. S.Maluytenkova for her help in programming in the VBA and to Dr. S.Sakharov for the valuable comments during our work and for the interesting discussion of the results.

An activity of the Data Center was supported in part with Scientific program of the St.-Petersburg Scientific Center of the Russian Academy of Sciences in 2000-2003 and with the scholarship of the Governor of Leningrad region. We appreciate highly this support.

One of the authors (I.M.) thanks the IAEA Nuclear Data Section, and Dr. V.Pronyaev personally, for friendly support and hospitality during his stays in Vienna.

References

1. **De Voigt M.J.A., Dudek J., Szymanski Z.** //Rev. Mod. Phys., 1983, v.55, p.949.
 2. **Baglin C.M.** //Nucl. Data Sheets, 2002, v.96, p.399.
 3. **Bohr A., Mottelson B.** "Nuclear Structure", v.2, Benjamin, New York, Amsterdam, 1969.
 4. **Dzhelepov B.S., Dranitsina G.F., Mikhailov V.M.** //"Properties of deformed nuclei with $K=1/2$ ". Nauka, Leningrad, 1971, p.251.
 5. **Blachot J.** //Nucl. Data Sheets, 1999, v.86, p.151.
 6. **Nuclear Data Sheets.** Current issues, 1980-2003.
<http://www.nndc.bnl.gov/nndc/ensdf/>.
 7. **Singh B., Zywina R., Firestone R.B.** //Nucl. Data Sheets, 2002, v.97, p.241.
 8. **Alenicheva T.V. et al.** //"Clustering phenomena in nuclear physics", 50th Meeting on Nuclear Spectroscopy and Nuclear Structure, St.-Petersburg, 2000, p.112.
 9. **Mariscotti M.A.J., Scharff-Goldhaber G., Buck B.** //Phys. Rev., 1969, v.178, p.1864.
 10. **Bonatsos D., Klein A.** //At. Data and Nucl. Data Tables, 1984, v.30, p.27.
 11. **Gregory P.R., Taylor T.** //Phys. Lett., 1972, v.41B, p.122.
Maki-Kuutti K., Hammaren E. //Nucl.Phys., 1983, v.A411, p.125.
 12. **Mitropolsky I.A.** //Yad. Fiz., 1999, v.62, p.626.
 13. **Saethre O. et al.** //Nucl.Phys., 1973, v.A207, p.486.
 14. **Istomin S.S., Mitropolsky I.A.** //45th Meeting on Nuclear Spectroscopy and Nuclear Structure, St.-Petersburg, 1995, p.126.
 15. **Lemberg I.Kh., Mitropolsky I.A.** //Izv. AN SSSR, ser. fiz., 1991, v.55, p.30.
-

Explanations to diagrams and tables of the Atlas

The main part of the information in the Atlas is presented below in the form of diagrams and tables ordered in the mass number A , as adopted in the *ENSDF*. Given for each value of A is the reference to the most recent publication. Stress that when filling in the information into the database *ROTON*, we use the electronic version of the *ENSDF* updated continually. The data presented corresponds to the end 2002.

The typical diagram is a plot of the energy values of the rotational levels E_I in units of MeV depending on their spins $I(I+1) - K^2$ in units of \hbar^2 . To save space, the headlines of axes identical for all the diagrams are omitted, however the plot scales are different. The experimental data are depicted with dots; the calculated ones are shown with the continuous curve. Given in figure brackets near the headline of the band in the diagram is the accuracy of its theoretical description Δ in units of keV.

All the experimental data collected in the *ENSDF* are shown in the diagrams of the Atlas. The “superfluous” levels are marked with the triangles and in such cases the corresponding commentaries are given in tables.

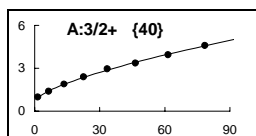
The experimental and the calculated values of the energies of the rotational levels (in units of MeV) are listed in the tables of the Atlas. Given in the first column of table are notations of the nuclides in the same form, as in the *ENSDF*. The next ten columns corresponds to the spins $I=K, K+1, \dots, K+9$ for ten first levels of a band (for five levels of “halves” with $\Delta I = 2$). The upper line of the table corresponds to the experimental values; the lower one corresponds to the calculated ones. The experimental values of the “superfluous” levels are not listed in the table, but a commentary is given. Given in brackets are the energies of the levels referred to in the *ENSDF* as belonging to the particular band but not having the definite spins. The spins of such levels were assigned by using the proximity the energy value to the calculated one. Of course, these levels were omitted, when determining the parameters.

The notes and the commentaries are collected in the last column of the table. The maximum spin I_{\max} of the rotational level in the band is listed in that column, if $I_{\max} > K + 9$. The cases of an association of the bands in “horizontal” direction (signature partners) or in “vertical” direction (the fragments of the bands with the different spins) are mentioned in the headlines, as described above, and not commented in addition. For other commentaries the following notations are used:

- a – the calculation is carried out in the adiabatic approximation of the model, $C \rightarrow \infty$;
 - b – the change compared to the *ENSDF*, $K = I_{\min}$;
 - c – the band was corrected using the results of the calculation (as a rule, “superfluous” levels are excluded);
 - s – the band marked in the *ENSDF* as “superdeformed” (most of the superdeformed bands have no definite spins and are not included in the Atlas, but are contained in the data base);
 - x, y, z – the experimental energies of the rotational levels are determined with an accuracy to the additive constant E_x , E_y or E_z ; this constant was not taken into account, but entered the calculation of the parameter E_0 .
-

Rotational bands in odd-mass nuclei with $43 \leq A \leq 253$
A=43

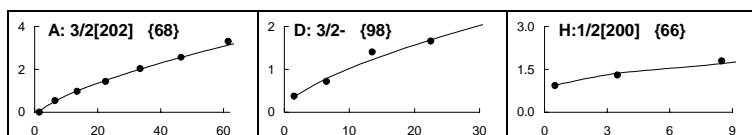
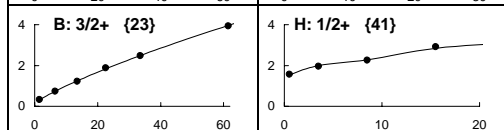
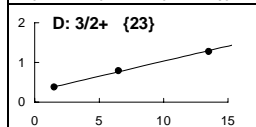
Cameron J.A., Singh B. //NDS, 2001,v.92, p.783

Ca


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{43}Ca	0.990	1.395	1.902	2.410	2.951	3.371	3.944	4.591	-	-	
A: $3/2^+$	0.984	1.428	1.884	2.369	2.883	3.425	3.991	4.582	5.194	5.827	

A=45

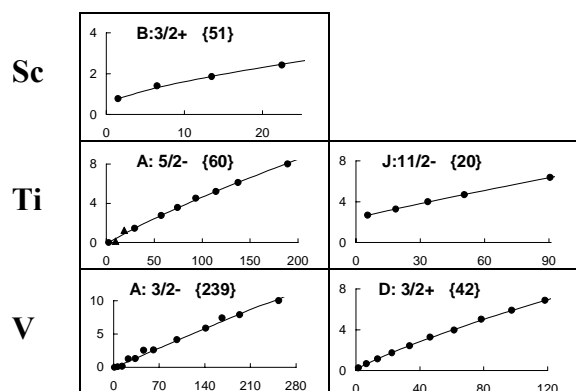
Burrows T.W. //NDS, 1992, v.65, p.1

Sc

Ti

V


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{45}Sc	0.012	0.543	0.974	1.433	2.031	2.563	3.295	-	-	-	
A: $3/2[202]$	0.075	0.532	0.999	1.494	2.017	2.567	3.143	3.742	4.363	5.005	
^{45}Sc	0.377	0.720	1.409	1.662	-	-	-	-	-	-	
D: $3/2^-$	0.367	0.793	1.229	1.689	2.176	2.688	3.223	3.779	4.356	4.953	
^{45}Sc	0.939	1.303	1.800	-	-	-	-	-	-	-	
H: $1/2[200]$	0.955	1.367	1.705	2.275	2.701	3.379	3.870	4.633	5.175	6.008	
^{45}Ti	0.329	0.744	1.227	1.882	2.475	-	(3.938)	-	-	-	
B: $3/2^+$	0.329	0.742	1.249	1.834	2.485	3.195	3.957	4.767	5.620	6.515	
^{45}Ti	1.566	1.958	2.258	2.912	-	-	-	-	-	-	
H: $1/2^+$	1.547	1.994	2.280	2.844	3.191	3.846	4.239	4.968	5.399	6.189	
^{45}V	0.386	0.797	1.273	-	-	-	-	-	-	-	
D: $3/2^+$	0.390	0.770	1.303	1.987	2.824	3.813	4.954	6.248	7.693	9.291	a

A=47

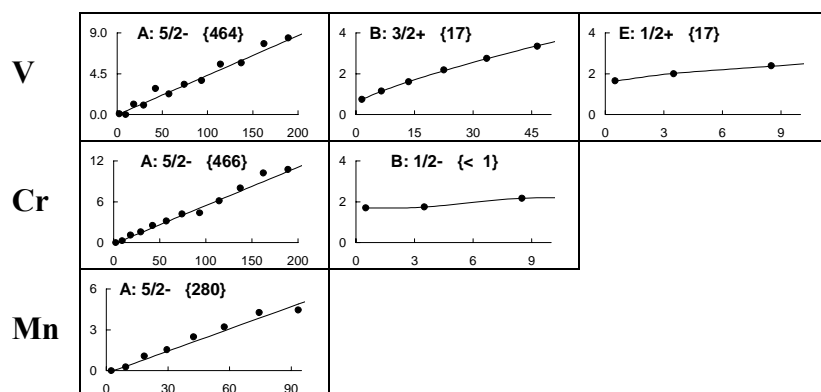
Burrows T.W. //NDS, 1995, v.74, p.1



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁴⁷ Sc	0.767	1.404	1.857	2.409	-	-	-	-	-	-	
B: 3/2 ⁺	0.781	1.315	1.868	2.456	3.081	3.739	4.428	5.146	5.892	6.663	
⁴⁷ Ti	0.0	0.159	1.252	1.444	-	2.749	3.568	4.494	5.197	6.089	27/2
A: 5/2 ⁻	0.0	0.398	0.885	1.450	2.085	2.785	3.543	4.355	5.218	6.128	c
⁴⁷ Ti	2.682	3.288	3.994	4.673	-	6.366	-	-	-	-	
J: 11/2 ⁻	2.683	3.291	3.967	4.705	5.502	6.354	7.258	8.211	9.211	10.254	
⁴⁷ V	0.0	0.088	0.100	1.272	1.295	2.558	2.614	-	4.133	-	31/2
A: 3/2 ⁻	0.0	0.214	0.513	0.897	1.364	1.915	2.547	3.261	4.054	4.927	
⁴⁷ V	0.259	0.660	1.139	1.747	2.416	3.272	3.955	5.001	5.886	6.871	
D: 3/2 ⁺	0.260	0.649	1.152	1.755	2.442	3.205	4.036	4.928	5.877	6.878	

A=49

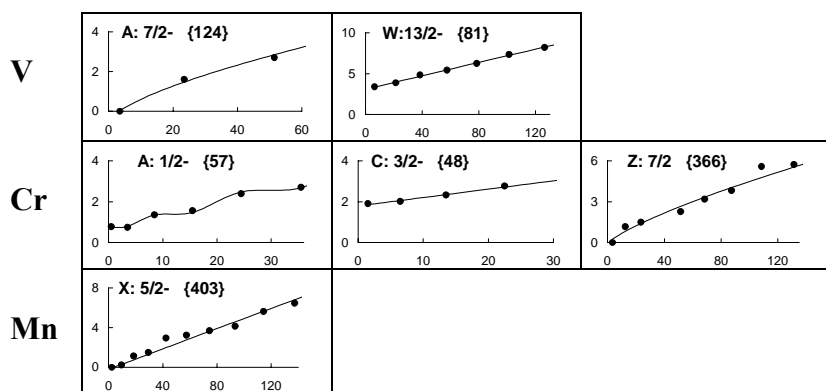
Burrows T.W. //NDS, 1995, v.76, p.191



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁴⁹ V	0.091	0.0	1.155	1.022	2.862	2.263	3.325	3.742	5.530	5.690	27/2
A: 5/2 ⁻	0.089	0.393	0.784	1.262	1.827	2.479	3.218	4.044	4.956	5.956	b
⁴⁹ V	0.748	1.141	1.603	2.178	2.741	3.342	-	-	-	-	
B: 3/2 ⁺	0.747	1.144	1.615	2.147	2.734	3.368	4.044	4.760	5.511	6.296	
⁴⁹ V	1.646	1.995	2.388	-	-	-	-	-	-	-	
E: 1/2 ⁺	1.640	2.014	2.366	2.844	3.273	3.831	4.319	4.940	5.474	6.148	
⁴⁹ Cr	0.0	0.272	1.083	1.561	2.498	3.189	4.217	4.365	6.135	8.008	27/2
A: 5/2 ⁻	-0.052	0.342	0.849	1.468	2.200	3.044	4.001	5.070	6.252	7.547	a
⁴⁹ Cr	1.703	1.741	2.169	-	-	-	-	-	-	-	
B: 1/2 ⁻	1.703	1.741	2.169	2.258	3.028	3.167	4.280	4.470	5.925	6.166	a
⁴⁹ Mn	0.0	0.261	1.059	1.541	2.481	3.189	4.250	4.446	-	-	
A: 5/2 ⁻	-0.050	0.329	0.818	1.415	2.120	2.934	3.857	4.888	6.028	7.276	a

A=51

Zhou Chunmei //NDS, 1997, v.81, p.183



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{51}V A: $7/2^-$	0.0 0.059	- 0.792	1.609 1.475	- 2.160	2.700 2.858	- 3.573	- 4.307	- 5.061	- 5.834	- 6.626	
^{51}V W: $13/2^-$	3.386 3.355	3.874 3.980	4.821 4.682	5.433 5.462	6.248 6.318	7.335 7.248	8.211 8.250	- 9.323	- 10.464	- 11.674	
^{51}Cr A: $1/2^-$	0.777 0.741	0.749 0.796	1.353 1.350	1.557 1.480	2.379 2.477	2.704 2.682	- 4.122	- 4.401	- 6.284	- 6.637	a
^{51}Cr C: $3/2^-$	1.899 1.852	2.002 2.057	2.313 2.344	2.767 2.713	- 3.164	- 3.697	- 4.313	- 5.010	- 5.790	- 6.651	a
^{51}Cr Z: $7/2$	0.0 0.283	1.165 0.827	1.480 1.402	- 2.011	2.256 2.655	3.181 3.332	3.817 4.041	5.563 4.779	5.711 5.546	- 6.339	
^{51}Mn X: $5/2^-$	0.0 -0.049	0.237 0.312	1.140 0.776	1.488 1.342	2.957 2.009	3.250 2.775	3.680 3.641	4.139 4.604	5.639 5.664	6.469 6.819	23/2

A=53

Huo Junde //NDS, 1999, v.87, p.507

Rotational bands are not present.

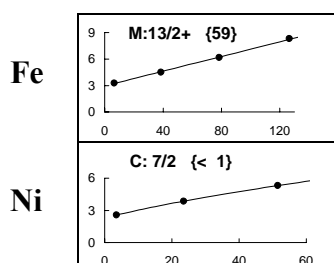
A=55

Huo Junde //NDS, 1991, v.64, p.723

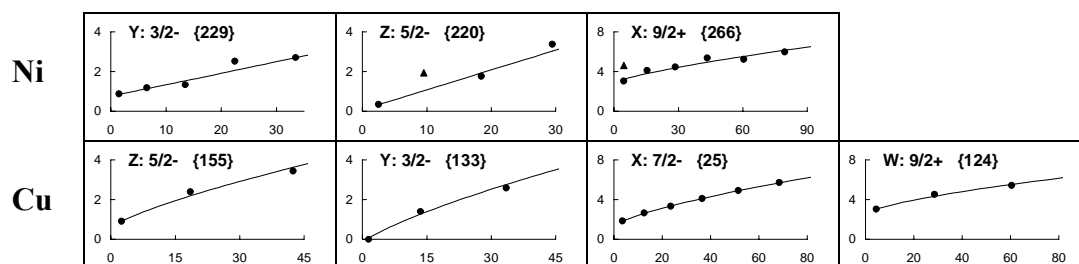
Rotational bands are not present.

A=57

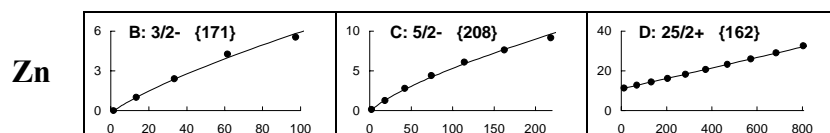
Bhat M.R. //NDS, 1998, v.85, p.415



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{57}Fe M: $13/2^+$	3.269 3.245	- 3.869	4.526 4.575	- 5.364	6.187 6.236	- 7.192	8.323 8.230	- 9.352	- 10.557	- 11.845	a
^{57}Ni C: $7/2^-$	2.578 2.578	- 3.202	3.865 3.865	- 4.571	5.318 5.318	- 6.106	- 6.930	- 7.791	- 8.685	- 9.611	

A=59
Baglin C.M. //NDS, 1993, v.63, p.733


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{59}Ni Y: $3/2^-$	0.878	1.189	1.338	2.530	2.705	-	-	-	-	-	
	0.854	1.142	1.546	2.066	2.701	3.451	4.317	5.299	6.396	7.608	a
^{59}Ni Z: $5/2^-$	0.339	-	1.767	3.377	-	-	-	-	-	-	
	0.338	1.037	1.936	3.035	4.333	5.831	7.529	9.427	11.524	13.822	a, c
^{59}Ni X: $9/2^+$	3.054	4.103	4.455	5.381	5.251	5.989	-	-	-	-	
	3.254	3.817	4.377	4.951	5.543	6.155	6.787	7.439	8.110	8.800	c
^{59}Cu Z: $5/2^-$	0.914	-	2.391	-	3.448	-	-	-	-	-	
	0.933	1.543	2.191	2.886	3.625	4.407	5.227	6.084	6.975	7.899	
^{59}Cu Y: $3/2^-$	0.0	-	1.399	-	2.587	-	-	-	-	-	
	0.077	0.633	1.273	1.986	2.764	3.600	4.489	5.425	6.405	7.426	
^{59}Cu X: $7/2^-$	1.865	2.664	3.329	4.100	4.903	5.722	-	-	-	-	
	1.870	2.629	3.366	4.119	4.895	5.698	6.526	7.381	8.262	9.166	
^{59}Cu W: $9/2^+$	3.043	-	4.528	-	5.428	-	-	-	-	-	
	3.078	3.743	4.347	4.941	5.538	6.144	6.762	7.392	8.035	8.691	

A=61
Bhat M.R. //NDS, 1999, v.88, p.417


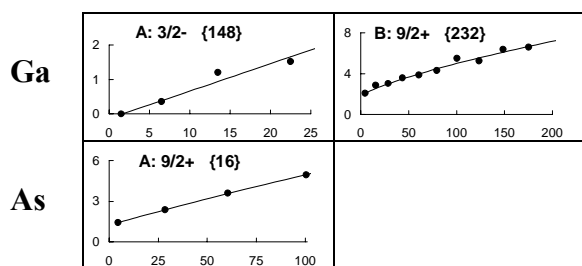
Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{61}Zn B: $3/2^-$	0.0	-	0.996	-	2.400	-	4.262	-	5.551	-	
	-0.007	0.452	1.013	1.658	2.376	3.158	3.996	4.887	5.825	6.807	c
^{61}Zn C: $5/2^-$	0.124	-	1.265	-	2.797	-	4.415	-	6.090	-	29/2
	0.124	0.702	1.320	1.984	2.692	3.440	4.226	5.048	5.903	6.790	c
^{61}Zn D: $25/2^+$	11.370	-	12.800	-	14.430	-	16.270	-	18.350	-	61/2
	11.287	11.999	12.765	13.583	14.454	15.378	16.354	17.383	18.465	19.600	a, s

A=63
Bai Erjun, Huo Junde //NDS, 2001, v.92, p.147

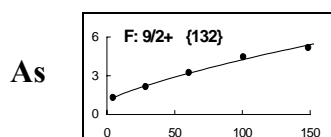
Rotational bands are not present.

A=65
Bhat M.R. //NDS, 1993, v.69, p.209

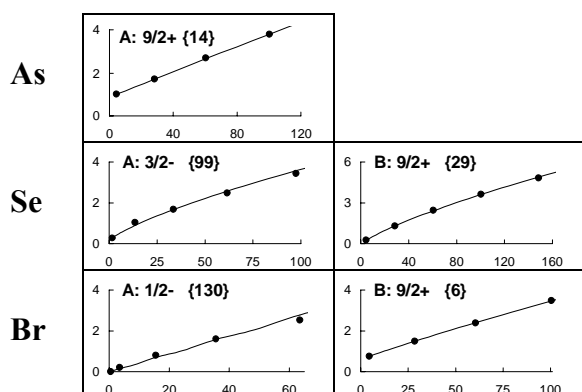
Rotational bands are not present.

A=67
Bhat M.R. //NDS, 1991, v.64, p.875


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{67}Ga	0.0	0.359	1.202	1.519	-	-	-	-	-	-	
A: $3/2^-$	-0.009	0.387	0.942	1.656	2.528	3.558	4.748	6.095	7.602	9.267	a
^{67}Ga	2.074	2.862	3.032	3.578	3.856	4.290	5.492	5.226	6.380	6.590	
B: $9/2^+$	2.079	2.547	3.011	3.485	3.975	4.481	5.003	5.542	6.096	6.666	
^{67}As	1.422	-	2.365	-	3.593	-	4.951	-	-	-	
A: $9/2^+$	1.421	1.867	2.376	2.945	3.568	4.243	4.967	5.735	6.547	7.399	a, c

A=69
Bhat M.R., Tuli J.K. //NDS, 2000, v.90, p.269


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{69}As	1.307	-	2.161	-	3.260	-	4.365	-	5.198	-	
F: $9/2^+$	1.300	1.757	2.221	2.702	3.202	3.721	4.260	4.817	5.391	5.983	

A=71
Bhat M.R. //NDS, 1993, v.68, p.579


ROTATIONAL BANDS IN ODD-MASS NUCLEI

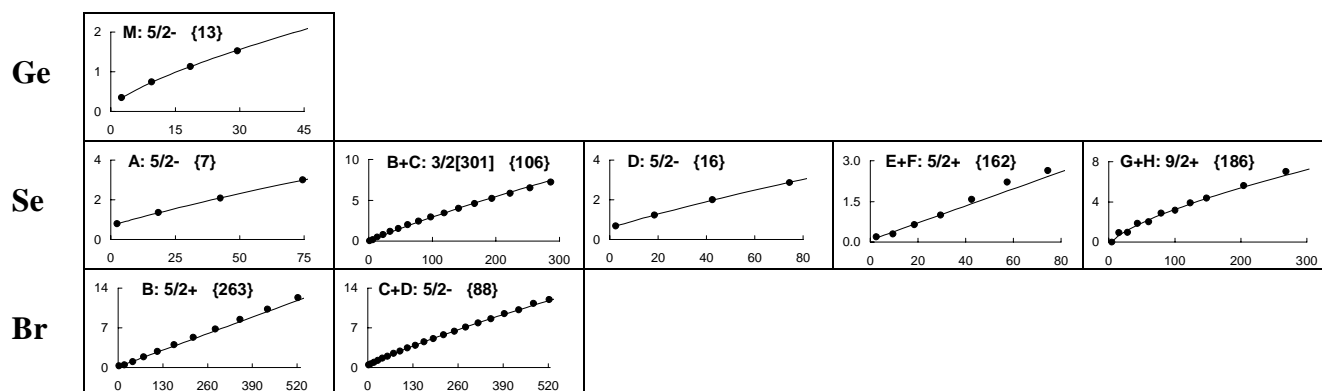
A=71

Bhat M.R. //NDS, 1993, v.68, p.579

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁷¹ As	1.000	-	1.715	-	2.689	-	3.788	-	-	-	
A: 9/2 ⁺	0.999	1.334	1.726	2.170	2.666	3.210	3.801	4.437	5.117	5.837	a
⁷¹ Se	0.282	-	1.041	-	1.681	-	2.481	-	3.427	-	
A: 3/2 ⁻	0.293	0.573	0.899	1.267	1.671	2.106	2.569	3.058	3.572	4.107	
⁷¹ Se	0.261	-	1.298	-	2.449	-	3.635	-	4.834	-	
B: 9/2 ⁺	0.260	0.782	1.309	1.854	2.418	3.004	3.611	4.238	4.885	5.551	
⁷¹ Br	0.009	0.207	-	0.806	-	1.611	-	2.518	-	-	
A: 1/2 ⁻	0.010	0.162	0.351	0.703	1.039	1.583	2.060	2.786	3.395	4.292	
⁷¹ Br	0.759	-	1.496	-	2.392	-	3.473	-	-	-	
B: 9/2 ⁺	0.759	1.102	1.492	1.926	2.402	2.916	3.466	4.050	4.665	5.311	

A=73

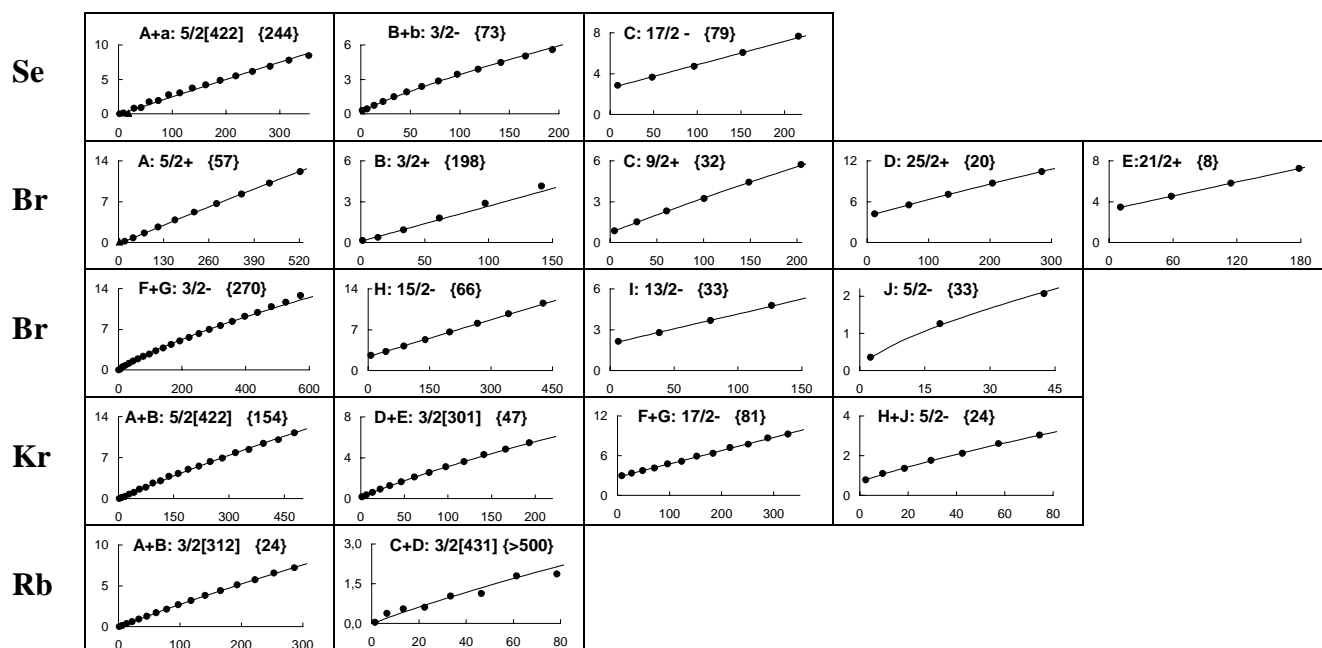
King M.M., Chou W.-T. //NDS, 1993, v.69, p.857



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁷³ Ge	0.354	0.742	1.131	1.526	2.004	-	-	-	-	-	
M: 5/2 ⁻	0.354	0.738	1.132	1.547	1.983	2.441	2.920	3.417	3.933	4.466	
⁷³ Se	0.791	-	1.357	-	2.091	-	3.007	-	-	-	
A: 5/2 ⁻	0.791	1.046	1.353	1.706	2.101	2.533	3.000	3.498	4.025	4.579	
⁷³ Se	0.026	0.151	0.506	0.805	1.181	1.554	2.005	2.436	2.953	3.443	33/2
B+C: 3/2[301]	0.025	0.194	0.426	0.716	1.059	1.451	1.889	2.369	2.889	3.446	
⁷³ Se	0.685	-	1.230	-	2.010	-	2.869	-	-	-	
D: 5/2 ⁻	0.684	0.935	1.239	1.591	1.986	2.418	2.886	3.386	3.916	4.475	
⁷³ Se	0.192	0.296	0.639	0.999	1.574	2.211	2.641	-	-	-	
E+F: 5/2 ⁺	0.159	0.379	0.662	1.008	1.417	1.889	2.423	3.021	3.681	4.404	a
⁷³ Se	0.0	0.943	0.973	1.864	2.018	2.876	3.176	3.918	4.390	-	33/2
G+H: 9/2 ⁺	0.088	0.670	1.194	1.706	2.220	2.741	3.271	3.810	4.360	4.921	
⁷³ Br	0.286	-	0.473	-	1.057	-	1.861	-	2.856	-	45/2
B: 5/2 ⁺	0.239	0.395	0.596	0.842	1.133	1.468	1.848	2.272	2.742	3.256	a
⁷³ Br	0.481	0.681	0.943	1.255	1.662	1.989	2.512	2.874	3.465	3.910	45/2
C+D: 5/2 ⁻	0.481	0.686	0.944	1.252	1.606	2.004	2.443	2.920	3.433	3.981	

A=75

Farhan A.R., Singh B. //NDS, 1999, v.86, p.785



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁷⁵ Se	0.0	0.112	0.133	0.814	0.934	1.741	1.911	2.766	3.019	3.746	37/2
A+a: 5/2[422]	-0.038	0.144	0.378	0.663	0.999	1.386	1.822	2.309	2.844	3.428	
⁷⁵ Se	0.287	0.428	0.748	1.079	1.488	1.905	2.391	2.872	3.432	3.885	27/2
B+b: 3/2 ⁻	0.272	0.473	0.741	1.065	1.440	1.861	2.322	2.820	3.353	3.917	
⁷⁵ Se	2.840	-	3.646	-	4.707	-	6.060	-	7.650	-	
C: 17/2 ⁻	2.795	3.226	3.703	4.225	4.792	5.404	6.062	6.766	7.514	8.308	a
⁷⁵ Br	0.132	-	0.221	-	0.784	-	1.614	-	2.659	-	45/2
A: 5/2 ⁺	-0.184	-0.008	0.219	0.494	0.819	1.193	1.615	2.084	2.600	3.163	
⁷⁵ Br	0.155	-	0.374	-	0.940	-	1.791	-	2.864	-	23/2
B: 3/2 ⁺	0.142	0.271	0.451	0.682	0.965	1.300	1.686	2.123	2.612	3.152	a
⁷⁵ Br	0.848	-	1.512	-	2.301	-	3.223	-	4.417	-	29/2
C: 9/2 ⁺	0.852	1.147	1.488	1.875	2.304	2.774	3.282	3.828	4.408	5.021	
⁷⁵ Br	4.199	-	5.526	-	7.077	-	8.693	-	10.410	-	
D: 25/2 ⁺	4.193	4.855	5.552	6.285	7.051	7.849	8.679	9.540	10.429	11.348	
⁷⁵ Br	3.430	-	4.525	-	5.811	-	7.225	-	-	-	
E: 21/2 ⁺	3.437	3.964	4.533	5.145	5.799	6.494	7.231	8.007	8.823	9.678	
⁷⁵ Br	0.0	0.119	0.518	0.774	1.150	1.516	1.897	2.356	2.756	3.274	49/2
F+G: 3/2 ⁻	-0.082	0.131	0.403	0.726	1.092	1.496	1.934	2.403	2.901	3.425	
⁷⁵ Br	2.606	-	3.226	-	4.172	-	5.294	-	6.587	-	43/2
H: 15/2 ⁻	2.540	2.898	3.299	3.742	4.228	4.755	5.325	5.937	6.591	7.287	a
⁷⁵ Br	2.133	-	2.776	-	3.665	-	4.782	-	-	-	
I: 13/2 ⁻	2.115	2.442	2.813	3.228	3.686	4.188	4.734	5.323	5.957	6.633	a
⁷⁵ Br	0.352	-	1.258	-	2.070	-	-	-	-	-	
J: 5/2 ⁻	0.353	0.794	1.220	1.659	2.113	2.584	3.072	3.577	4.097	4.633	

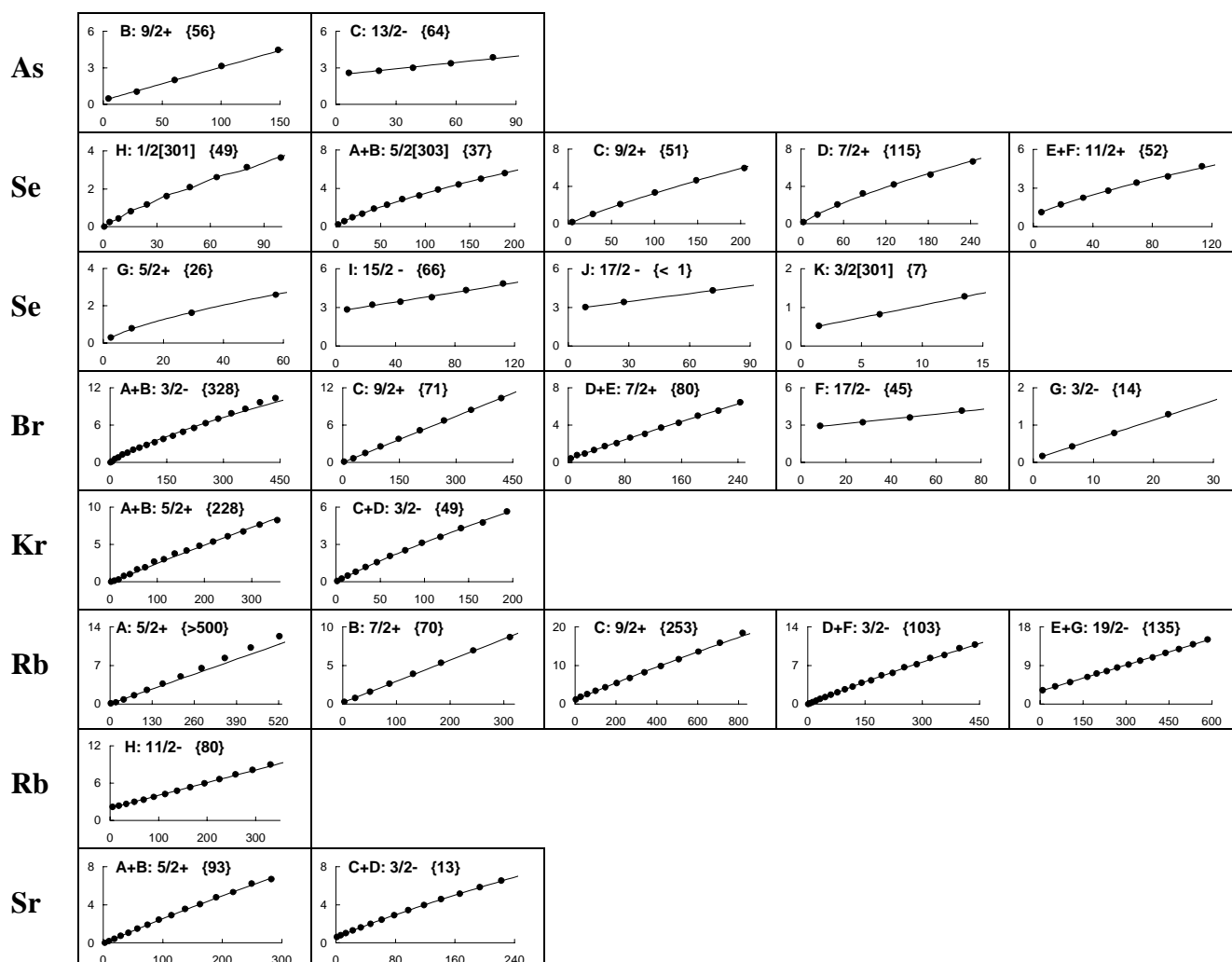
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=75 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
⁷⁵ Kr	0.0	0.187	0.378	0.770	1.067	1.594	1.964	2.629	3.049	3.824	45/2
A+B: 5/2[422]	-0.019	0.181	0.437	0.744	1.102	1.509	1.961	2.458	2.997	3.576	
⁷⁵ Kr	0.179	0.358	0.611	0.905	1.265	1.646	2.109	2.562	3.110	3.623	31/2
D+E: 3/2[301]	0.178	0.362	0.609	0.912	1.264	1.660	2.097	2.571	3.080	3.620	
⁷⁵ Kr	2.957	3.342	3.766	4.129	4.737	5.159	5.919	6.357	7.240	7.728	39/2
F+G: 17/2 ⁻	2.946	3.327	3.747	4.208	4.709	5.250	5.831	6.452	7.113	7.814	a
⁷⁵ Kr	0.786	1.099	1.364	1.759	2.113	2.611	3.040	-	-	-	
H+J: 5/2 ⁻	0.793	1.069	1.391	1.752	2.148	2.577	3.034	3.517	4.026	4.558	
⁷⁵ Rb	0.0	0.144	0.354	0.607	0.924	1.276	1.697	2.138	2.662	3.179	33/2
A+B: 3/2[312]	-0.002	0.145	0.349	0.609	0.921	1.284	1.695	2.152	2.654	3.197	
⁷⁵ Rb	0.038	0.378	0.542	0.610	1.037	1.125	1.785	1.858	-	2.780	49/2
C+D: 3/2[431]	0.040	0.205	0.424	0.691	1.001	1.348	1.729	2.142	2.584	3.052	

A=77

Farhan A.R., Singh B. //NDS, 1997, v.81, p.417



ROTATIONAL BANDS IN ODD-MASS NUCLEI

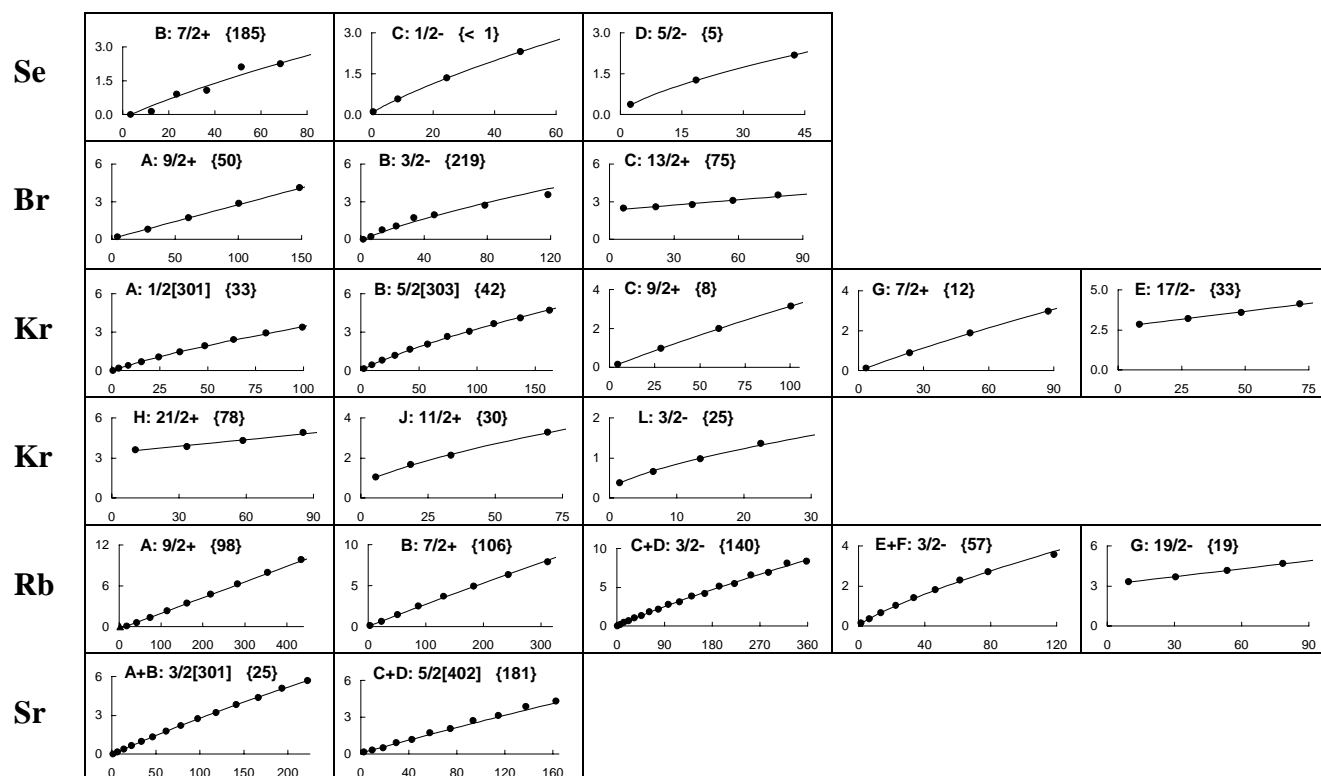
A=77

Farhan A.R., Singh B. //NDS, 1997, v.81, p.417

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
⁷⁷ As B: 9/2 ⁺	0.475 0.465	- 0.764	1.048 1.118	- 1.526	2.000 1.989	- 2.506	3.151 3.077	- 3.703	4.456 4.383	- 5.118	a
⁷⁷ As C: 13/2 ⁻	2.585 2.525	2.745 2.782	3.003 3.074	3.364 3.400	3.856 3.760	- 4.155	- 4.584	- 5.047	- 5.545	- 6.076	a
⁷⁷ Se H: 1/2[301]	0.0 0.004	0.239 0.231	0.440 0.446	0.808 0.846	1.172 1.149	1.617 1.662	2.092 2.028	2.611 2.625	3.148 3.042	3.641 3.708	19/2
⁷⁷ Se A+B: 5/2[303]	0.250 0.249	0.581 0.590	0.978 0.967	1.352 1.378	1.887 1.821	2.264 2.292	2.864 2.790	3.265 3.312	3.880 3.857	4.392 4.424	27/2
⁷⁷ Se C: 9/2 ⁺	0.175 0.175	- 0.583	1.024 1.040	- 1.540	2.103 2.081	- 2.661	3.334 3.275	- 3.922	4.626 4.601	- 5.310	29/2
⁷⁷ Se D: 7/2 ⁺	0.162 0.161	- 0.575	0.970 1.014	- 1.480	2.055 1.974	- 2.494	3.246 3.038	- 3.605	4.180 4.195	- 4.805	31/2
⁷⁷ Se E+F: 11/2 ⁺	1.127 1.131	1.722 1.698	2.240 2.252	2.790 2.813	3.410 3.385	3.885 3.973	4.671 4.576	- 5.195	- 5.830	- 6.480	
⁷⁷ Se G: 5/2 ⁺	0.301 0.304	0.796 0.757	- 1.197	1.621 1.648	- 2.116	2.580 2.602	- 3.105	- 3.626	- 4.162	- 4.715	
⁷⁷ Se I: 15/2 ⁻	2.818 2.817	3.201 3.132	3.440 3.484	3.765 3.873	4.321 4.299	4.847 4.762	- 5.262	- 5.799	- 6.373	- 6.984	a
⁷⁷ Se J: 17/2 ⁻	3.015 3.015	3.404 3.404	- 3.833	4.302 4.302	- 4.810	- 5.357	- 5.943	- 6.567	- 7.229	- 7.928	
⁷⁷ Se K: 3/2[301]	0.521 0.519	0.824 0.833	1.283 1.274	- 1.841	- 2.534	- 3.352	- 4.297	- 5.368	- 6.564	- 7.886	a
⁷⁷ Br A+B: 3/2 ⁻	0.0 -0.049	0.162 0.175	0.576 0.456	0.791 0.783	1.274 1.151	1.539 1.554	2.022 1.988	2.340 2.451	2.793 2.941	3.201 3.455	43/2
⁷⁷ Br C: 9/2 ⁺	0.106 0.104	- 0.376	0.640 0.696	- 1.066	1.483 1.485	- 1.954	2.551 2.472	- 3.039	3.775 3.655	- 4.321	41/2 a
⁷⁷ Br D+E: 7/2 ⁺	0.418 0.439	0.783 0.681	0.948 0.973	1.305 1.314	1.747 1.703	2.047 2.137	2.648 2.616	3.037 3.137	3.728 3.699	4.216 4.300	31/2
⁷⁷ Br F: 17/2 ⁻	2.932 2.899	3.220 3.259	3.610 3.657	4.150 4.093	- 4.567	- 5.079	- 5.629	- 6.217	- 6.843	- 7.507	a
⁷⁷ Br G: 3/2 ⁻	(0.167) 0.166	0.425 0.427	0.781 0.793	1.287 1.263	- 1.837	- 2.516	- 3.299	- 4.187	- 5.179	- 6.275	a
⁷⁷ Kr A+B: 5/2 ⁺	0.0 -0.043	0.150 0.142	0.279 0.379	0.785 0.666	1.003 1.004	1.660 1.390	1.918 1.824	2.708 2.304	2.990 2.830	3.770 3.399	37/2
⁷⁷ Kr C+D: 3/2 ⁻	0.066 0.066	0.245 0.249	0.500 0.497	0.800 0.804	1.178 1.166	1.570 1.577	2.064 2.034	2.521 2.532	3.114 3.070	3.604 3.643	27/2
⁷⁷ Rb A: 5/2 ⁺	0.147 0.121	- 0.265	0.332 0.451	- 0.678	0.834 0.946	- 1.256	1.576 1.607	- 1.999	2.529 2.432	- 2.907	45/2 a
⁷⁷ Rb B: 7/2 ⁺	0.307 0.301	- 0.548	0.804 0.849	- 1.205	1.590 1.616	- 2.081	2.631 2.601	- 3.176	3.895 3.806	- 4.491	35/2 a
⁷⁷ Rb C: 9/2 ⁺	1.154 1.214	- 1.463	1.883 1.756	- 2.091	2.597 2.469	- 2.889	3.411 3.349	- 3.849	4.330 4.388	- 4.965	57/2
⁷⁷ Rb D+F: 3/2 ⁻	0.0 0.0	0.145 0.147	0.368 0.352	0.615 0.613	0.944 0.927	1.280 1.292	1.717 1.706	2.125 2.167	2.681 2.673	3.134 3.222	41/2
⁷⁷ Rb E+G: 19/2 ⁻	3.230 3.203	- 3.628	4.123 4.094	- 4.600	5.104 5.147	- 5.734	6.300 6.361	7.087 7.029	7.635 7.738	8.520 8.487	51/2 a
⁷⁷ Rb H: 11/2 ⁻	2.150 2.099	2.388 2.364	2.668 2.671	2.991 3.018	3.343 3.406	3.776 3.835	4.217 4.305	4.759 4.816	5.318 5.367	5.956 5.960	37/2 a
⁷⁷ Sr A+B: 5/2 ⁺	0.0 -0.007	0.186 0.185	0.418 0.430	0.726 0.725	1.052 1.069	1.481 1.460	1.884 1.896	2.432 2.375	2.894 2.896	3.562 3.457	33/2
⁷⁷ Sr C+D: 3/2 ⁻	0.613 0.615	0.781 0.780	1.011 1.005	1.290 1.288	1.627 1.623	1.999 2.007	2.437 2.437	2.891 2.909	3.424 3.421	3.950 3.970	29/2

A=79

Singh B. //NDS, 1993, v.70, p.437



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁷⁹ Se	0.0	0.100	0.897	1.072	2.114	2.258	-	-	-	-	
B: 7/2 ⁺	0.0	0.384	0.808	1.268	1.762	2.288	2.844	3.426	4.035	4.668	
⁷⁹ Se	0.096	-	0.572	-	1.340	-	2.303	-	-	-	
C: 1/2 ⁻	0.096	0.286	0.572	0.923	1.339	1.795	2.304	2.840	3.422	4.024	
⁷⁹ Se	0.365	-	1.257	-	2.182	-	-	-	-	-	
D: 5/2 ⁻	0.365	0.811	1.253	1.711	2.190	2.688	3.206	3.743	4.298	4.870	
⁷⁹ Br	0.207	-	0.797	-	1.732	-	2.866	-	4.117	-	
A: 9/2 ⁺	0.205	0.500	0.849	1.252	1.708	2.218	2.781	3.399	4.070	4.794	a
⁷⁹ Br	0.0	0.217	0.761	1.068	1.713	1.948	-	2.725	-	3.560	
B: 3/2 ⁻	-0.019	0.257	0.593	0.977	1.403	1.866	2.363	2.889	3.444	4.024	
⁷⁹ Br	2.479	2.580	2.774	3.088	3.536	-	-	-	-	-	
C: 13/2 ⁻	2.406	2.617	2.857	3.125	3.420	3.745	4.097	4.477	4.886	5.323	a
⁷⁹ Kr	0.0	0.183	0.402	0.695	1.064	1.451	1.916	2.416	2.930	3.383	
A: 1/2[301]	0.003	0.178	0.402	0.728	1.056	1.483	1.886	2.390	2.852	3.419	
⁷⁹ Kr	0.147	0.450	0.814	1.172	1.662	2.057	2.643	3.062	3.655	4.088	25/2
B: 5/2[303]	0.147	0.455	0.807	1.197	1.622	2.078	2.563	3.074	3.610	4.169	
⁷⁹ Kr	0.149	-	0.976	-	2.002	-	3.146	-	-	-	
C: 9/2 ⁺	0.149	0.539	0.979	1.464	1.990	2.555	3.156	3.792	4.459	5.156	b
⁷⁹ Kr	0.130	-	0.897	-	1.884	-	2.979	-	-	-	
G: 7/2 ⁺	0.130	0.488	0.900	1.361	1.866	2.412	2.994	3.612	4.262	4.942	b
⁷⁹ Kr	2.857	3.215	3.586	4.133	-	-	-	-	-	-	
E: 17/2 ⁻	2.843	3.220	3.635	4.091	4.586	5.120	5.695	6.308	6.962	7.655	a
⁷⁹ Kr	3.619	3.846	4.299	4.899	-	-	-	-	-	-	
H: 21/2 ⁺	3.549	3.934	4.353	4.805	5.291	5.810	6.362	6.948	7.567	8.220	a
⁷⁹ Kr	1.039	1.662	2.136	-	3.289	-	-	-	-	-	
J: 11/2 ⁺	1.042	1.634	2.181	2.721	3.263	3.813	4.374	4.945	5.527	6.121	
⁷⁹ Kr	0.384	0.659	0.984	1.363	-	-	-	-	-	-	
L: 3/2 ⁻	0.378	0.683	0.993	1.321	1.667	2.031	2.411	2.807	3.217	3.640	

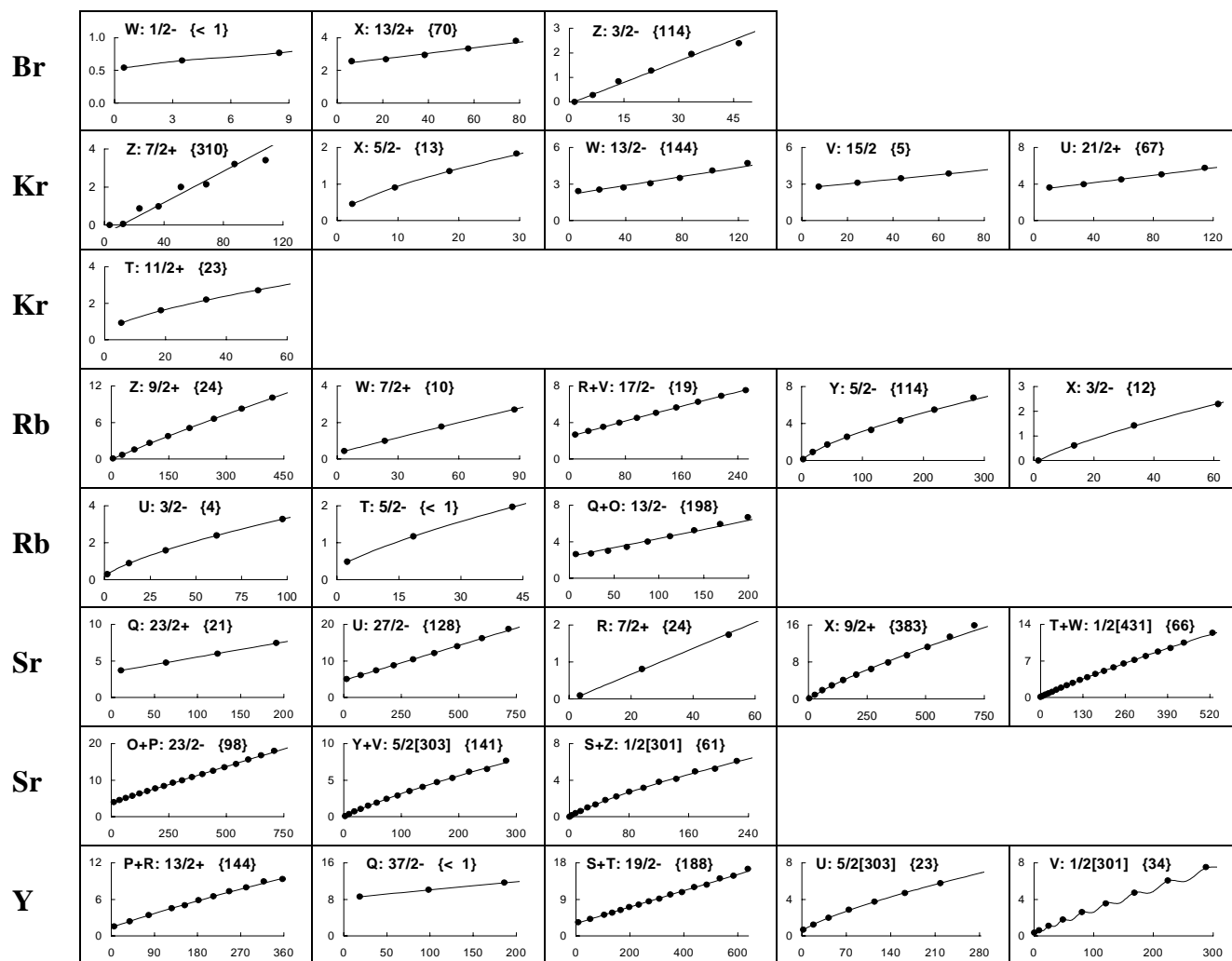
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=79 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁷⁹ Rb	0.097	-	0.597	-	1.353	-	2.316	-	3.458	-	41/2
A: 9/2 ⁺	0.095	0.348	0.646	0.990	1.380	1.816	2.298	2.826	3.400	4.019	a, c
⁷⁹ Rb	0.147	-	0.644	-	1.454	-	2.510	-	3.700	-	35/2
B: 7/2 ⁺	0.145	0.390	0.689	1.040	1.442	1.896	2.400	2.953	3.554	4.203	c
⁷⁹ Rb	0.039	0.174	0.454	0.680	1.050	1.349	1.822	2.165	2.768	3.111	37/2
C+D: 3/2 ⁻	0.039	0.195	0.409	0.677	0.996	1.362	1.771	2.222	2.711	3.235	
⁷⁹ Rb	0.144	0.363	0.670	1.025	1.411	1.817	2.297	2.712	-	3.581	
E+F: 3/2 ⁻	0.143	0.378	0.669	1.006	1.384	1.796	2.240	2.713	3.212	3.735	
⁷⁹ Rb	3.309	3.687	4.152	4.686	-	-	-	-	-	-	
G: 19/2 ⁻	3.293	3.710	4.167	4.664	5.200	5.776	6.392	7.048	7.743	8.478	a
⁷⁹ Sr	0.0	0.159	0.381	0.649	0.983	1.339	1.774	2.203	2.729	3.216	29/2
A+B: 3/2[301]	0.0	0.160	0.378	0.651	0.976	1.348	1.764	2.222	2.717	3.249	
⁷⁹ Sr	0.177	0.330	0.499	0.914	1.179	1.730	2.065	2.729	3.129	3.874	25/2
C+D: 5/2[402]	0.165	0.349	0.585	0.871	1.207	1.590	2.021	2.497	3.017	3.580	

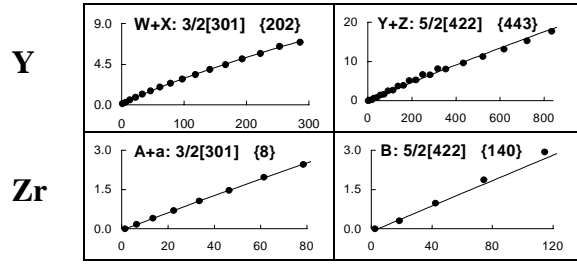
A=81

Baglin C.M. //NDS, 1996, v.79, p.447



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=81 (continuation)



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{81}Br W: $1/2^+$	0.538 0.538	0.650 0.650	0.767 0.767	- 1.015	- 1.213	- 1.577	- 1.843	- 2.303	- 2.627	- 3.171	
^{81}Br X: $13/2^-$	2.549 2.471	2.669 2.728	2.942 3.018	3.334 3.343	3.799 3.702	- 4.096	- 4.523	- 4.985	- 5.481	- 6.011	a
^{81}Br Z: $3/2^-$	0.0 0.016	0.276 0.306	0.837 0.712	1.266 1.233	1.946 1.870	(2.388) 2.623	- 3.490	- 4.472	- 5.569	- 6.780	
^{81}Kr Z: $7/2^+$	0.0 -0.319	0.050 0.051	0.874 0.503	0.976 1.037	1.994 1.653	2.136 2.352	3.196 3.133	3.393 3.996	- 4.941	- 5.969	a
^{81}Kr X: $5/2^-$	0.457 0.455	0.902 0.914	1.349 1.355	1.829 1.806	- 2.271	- 2.754	- 3.253	- 3.768	- 4.298	- 4.844	
^{81}Kr W: $13/2^-$	2.420 2.267	2.534 2.542	2.700 2.854	3.062 3.202	3.491 3.586	4.100 4.008	4.714 4.466	- 4.960	- 5.492	- 6.060	a
^{81}Kr V: $15/2$	2.784 2.780	3.092 3.099	3.456 3.456	3.855 3.851	- 4.283	- 4.753	- 5.261	- 5.806	- 6.388	- 7.009	a
^{81}Kr U: $21/2^+$	3.624 3.557	3.957 4.022	4.472 4.527	5.048 5.073	5.760 5.659	- 6.285	- 6.952	- 7.660	- 8.407	- 9.196	a
^{81}Kr T: $11/2^+$	0.934 0.938	1.607 1.592	2.193 2.171	2.695 2.731	- 3.288	- 3.848	- 4.415	- 4.989	- 5.573	- 6.166	
^{81}Rb Z: $9/2^+$	0.086 0.086	- 0.380	0.709 0.724	- 1.117	1.584 1.557	- 2.042	2.608 2.572	- 3.145	3.765 3.759	- 4.414	41/2
^{81}Rb W: $7/2^+$	0.434 0.433	- 0.686	0.987 0.993	- 1.351	1.775 1.760	- 2.217	2.710 2.720	- 3.269	- 3.861	- 4.495	
^{81}Rb R+V: $17/2^-$	2.656 2.650	3.055 3.056	3.496 3.500	3.956 3.980	4.496 4.496	5.062 5.045	5.644 5.628	6.259 6.242	6.904 6.887	7.521 7.563	
^{81}Rb Y: $5/2^-$	0.154 0.154	- 0.531	0.913 0.904	- 1.290	1.739 1.694	- 2.115	2.575 2.553	- 3.006	3.295 3.475	- 3.958	33/2
^{81}Rb X: $3/2^-$	0.0 -0.001	- 0.283	0.612 0.615	- 0.989	1.416 1.399	- 1.841	2.294 2.312	- 2.809	- 3.331	- 3.875	
^{81}Rb U: $3/2^-$	0.301 0.301	- 0.584	0.896 0.895	- 1.234	1.596 1.599	- 1.988	2.395 2.399	- 2.830	3.287 3.279	- 3.746	
^{81}Rb T: $5/2^-$	0.487 0.487	- 0.818	1.174 1.174	- 1.558	1.967 1.967	- 2.401	- 2.857	- 3.334	- 3.832	- 4.347	
^{81}Rb Q+O: $13/2^-$	2.426 2.223	2.636 2.520	2.697 2.856	2.998 3.232	3.428 3.647	3.993 4.102	4.591 4.597	5.243 5.131	5.932 5.705	6.683 6.318	a
^{81}Sr Q: $23/2^+$	3.714 3.702	- 4.218	4.753 4.776	- 5.375	6.002 6.015	- 6.696	7.449 7.419	- 8.183	- 8.988	- 9.835	a
^{81}Sr U: $27/2^-$	4.998 4.977	- 5.528	6.134 6.118	- 6.745	7.402 7.411	- 8.115	8.822 8.856	- 9.636	10.400 10.454	- 11.310	59/2 a
^{81}Sr R: $7/2^+$	0.089 0.089	- 0.406	0.811 0.792	- 1.249	1.740 1.776	- 2.374	- 3.042	- 3.780	- 4.589	- 5.467	a, b
^{81}Sr X: $9/2^+$	0.132 0.132	- 0.497	0.905 0.904	- 1.349	1.865 1.831	- 2.345	2.963 2.891	- 3.465	4.107 4.067	- 4.696	53/2 b

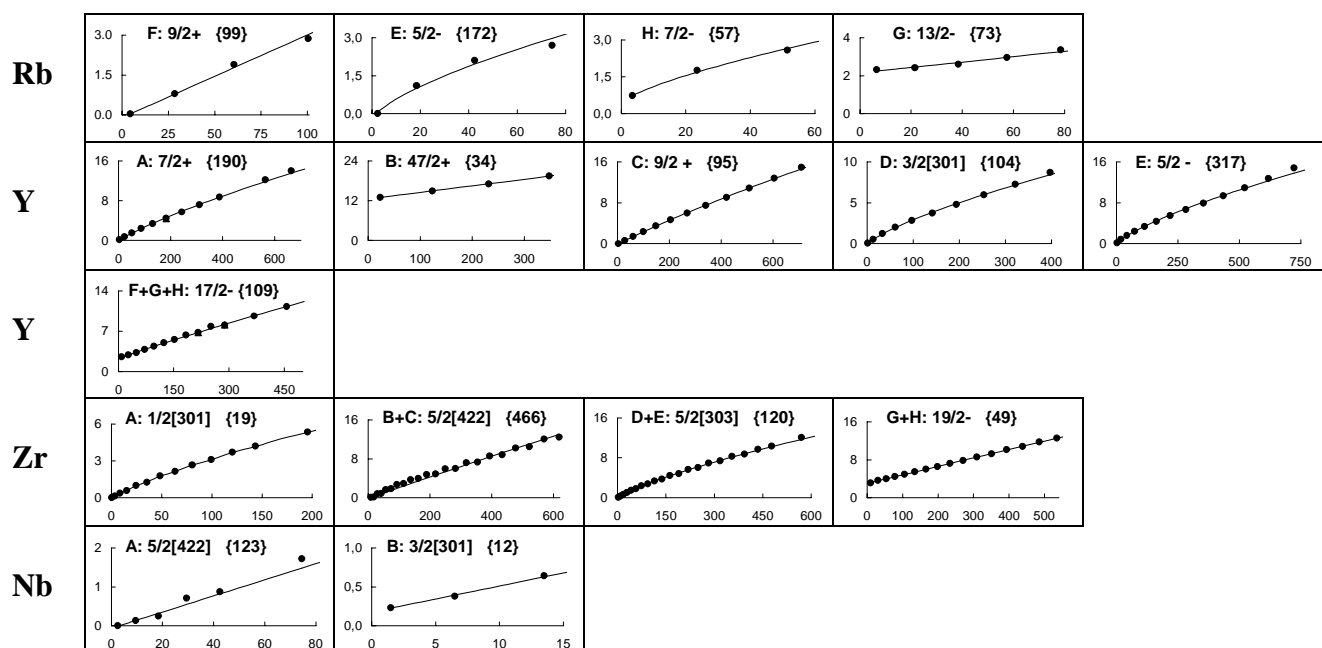
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=81 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
⁸¹ Sr	0.120	0.221	0.336	0.558	0.797	1.109	1.471	1.862	2.324	2.791	45/2
T+W: 1/2[431]	0.120	0.215	0.345	0.562	0.791	1.121	1.442	1.876	2.280	2.810	
⁸¹ Sr	3.978	4.551	5.103	5.705	6.358	6.990	7.761	8.404	9.250	9.930	57/2
O+P: 23/2 ⁻	4.023	4.537	5.090	5.681	6.310	6.976	7.679	8.419	9.194	10.005	
⁸¹ Sr	0.079	0.366	0.707	1.056	1.506	1.910	2.448	2.904	3.496	4.059	33/2
Y+V: 5/2[303]	0.080	0.358	0.691	1.071	1.494	1.954	2.450	2.977	3.534	4.119	
⁸¹ Sr	0.0	0.155	0.379	0.633	1.000	1.333	1.804	2.213	2.740	3.145	29/2
S+Z: 1/2[301]	0.011	0.152	0.382	0.652	0.995	1.352	1.777	2.200	2.690	3.168	
⁸¹ Y	1.550	-	2.416	-	3.413	-	4.552	5.032	5.836	6.509	39/2
P+R: 13/2 ⁺	1.553	1.958	2.403	2.887	3.407	3.961	4.548	5.165	5.812	6.487	
⁸¹ Y	8.584	-	10.060	-	11.620	-	-	-	-	-	
Q: 37/2 ⁻	8.584	9.311	10.060	10.830	11.620	12.430	13.259	14.108	14.976	15.862	
⁸¹ Y	3.361	-	4.183	-	5.213	5.744	6.386	7.090	7.711	8.520	53/2
S+T: 19/2 ⁻	3.307	3.727	4.186	4.686	5.225	5.805	6.424	7.083	7.783	8.522	a
⁸¹ Y	0.664	-	1.250	-	1.993	-	2.866	-	3.739	-	33/2
U: 5/2[303]	0.662	0.947	1.265	1.613	1.990	2.392	2.817	3.265	3.732	4.219	
⁸¹ Y	0.344	-	0.608	-	1.107	-	1.783	-	2.595	-	33/2
V: 1/2[301]	0.343	0.340	0.615	0.609	1.093	1.084	1.762	1.751	2.606	2.592	
⁸¹ Y	0.113	0.289	0.537	0.826	1.167	1.530	1.952	2.374	2.861	3.342	33/2
W+X: 3/2[301]	0.114	0.290	0.525	0.813	1.149	1.528	1.946	2.399	2.886	3.403	
⁸¹ Y	0.0	0.150	0.269	0.683	0.839	1.483	1.653	2.513	2.687	3.746	57/2
Y+Z: 5/2[422]	-0.036	0.136	0.357	0.625	0.941	1.304	1.712	2.166	2.664	3.206	
⁸¹ Zr	0.0	0.167	0.405	0.698	1.066	1.467	1.960	2.456	-	-	
A+a: 3/2[301]	-0.002	0.168	0.403	0.701	1.060	1.475	1.945	2.467	3.039	3.657	
⁸¹ Zr	0.0	-	0.303	-	0.979	-	1.865	-	2.931	-	x, 25/2
B: 5/2[422]	-0.037	0.132	0.350	0.616	0.931	1.294	1.705	2.165	2.674	3.230	a

A=83

Wu S.-C. //NDS, 2001, v.92, p.893



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=83
Wu S.-C. //NDS, 2001, v.92, p.893

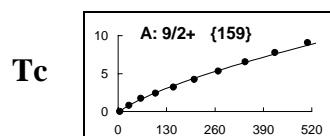
Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁸³ Rb F: 9/2 ⁺	0.042	-	0.794	-	1.890	-	2.860	-	-	-	
	0.042	0.384	0.788	1.254	1.782	2.373	3.025	3.740	4.517	5.356	a
⁸³ Rb E: 5/2 ⁻	0.0	-	1.103	-	2.102	-	2.700	-	-	-	
	0.073	0.545	1.002	1.472	1.958	2.463	2.986	3.526	4.083	4.656	
⁸³ Rb H: 7/2 ⁻	0.737	-	1.754	-	2.577	-	-	-	-	-	
	0.744	1.221	1.685	2.159	2.648	3.153	3.675	4.214	4.769	5.339	
⁸³ Rb G: 13/2 ⁻	2.314	2.414	2.596	2.958	3.363	-	-	-	-	-	
	2.240	2.454	2.697	2.969	3.269	3.597	3.955	4.340	4.755	5.198	a
⁸³ Y A: 7/2 ⁺	0.145	-	0.737	-	1.532	-	2.430	-	3.397	-	
	0.146	0.411	0.725	1.084	1.484	1.922	2.396	2.904	3.443	4.011	c
⁸³ Y B: 47/2 ⁺	13.040	-	14.950	-	17.110	-	19.470	-	-	-	
	13.013	13.983	14.994	16.043	17.133	18.262	19.431	20.639	21.887	23.174	
⁸³ Y C: 9/2 ⁺	0.0	-	0.595	-	1.407	-	2.371	-	3.451	-	
	-0.002	0.277	0.602	0.972	1.385	1.840	2.335	2.868	3.437	4.043	
⁸³ Y D: 3/2[301]	0.062	-	0.537	-	1.224	-	2.011	-	2.823	-	
	0.062	0.277	0.542	0.850	1.194	1.571	1.975	2.406	2.860	3.336	
⁸³ Y E: 5/2 ⁻	0.167	-	0.814	-	1.566	-	2.406	-	3.315	-	
	0.168	0.455	0.783	1.147	1.544	1.971	2.424	2.903	3.405	3.928	
⁸³ Y F+G+H: 17/2 ⁻	2.560	2.888	3.308	3.830	4.386	4.992	5.562	6.334	6.782	7.819	45/2
	2.504	2.923	3.379	3.870	4.396	4.955	5.546	6.168	6.819	7.500	c
⁸³ Zr A: 1/2[301]	0.0	0.129	0.373	0.583	0.983	1.262	1.771	2.126	2.675	3.096	27/2
	0.002	0.126	0.368	0.609	0.974	1.296	1.751	2.135	2.661	3.096	
⁸³ Zr B+C: 5/2[422]	-	0.077	0.139	0.769	0.880	1.663	1.817	2.708	2.913	3.726	61/2
	-0.111	0.048	0.252	0.500	0.793	1.130	1.510	1.934	2.399	2.907	
⁸³ Zr D+E: 5/2[303]	0.053	0.338	0.680	1.013	1.476	1.830	2.398	2.743	3.374	3.731	47/2
	0.053	0.337	0.666	1.033	1.435	1.868	2.329	2.817	3.329	3.864	
⁸³ Zr G+H: 19/2 ⁻	3.138	3.625	3.982	4.470	4.944	5.460	6.022	6.570	7.235	7.817	49/2
	3.186	3.568	3.986	4.440	4.929	5.453	6.011	6.604	7.231	7.892	
⁸³ Nb A: 5/2[422]	0.0	0.130	0.252	0.712	0.875	-	1.723	-	-	-	
	-0.012	0.134	0.321	0.550	0.821	1.133	1.486	1.882	2.319	2.797	a
⁸³ Nb B: 3/2[301]	0.230	0.382	0.644	-	-	-	-	-	-	-	
	0.227	0.394	0.628	0.929	1.297	1.732	2.233	2.802	3.437	4.139	a

A=85
Sievers H. //NDS, 1991, v.62, p.271

Rotational bands are not present.

A=87
Sievers H. //NDS, 1991, v.62, p.327

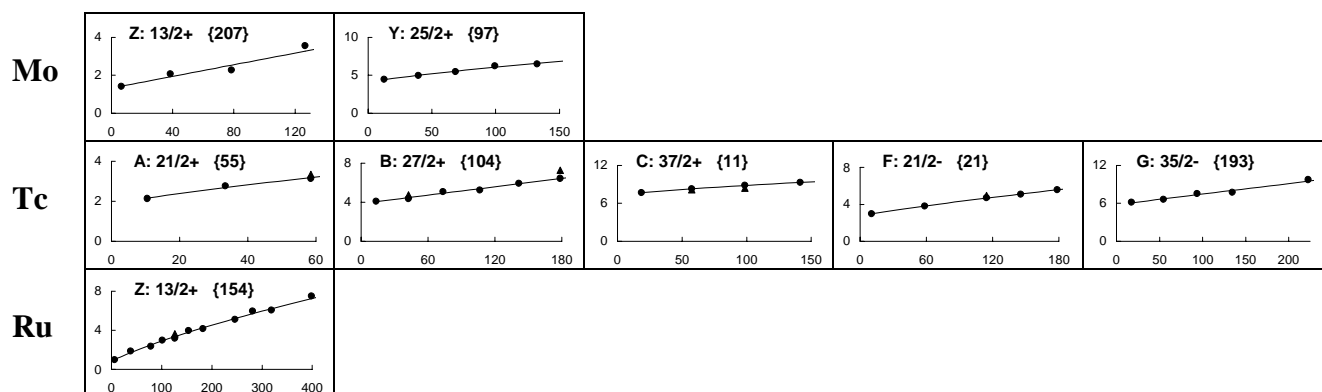
Rotational bands are not present.

A=89
Singh B. //NDS, 1998, v.85, p.1


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁸⁹ Tc A: 9/2 ⁺	0.0	-	0.796	-	1.732	-	2.427	-	3.218	-	45/2
	0.006	0.403	0.797	1.199	1.613	2.041	2.483	2.939	3.408	3.889	

A=91

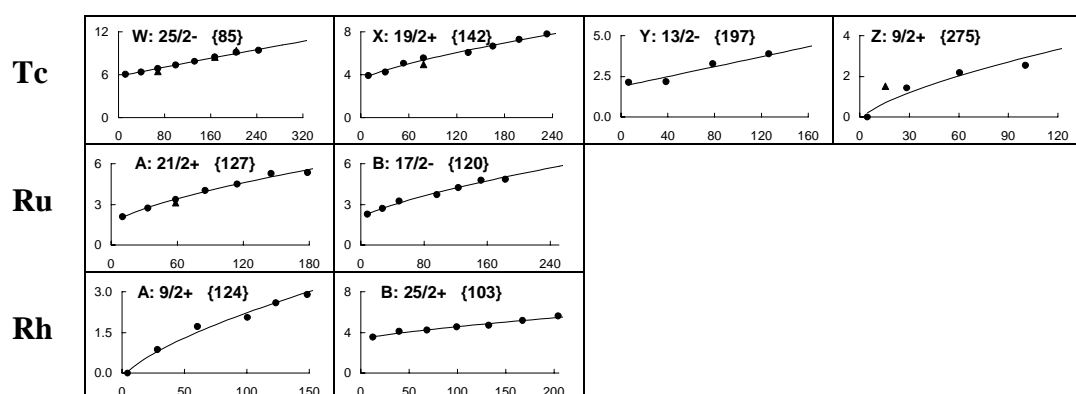
Baglin C.M. //NDS, 1999, v.86, p.1



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁹¹ Mo	1.414	-	2.068	-	2.267	-	3.546	-	-	-	
Z: 13/2 ⁺	1.424	1.654	1.915	2.206	2.528	2.881	3.265	3.679	4.124	4.600	a
⁹¹ Mo	4.445	4.953	5.488	6.233	6.469	-	-	-	-	-	
Y: 25/2 ⁺	4.430	4.994	5.529	6.051	6.569	7.087	7.608	8.132	8.661	9.195	
⁹¹ Tc	2.137	2.768	3.136	-	-	-	-	-	-	-	
A: 21/2 ⁺	2.162	2.689	3.185	3.669	4.151	4.633	5.119	5.610	6.106	6.608	c
⁹¹ Tc	4.119	4.355	5.091	5.268	5.934	6.452	-	-	-	-	
B: 27/2 ⁺	4.066	4.482	4.926	5.399	5.901	6.431	6.990	7.578	8.195	8.840	a, c
⁹¹ Tc	7.668	8.277	8.836	9.300	-	-	-	-	-	-	
C: 37/2 ⁺	7.666	8.288	8.818	9.308	9.776	10.230	10.674	11.113	11.547	11.979	c
⁹¹ Tc	2.981	-	3.804	-	4.703	5.078	5.567	-	-	-	
F: 21/2 ⁻	2.980	3.396	3.814	4.238	4.669	5.110	5.559	6.019	6.487	6.965	c
⁹¹ Tc	6.159	6.616	7.505	7.716	-	9.717	-	-	-	-	
G: 35/2 ⁻	6.081	6.696	7.344	8.025	8.740	9.488	10.269	11.084	11.932	12.813	a
⁹¹ Ru	0.974	-	1.872	-	2.369	2.985	3.193	3.970	4.152	-	41/2
Z: 13/2 ⁺	0.989	1.349	1.721	2.107	2.509	2.925	3.356	3.801	4.260	4.732	c

A=93

Baglin C.M. //NDS, 1997, v.80, p.1



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁹³ Tc	6.053	6.373	6.857	7.374	7.880	8.498	9.140	9.421	-	-	
W: 25/2 ⁻	5.998	6.434	6.896	7.383	7.894	8.429	8.987	9.567	10.169	10.793	c
⁹³ Tc	3.928	4.257	5.076	5.564	-	6.088	6.671	7.282	7.812	-	
X: 19/2 ⁺	3.895	4.426	4.910	5.378	5.841	6.303	6.766	7.234	7.706	8.183	c
⁹³ Tc	2.145	-	2.185	-	3.281	-	3.888	-	-	-	
Y: 13/2 ⁻	1.978	2.207	2.466	2.756	3.076	3.426	3.807	4.219	4.661	5.134	a

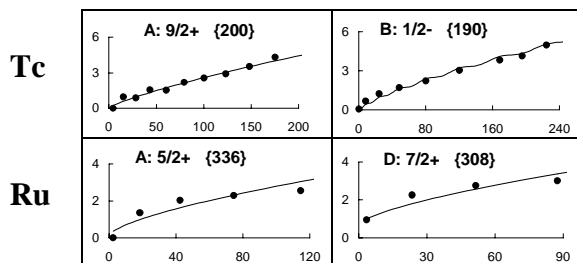
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=93 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁹³ Tc	0.0	-	1.434	-	2.185	-	2.535	-	-	-	
Z: 9/2 ⁺	0.217	0.711	1.157	1.593	2.032	2.477	2.930	3.391	3.862	4.342	c
⁹³ Ru	2.083	2.734	3.376	4.022	4.500	5.272	5.343	-	-	-	
A: 21/2 ⁺	2.069	2.787	3.392	3.955	4.499	5.032	5.560	6.085	6.611	7.139	c
⁹³ Ru	2.281	2.713	3.241	-	3.723	4.237	4.787	4.850	-	5.971	
B: 17/2 ⁻	2.295	2.720	3.112	3.494	3.874	4.255	4.639	5.028	5.421	5.821	
⁹³ Rh	0.0	-	0.866	-	1.718	-	2.052	2.594	2.890	-	
A: 9/2 ⁺	0.055	0.449	0.806	1.157	1.510	1.868	2.233	2.606	2.986	3.373	
⁹³ Rh	3.542	4.088	4.250	4.548	4.706	5.157	5.621	-	-	-	
B: 25/2 ⁺	3.591	3.940	4.260	4.569	4.872	5.173	5.474	5.775	6.078	6.384	

A=95

Burrows T.W. //NDS, 1993, v.68, p.635



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁹⁵ Tc	0.0	0.957	0.882	1.549	1.515	2.184	2.547	2.907	3.516	4.293	
A: 9/2 ⁺	0.259	0.601	0.961	1.340	1.740	2.158	2.595	3.048	3.519	4.005	
⁹⁵ Tc	0.039	-	0.668	-	1.214	-	1.702	-	2.213	-	29/2
B: 1/2 ⁻	0.041	0.117	0.430	0.554	0.982	1.137	1.646	1.824	2.398	2.595	
⁹⁵ Ru	0.0	-	1.352	-	2.030	-	2.285	-	2.540	-	25/2
A: 5/2 ⁺	0.360	0.681	0.988	1.303	1.628	1.965	2.313	2.673	3.044	3.425	
⁹⁵ Ru	0.942	-	2.247	-	2.744	-	2.991	-	-	-	
D: 7/2 ⁺	0.999	1.414	1.796	2.178	2.565	2.962	3.368	3.785	4.212	4.649	

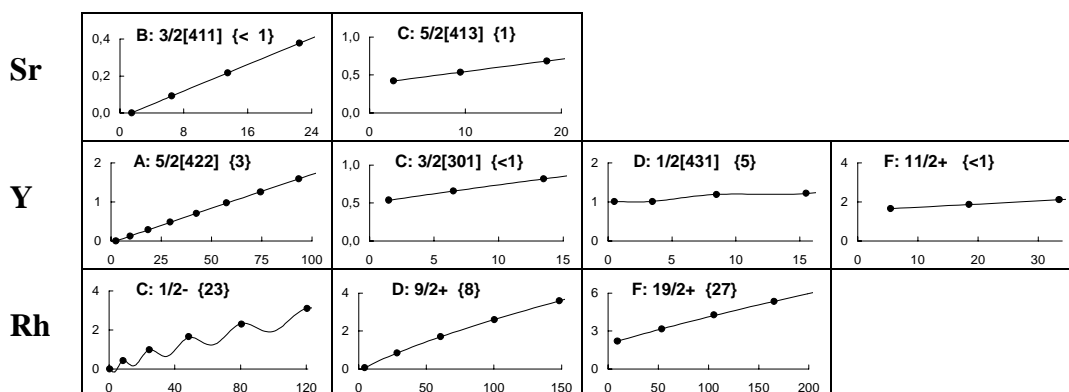
A=97

Artna-Cohen A. //NDS, 1993, v.70, p.85

Rotational bands are not presented.

A=99

Peker L.K. //NDS, 1994, v.73, p.1



ROTATIONAL BANDS IN ODD-MASS NUCLEI

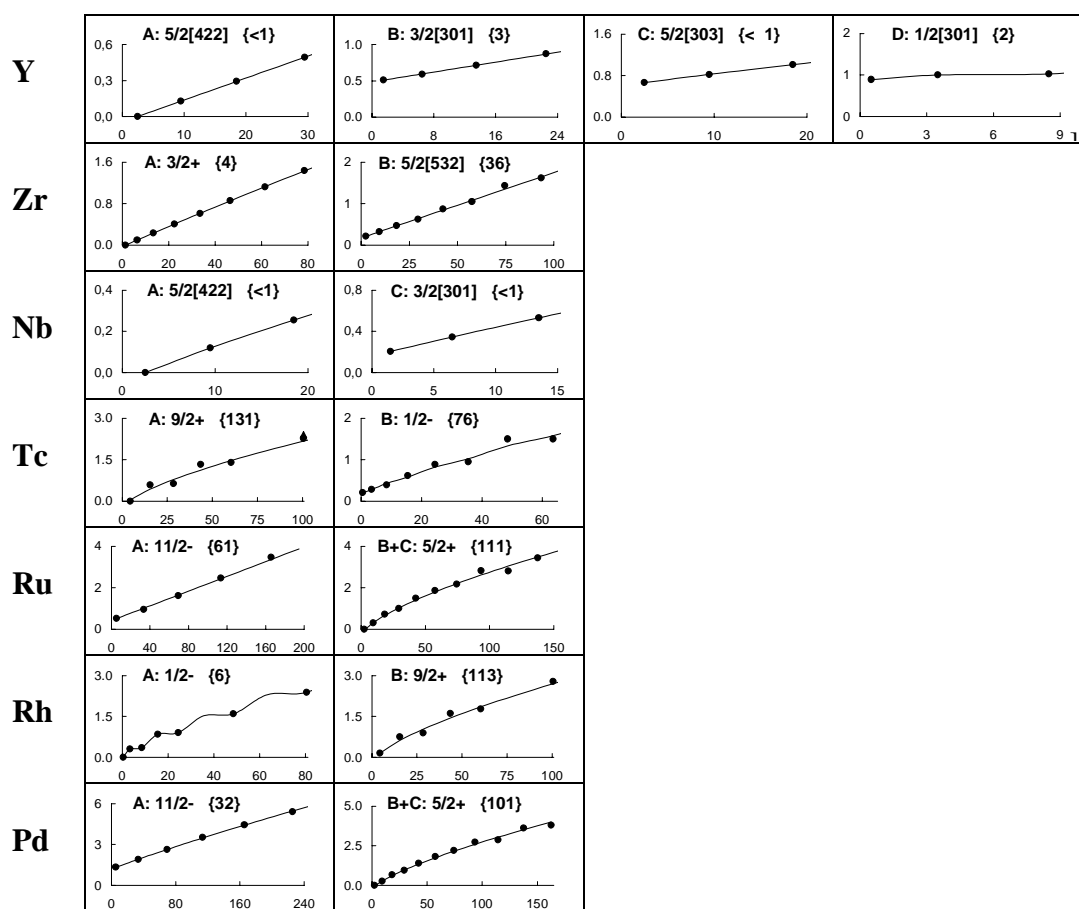
A=99

Peker L.K. //NDS, 1994, v.73, p.1

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
⁹⁹ Sr B: 3/2[411]	0.0 0.0	0.091 0.091	0.216 0.217	0.377 0.377	- 0.571	- 0.797	- 1.054	- 1.341	- 1.657	- 2.001	
⁹⁹ Sr C: 5/2[413]	0.422 0.422	0.534 0.536	0.684 0.683	- 0.863	- 1.076	- 1.321	- 1.599	- 1.909	- 2.252	- 2.628	a
⁹⁹ Y A: 5/2[422]	0.0 0.0	0.125 0.125	0.284 0.285	0.482 0.480	0.706 0.708	0.976 0.970	1.259 1.265	1.595 1.593	- 1.951	- 2.340	
⁹⁹ Y C: 3/2[301]	0.536 0.536	0.657 0.657	0.818 0.818	- 1.014	- 1.241	- 1.496	- 1.776	- 2.080	- 2.405	- 2.749	
⁹⁹ Y D: 1/2[431]	1.012 1.006	1.009 1.015	1.192 1.195	1.221 1.217	- 1.542	- 1.576	- 2.045	- 2.091	- 2.704	- 2.763	a
⁹⁹ Y F: 11/2 ⁺	1.655 1.655	1.869 1.869	2.114 2.114	- 2.389	- 2.694	- 3.027	- 3.388	- 3.776	- 4.190	- 4.630	
⁹⁹ Rh C: 1/2 ⁻	0.0 -0.001	- -0.146	0.427 0.429	- 0.173	0.979 0.978	- 0.653	1.659 1.620	- 1.242	2.299 2.337	- 1.917	21/2
⁹⁹ Rh D: 9/2 ⁺	0.064 0.064	- 0.449	0.842 0.845	- 1.258	1.702 1.689	- 2.138	2.593 2.604	- 3.087	3.586 3.587	- 4.103	
⁹⁹ Rh F: 19/2 ⁺	2.195 2.192	- 2.672	3.149 3.170	- 3.686	4.263 4.221	- 4.773	5.319 5.344	- 5.932	- 6.536	- 7.157	

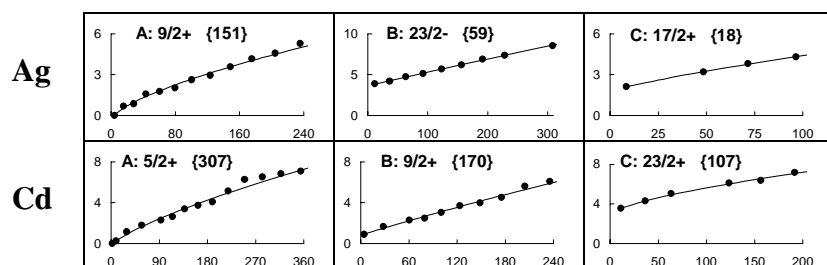
A=101

Blachot J. //NDS, 1998, v.83, p.1



A=101 (continuation)

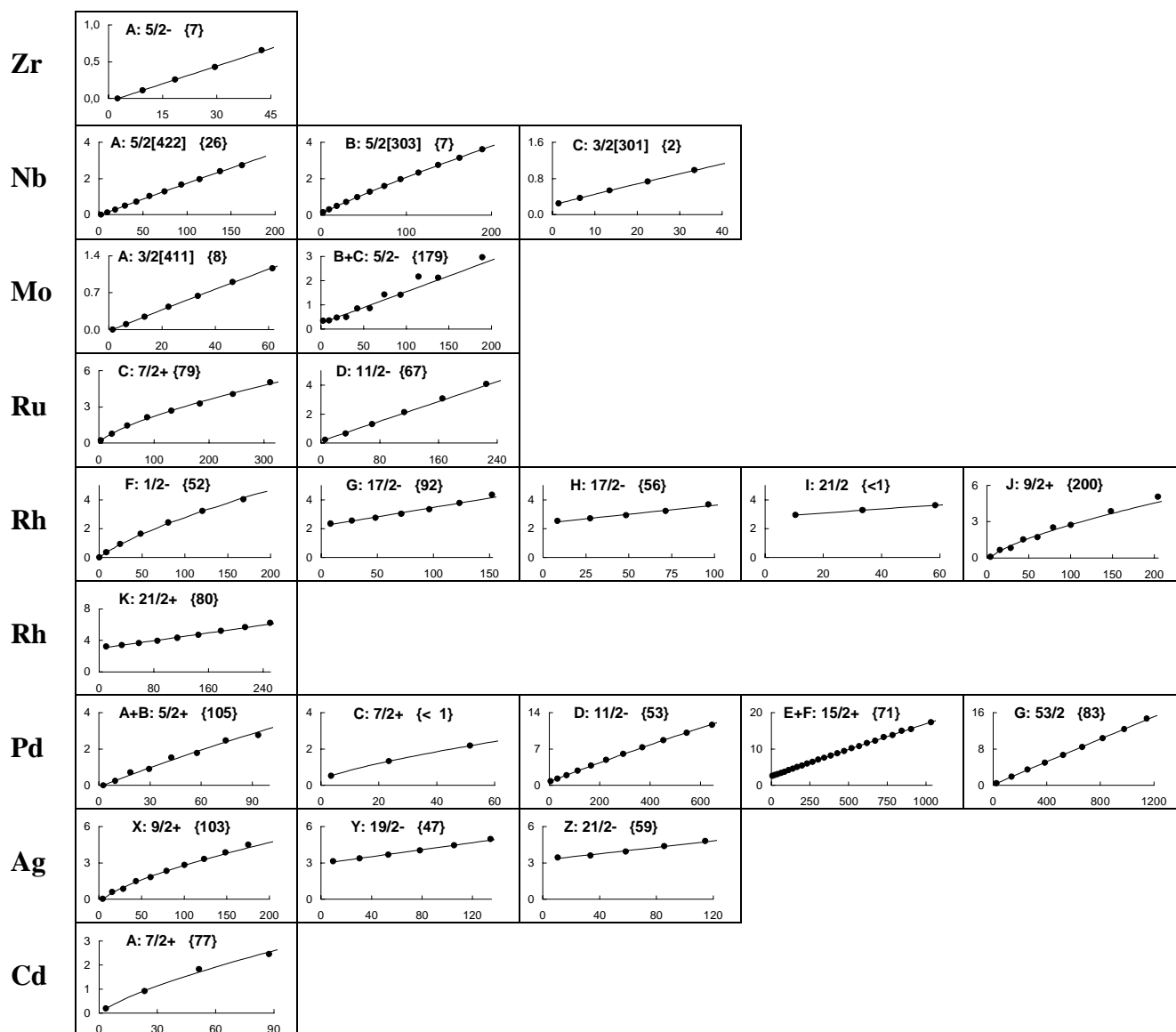
Blachot J. //NDS, 1998, v.83, p.1



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{101}Y	0.0	0.128	0.292	0.494	-	-	-	-	-	-	
A: 5/2[422]	0.0	0.128	0.293	0.494	0.731	1.005	1.315	1.662	2.045	2.463	
^{101}Y	0.511	0.590	0.714	0.873	-	-	-	-	-	-	
B: 3/2[301]	0.508	0.595	0.715	0.870	1.060	1.284	1.543	1.836	2.163	2.526	a
^{101}Y	0.667	0.822	1.013	-	-	-	-	-	-	-	
C: 5/2[303]	0.667	0.823	1.013	1.234	1.483	1.758	2.055	2.374	2.712	3.069	
^{101}Y	0.891	0.997	1.027	-	-	-	-	-	-	-	
D: 1/2[301]	0.886	0.997	1.027	1.221	1.264	1.513	1.564	1.854	1.912	2.236	
^{101}Zr	0.0	0.098	0.232	0.408	0.610	0.858	1.121	1.437	-	-	
A: 3/2 ⁺	0.0	0.098	0.233	0.406	0.613	0.854	1.128	1.432	1.766	2.129	
^{101}Zr	0.217	0.321	0.468	0.620	0.870	1.048	1.432	1.617	-	-	
B: 5/2[532]	0.214	0.325	0.466	0.639	0.844	1.080	1.347	1.646	1.977	2.339	a
^{101}Nb	0.0	0.119	0.255	-	-	-	-	-	-	-	
A: 5/2[422]	0.0	0.119	0.255	0.406	0.569	0.744	0.931	1.127	1.332	1.547	
^{101}Nb	0.205	0.346	0.532	-	-	-	-	-	-	-	
C: 3/2[301]	0.205	0.346	0.532	0.757	1.017	1.308	1.626	1.970	2.337	2.726	
^{101}Tc	0.0	0.590	0.642	1.332	1.400	-	2.272	-	-	-	
A: 9/2 ⁺	0.053	0.437	0.785	1.126	1.469	1.817	2.172	2.534	2.903	3.279	c
^{101}Tc	0.207	0.289	0.395	0.619	0.885	0.947	1.499	1.500	-	-	
B: 1/2 ⁻	0.207	0.279	0.433	0.580	0.823	1.024	1.334	1.579	1.942	2.222	
^{101}Ru	0.528	-	0.958	-	1.622	-	2.473	-	3.476	-	
A: 11/2 ⁻	0.513	0.745	1.012	1.314	1.652	2.026	2.435	2.880	3.361	3.877	a
^{101}Ru	0.0	0.307	0.720	1.001	1.501	1.862	2.174	2.824	2.802	3.441	
B+C: 5/2 ⁺	-0.039	0.323	0.674	1.035	1.410	1.798	2.201	2.617	3.047	3.489	
^{101}Rh	0.0	0.305	0.355	0.851	0.899	-	1.605	-	2.387	-	
A: 1/2 ⁻	0.008	0.306	0.354	0.845	0.909	1.523	1.598	2.305	2.390	3.173	
^{101}Rh	0.157	0.748	0.893	1.609	1.779	-	2.781	-	-	-	
B: 9/2 ⁺	0.158	0.619	1.036	1.445	1.857	2.275	2.701	3.135	3.578	4.030	
^{101}Pd	1.337	-	1.893	-	2.641	-	3.532	-	4.443	-	31/2
A: 11/2 ⁻	1.329	1.607	1.920	2.265	2.641	3.047	3.480	3.940	4.425	4.934	
^{101}Pd	0.0	0.261	0.667	0.939	1.404	1.817	2.208	2.721	2.865	3.625	25/2
B+C: 5/2 ⁺	-0.045	0.277	0.613	0.970	1.348	1.746	2.163	2.597	3.048	3.515	
^{101}Ag	0.0	0.687	0.861	1.573	1.769	2.016	2.621	2.956	3.578	4.159	31/2
A: 9/2 ⁺	0.074	0.547	0.974	1.393	1.815	2.242	2.677	3.120	3.573	4.034	
^{101}Ag	3.869	4.216	4.749	5.134	5.678	6.197	6.918	7.394	-	8.547	
B: 23/2 ⁻	3.841	4.261	4.710	5.188	5.694	6.227	6.786	7.371	7.981	8.616	
^{101}Ag	2.114	-	3.209	3.801	4.314	-	-	-	-	-	
C: 17/2	2.113	2.673	3.222	3.772	4.330	4.896	5.473	6.062	6.662	7.274	
^{101}Cd	0.0	0.252	-	1.144	-	1.799	-	2.285	2.638	3.399	37/2
A: 5/2 ⁺	-0.006	0.266	0.572	0.908	1.272	1.661	2.074	2.507	2.961	3.434	
^{101}Cd	0.891	-	1.673	-	2.301	2.480	3.062	3.701	3.991	4.504	31/2
B: 9/2 ⁺	0.920	1.189	1.501	1.852	2.242	2.668	3.128	3.621	4.145	4.699	
^{101}Cd	3.561	4.289	5.039	-	6.105	6.363	7.179	-	-	-	
C: 23/2 ⁺	3.580	4.311	4.923	5.490	6.034	6.566	7.092	7.614	8.135	8.656	

A=103

De Frenne D., Jacobs E. //NDS, 2001, v.93, p.447



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{103}Zr	0.0	0.109	0.256	0.428	0.657	-	-	-	-	-	
A: $5/2^-$	-0.001	0.111	0.256	0.432	0.641	0.882	1.156	1.461	1.798	2.168	a
^{103}Nb	0.0	0.126	0.285	0.504	0.721	1.023	1.286	1.661	1.962	2.391	25/2
A: $5/2[422]$	-0.002	0.128	0.293	0.493	0.727	0.994	1.292	1.622	1.982	2.370	
^{103}Nb	0.164	0.315	0.502	0.730	0.988	1.287	1.607	1.969	2.336	2.751	27/2
B: $5/2[303]$	0.164	0.314	0.504	0.730	0.991	1.284	1.607	1.958	2.336	2.740	
^{103}Nb	0.248	0.368	0.534	0.733	0.982	-	-	-	-	-	
C: $3/2[301]$	0.248	0.368	0.532	0.737	0.980	1.258	1.568	1.908	2.277	2.672	
^{103}Mo	0.0	0.103	0.241	0.433	0.638	0.902	1.157	-	-	-	
A: $3/2[411]$	0.0	0.103	0.245	0.425	0.640	0.890	1.171	1.484	1.824	2.192	
^{103}Mo	0.347	0.354	0.479	0.498	0.851	0.862	1.426	1.409	2.164	2.116	27/2
B+C: $5/2^-$	0.277	0.368	0.485	0.628	0.796	0.991	1.212	1.458	1.731	2.030	a, c
^{103}Ru	0.214	-	0.774	-	1.444	-	2.132	-	2.680	-	35/2
C: $7/2^+$	0.213	0.513	0.801	1.094	1.395	1.706	2.027	2.357	2.697	3.046	
^{103}Ru	0.238	-	0.654	-	1.302	-	2.130	-	3.079	-	31/2
D: $11/2^-$	0.232	0.454	0.711	1.001	1.326	1.685	2.079	2.506	2.968	3.464	a

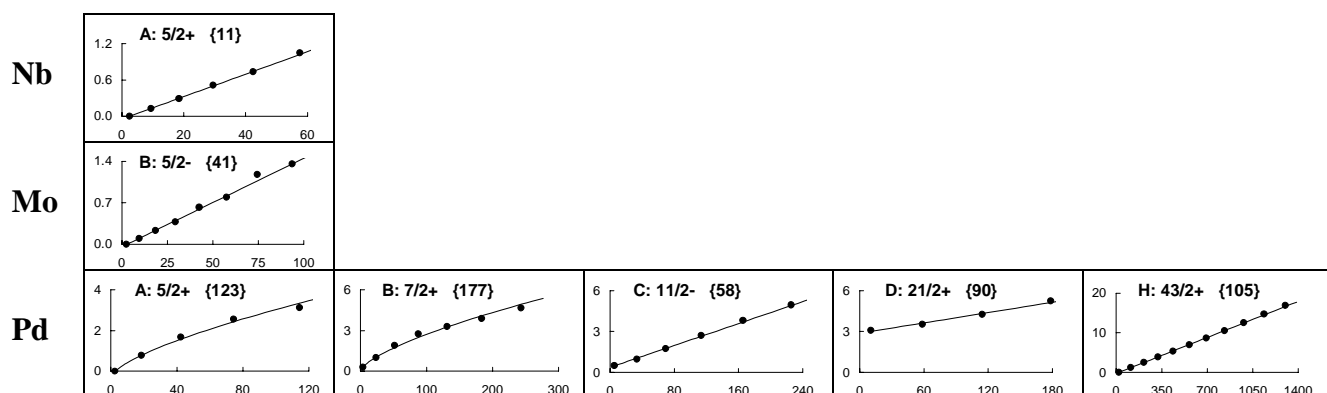
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=103 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{103}Rh F: $1/2^-$	0.0 -0.003	- 0.130	0.357 0.363	- 0.590	0.920 0.915	- 1.204	1.638 1.594	- 1.929	2.419 2.372	- 2.744	25/2
^{103}Rh G: $17/2^-$	2.345 2.284	2.541 2.530	2.754 2.802	3.014 3.099	3.330 3.423	3.772 3.773	4.340 4.148	- 4.550	- 4.977	- 5.430	a
^{103}Rh H: $17/2^-$	2.522 2.479	2.703 2.717	2.918 2.980	3.229 3.268	3.673 3.582	- 3.920	- 4.283	- 4.672	- 5.085	- 5.524	a
^{103}Rh I: $21/2$	2.937 2.937	3.277 3.277	3.617 3.617	- 3.960	- 4.308	- 4.662	- 5.023	- 5.391	- 5.766	- 6.148	
^{103}Rh J: $9/2^+$	0.093 0.093	0.658 0.575	0.822 1.011	1.525 1.439	1.717 1.869	2.525 2.305	2.740 2.748	- 3.201	3.872 3.663	- 4.134	29/2
^{103}Rh K: $21/2^+$	3.219 3.111	3.399 3.394	3.634 3.702	3.943 4.035	4.325 4.393	4.710 4.775	5.201 5.181	5.668 5.613	6.213 6.069	- 6.549	a
^{103}Pd A+B: $5/2^+$	0.0 0.001	0.244 0.260	0.718 0.582	0.904 0.959	1.527 1.388	1.777 1.864	2.468 2.382	2.764 2.942	- 3.538	- 4.170	
^{103}Pd C: $7/2^+$	0.532 0.532	- 0.928	1.329 1.329	- 1.745	2.178 2.179	- 2.631	- 3.100	- 3.587	- 4.090	- 4.609	
^{103}Pd D: $11/2^-$	0.785 0.770	- 1.021	1.262 1.308	- 1.631	1.975 1.988	- 2.379	2.822 2.804	- 3.260	3.792 3.748	- 4.266	51/2
^{103}Pd E+F: $15/2^+$	2.601 2.561	2.834 2.820	3.071 3.109	3.382 3.427	3.714 3.775	4.160 4.152	4.587 4.558	5.025 4.993	5.458 5.456	5.983 5.947	65/2
^{103}Pd G: $53/2$	0.453 0.454	- 1.159	1.912 1.888	- 2.639	3.439 3.414	- 4.211	5.003 5.031	- 5.874	6.662 6.738	- 7.624	x, 85/2
^{103}Ag X: $9/2^+$	0.028 0.027	0.591 0.532	0.851 0.987	1.491 1.433	1.822 1.882	2.330 2.337	2.820 2.801	3.321 3.273	3.862 3.755	4.497 4.246	
^{103}Ag Y: $19/2^-$	3.122 3.074	3.357 3.377	3.667 3.709	4.029 4.069	4.445 4.458	4.961 4.876	- 5.323	- 5.799	- 6.303	- 6.837	a
^{103}Ag Z: $21/2^-$	3.439 3.366	3.599 3.670	3.936 4.000	4.373 4.357	4.794 4.740	- 5.150	- 5.586	- 6.049	- 6.538	- 7.053	a
^{103}Cd A: $7/2^+$	0.188 0.188	- 0.561	0.908 0.931	- 1.312	1.830 1.707	- 2.117	2.453 2.542	- 2.981	- 3.434	- 3.900	

A=105

De Frenne D., Jacobs E. //NDS, 1993, v.68, p.935



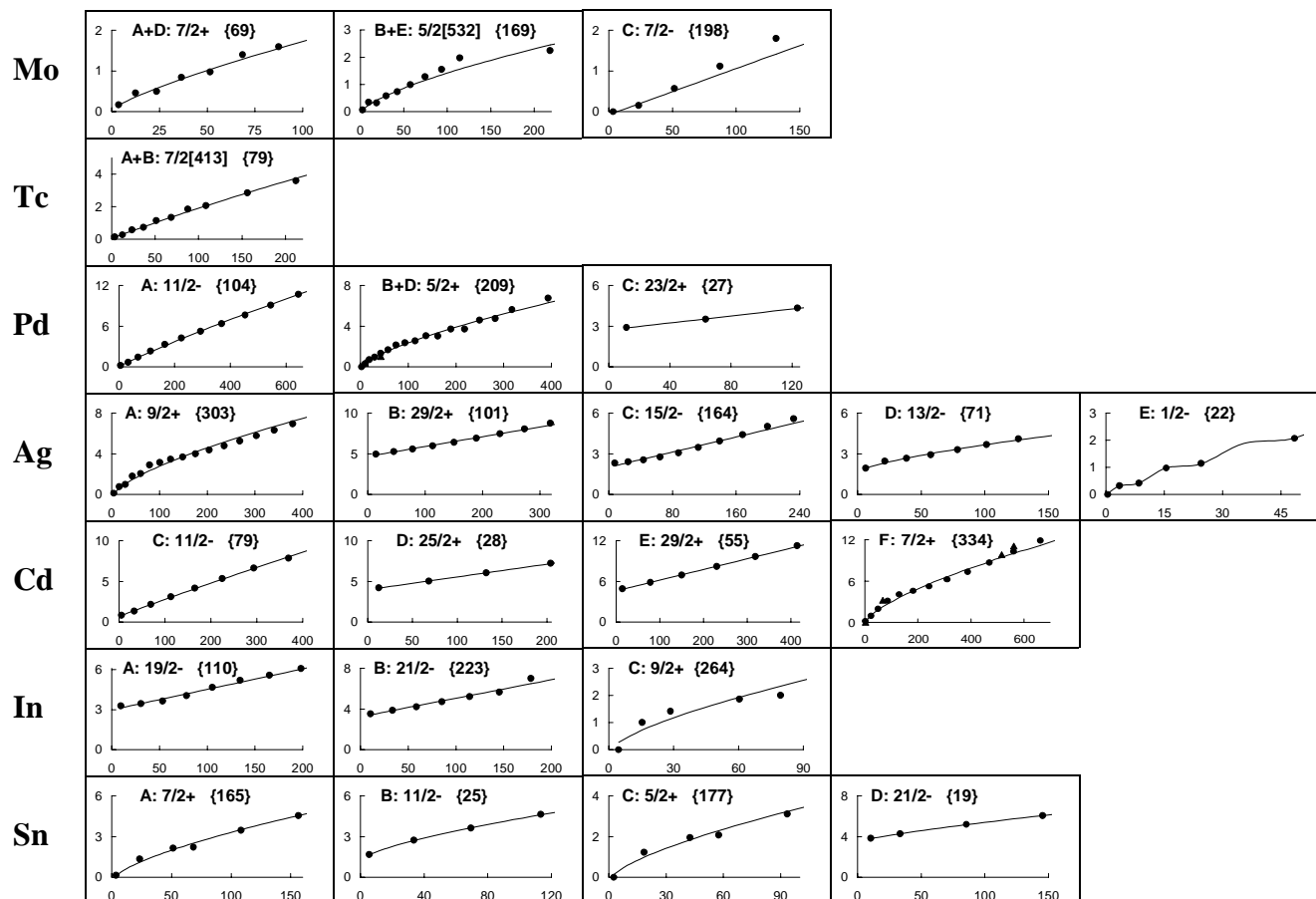
A=105

De Frenne D., Jacobs E. //NDS, 1993, v.68, p.935

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{105}Nb	0.0	0.128	0.290	0.511	0.735	1.046	-	-	-	-	
A: $5/2^+$	-0.001	0.129	0.296	0.501	0.743	1.022	1.338	1.692	2.083	2.510	a
^{105}Mo	0.0	0.095	0.233	0.378	0.624	0.795	1.176	1.353	-	-	
B: $5/2^-$	-0.005	0.100	0.234	0.398	0.592	0.815	1.069	1.352	1.665	2.008	a
^{105}Pd	0.0	-	0.782	-	1.671	-	2.552	-	3.119	-	
A: $5/2^+$	0.009	0.401	0.782	1.172	1.578	1.998	2.434	2.885	3.350	3.828	
^{105}Pd	0.306	-	1.012	-	1.902	-	2.756	-	3.295	-	31/2
B: $7/2^+$	0.307	0.683	1.033	1.384	1.741	2.107	2.483	2.868	3.264	3.669	
^{105}Pd	0.489	-	0.979	-	1.742	-	2.700	-	3.801	-	31/2
C: $11/2^-$	0.475	0.736	1.039	1.381	1.764	2.187	2.651	3.154	3.698	4.283	a
^{105}Pd	3.073	-	3.528	-	4.255	-	5.256	-	-	-	
D: $21/2^+$	3.011	3.301	3.616	3.957	4.322	4.713	5.130	5.571	6.038	6.530	a
^{105}Pd	0.0	-	1.209	-	2.491	-	3.870	-	5.358	-	x, 83/2
H: $43/2^+$	0.003	0.587	1.198	1.835	2.497	3.186	3.900	4.641	5.407	6.200	a

A=107

Blachot J. //NDS, 2000, v.89, p.213



ROTATIONAL BANDS IN ODD-MASS NUCLEI

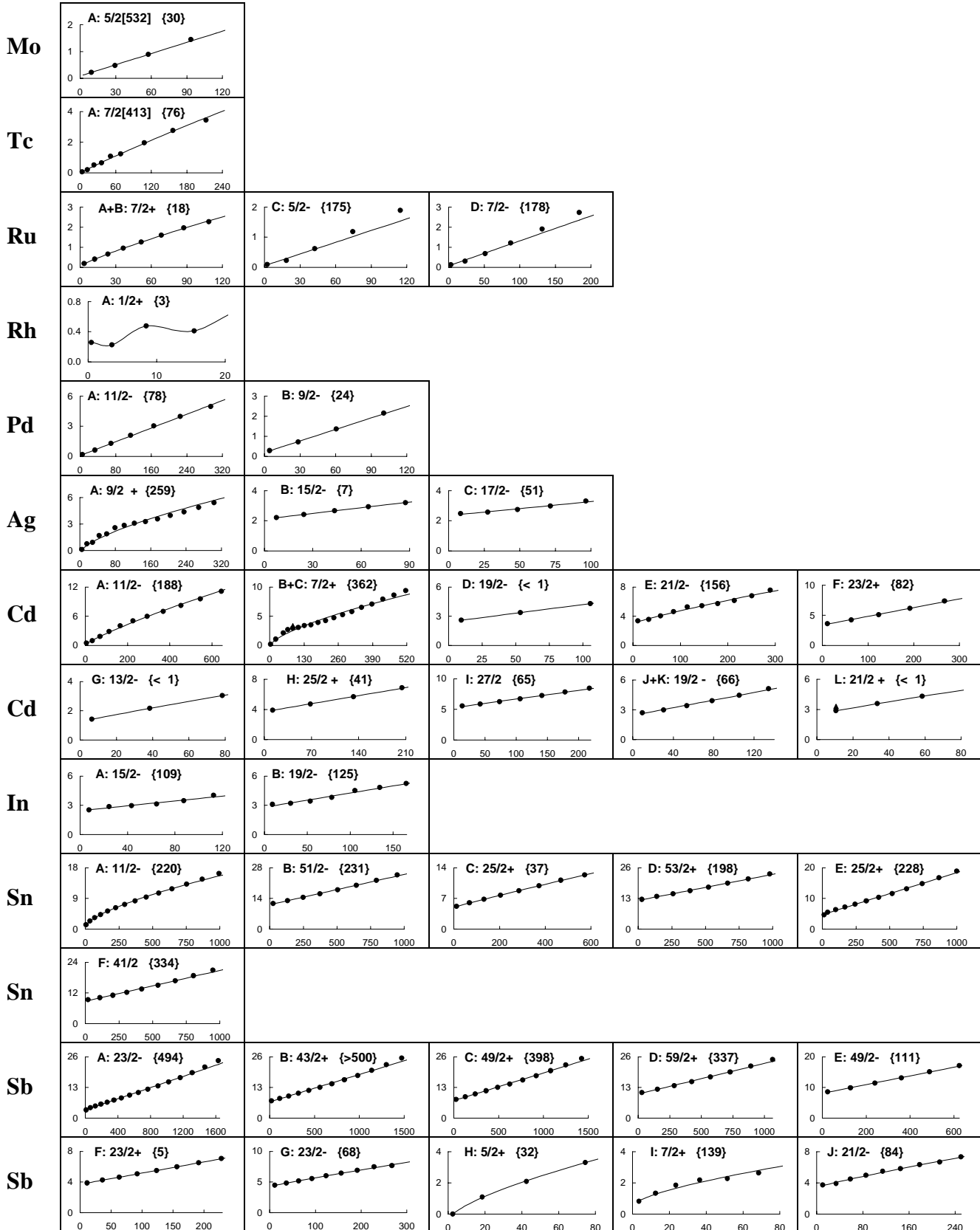
A=107

Blachot J. //NDS, 2000, v.89, p.213

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁰⁷ Mo	0.166	0.459	0.493	0.839	0.970	1.394	1.591	-	-	-	
A+D: 7/2 ⁺	0.170	0.366	0.575	0.800	1.038	1.290	1.555	1.831	2.119	2.417	b
¹⁰⁷ Mo	0.066	0.348	0.320	0.582	0.731	0.988	1.287	1.546	1.975	-	29/2
B+E: 5/2[532]	0.066	0.244	0.416	0.591	0.773	0.961	1.156	1.357	1.564	1.777	
¹⁰⁷ Mo	0.0	-	0.152	-	0.567	-	1.118	-	1.798	-	
C: 7/2 ⁻	-0.032	0.069	0.194	0.340	0.509	0.701	0.916	1.153	1.412	1.694	a
¹⁰⁷ Tc	0.137	0.276	0.569	0.729	1.144	1.331	1.841	2.058	-	2.848	29/2
A+B: 7/2[413]	0.132	0.309	0.522	0.768	1.046	1.354	1.690	2.053	2.441	2.854	
¹⁰⁷ Pd	0.215	-	0.687	-	1.443	-	2.348	-	3.305	-	51/2
A: 11/2 ⁻	0.211	0.462	0.749	1.069	1.422	1.806	2.221	2.664	3.135	3.633	
¹⁰⁷ Pd	0.0	0.312	0.696	0.955	1.340	1.676	2.146	2.373	2.557	3.049	39/2
B+D: 5/2 ⁺	0.022	0.328	0.624	0.929	1.244	1.571	1.909	2.259	2.620	2.991	c
¹⁰⁷ Pd	2.888	-	3.505	-	4.336	-	-	-	-	-	
C: 23/2 ⁺	2.875	3.195	3.541	3.912	4.309	4.732	5.180	5.654	6.153	6.679	a
¹⁰⁷ Ag	0.126	0.773	0.991	1.800	2.054	2.892	3.148	3.461	3.683	3.978	39/2
A: 9/2 ⁺	0.129	0.610	1.046	1.475	1.905	2.342	2.788	3.242	3.705	4.178	
¹⁰⁷ Ag	4.968	5.258	5.575	5.945	6.377	6.888	7.442	8.047	8.718	-	
B: 29/2 ⁺	4.856	5.229	5.626	6.047	6.492	6.961	7.455	7.972	8.513	9.079	a
¹⁰⁷ Ag	2.298	2.412	2.543	2.748	3.056	3.467	3.928	4.398	5.007	5.565	
C: 15/2 ⁻	2.120	2.355	2.619	2.910	3.229	3.576	3.950	4.352	4.782	5.240	a
¹⁰⁷ Ag	1.925	2.464	2.665	2.924	3.295	3.676	4.102	-	-	-	
D: 13/2 ⁻	1.959	2.338	2.680	3.013	3.344	3.677	4.013	4.355	4.701	5.053	
¹⁰⁷ Ag	0.0	0.325	0.423	0.973	1.147	-	2.065	-	-	-	
E: 1/2 ⁻	0.049	0.324	0.425	0.977	1.132	1.882	2.077	2.980	3.207	4.234	
¹⁰⁷ Cd	0.845	-	1.360	-	2.158	-	3.114	-	4.182	-	39/2
C: 11/2 ⁻	0.829	1.104	1.418	1.772	2.165	2.595	3.062	3.564	4.102	4.673	
¹⁰⁷ Cd	4.191	-	5.019	-	6.035	-	7.221	-	-	-	
D: 25/2 ⁺	4.172	4.596	5.051	5.537	6.055	6.605	7.186	7.798	8.441	9.116	a
¹⁰⁷ Cd	4.877	-	5.816	-	6.922	-	8.187	-	9.622	-	49/2
E: 29/2 ⁺	4.837	5.324	5.842	6.392	6.974	7.587	8.231	8.907	9.614	10.353	a
¹⁰⁷ Cd	0.205	-	0.933	-	1.923	-	3.118	-	4.009	-	51/2
F: 7/2 ⁺	0.204	0.621	1.019	1.421	1.833	2.257	2.694	3.144	3.606	4.080	c
¹⁰⁷ In	3.283	3.442	3.646	4.039	4.651	5.183	5.566	6.070	-	-	
A: 19/2 ⁻	3.135	3.456	3.808	4.190	4.603	5.047	5.521	6.025	6.560	7.126	a
¹⁰⁷ In	3.537	3.853	4.213	4.723	5.211	5.655	6.989	-	-	-	
B: 21/2 ⁻	3.437	3.853	4.306	4.795	5.320	5.881	6.478	7.111	7.781	8.487	a
¹⁰⁷ In	0.0	1.001	1.415	-	1.854	2.004	-	-	-	-	
C: 9/2 ⁺	0.278	0.729	1.136	1.535	1.935	2.341	2.755	3.176	3.606	4.044	
¹⁰⁷ Sn	0.151	-	1.349	-	2.144	2.208	-	3.460	-	4.553	
A: 7/2 ⁺	0.152	0.651	1.112	1.571	2.038	2.515	3.005	3.506	4.021	4.547	
¹⁰⁷ Sn	1.667	-	2.731	-	3.617	-	4.631	-	-	-	
B: 11/2 ⁻	1.669	2.222	2.711	3.184	3.655	4.128	4.607	5.093	5.587	6.088	
¹⁰⁷ Sn	0.0	-	1.222	-	1.942	2.066	-	3.099	-	-	
C: 5/2 ⁺	0.155	0.581	0.990	1.409	1.842	2.290	2.754	3.234	3.728	4.235	
¹⁰⁷ Sn	3.826	4.261	-	5.196	-	6.045	-	-	-	-	
D: 21/2 ⁻	3.819	4.281	4.726	5.168	5.612	6.060	6.512	6.972	7.437	7.910	

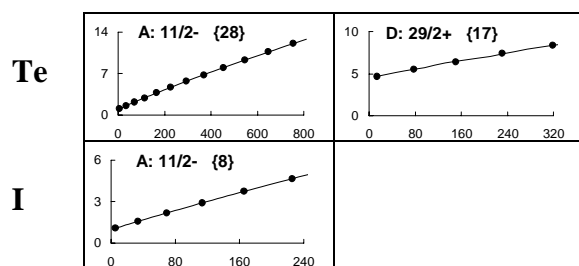
A=109

Blachot J. //NDS, 1999, v.86, p.505



A=109 (continuation)

Blachot J. //NDS, 1999, v.86, p.505



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{109}Mo	-	0.222	-	0.473	-	0.886	-	1.444	-	-	
A: 5/2[532]	0.121	0.219	0.344	0.497	0.679	0.888	1.125	1.390	1.683	2.004	a
^{109}Tc	0.069	0.207	0.505	0.645	1.085	1.232	-	1.952	-	2.755	x, 29/2
A: 7/2[413]	0.067	0.237	0.442	0.679	0.949	1.248	1.576	1.931	2.312	2.718	
^{109}Ru	0.185	0.408	0.658	0.948	1.256	1.601	1.967	2.274	-	-	
A+B: 7/2 ⁺	0.185	0.408	0.663	0.946	1.255	1.587	1.941	2.315	2.708	3.119	
^{109}Ru	0.096	-	0.230	-	0.619	-	1.184	-	1.891	-	
C: 5/2 ⁻	0.087	0.178	0.294	0.437	0.606	0.800	1.021	1.268	1.540	1.839	a
^{109}Ru	0.132	-	0.304	-	0.678	-	1.219	-	1.910	-	27/2
D: 7/2 ⁻	0.120	0.232	0.369	0.530	0.716	0.928	1.164	1.424	1.710	2.021	a
^{109}Rh	0.258	0.226	0.478	(0.410)	-	-	-	-	-	-	
A: 1/2 ⁺	0.259	0.225	0.475	0.413	0.765	0.686	1.111	1.018	1.501	1.398	
^{109}Pd	0.189	-	0.625	-	1.289	-	2.103	-	3.030	-	35/2
A: 11/2 ⁻	0.187	0.409	0.665	0.956	1.281	1.639	2.033	2.460	2.921	3.417	a
^{109}Pd	0.287	-	0.718	-	1.361	-	2.155	-	-	-	
B: 9/2 ⁻	0.285	0.494	0.742	1.029	1.353	1.715	2.116	2.554	3.031	3.546	a
^{109}Ag	0.133	0.774	0.931	1.703	1.894	2.568	2.841	3.090	3.276	3.575	35/2
A: 9/2 ⁺	0.138	0.583	0.985	1.380	1.777	2.179	2.589	3.006	3.433	3.867	
^{109}Ag	2.207	2.420	2.661	2.940	3.204	-	-	-	-	-	
B: 15/2 ⁻	2.205	2.424	2.665	2.928	3.210	3.512	3.833	4.171	4.527	4.900	
^{109}Ag	2.480	2.568	2.741	2.989	3.317	-	-	-	-	-	
C: 17/2 ⁻	2.425	2.602	2.797	3.011	3.244	3.495	3.765	4.053	4.360	4.686	a
^{109}Cd	0.463	-	0.985	-	1.821	-	2.861	-	4.022	-	51/2
A: 11/2 ⁻	0.449	0.748	1.081	1.447	1.843	2.268	2.720	3.197	3.698	4.222	
^{109}Cd	0.203	-	1.066	-	2.141	2.688	2.943	3.059	3.383	-	45/2
B+C: 7/2 ⁺	0.209	0.621	1.000	1.378	1.763	2.156	2.559	2.972	3.395	3.828	c
^{109}Cd	2.591	-	3.372	-	4.297	-	-	-	-	-	
D: 19/2 ⁻	2.591	2.964	3.373	3.817	4.297	4.812	5.363	5.949	6.571	7.228	a
^{109}Cd	3.355	3.550	4.031	4.631	5.280	5.441	5.731	6.165	6.796	7.555	
E: 21/2 ⁻	3.284	3.688	4.103	4.530	4.970	5.422	5.887	6.364	6.853	7.354	
^{109}Cd	3.621	-	4.233	-	5.084	-	6.156	-	7.386	-	
F: 23/2 ⁺	3.553	3.915	4.306	4.726	5.175	5.653	6.160	6.696	7.261	7.855	a
^{109}Cd	1.425	-	2.166	-	3.043	-	-	-	-	-	
G: 13/2 ⁻	1.425	1.778	2.166	2.588	3.043	3.528	4.041	4.583	5.150	5.742	
^{109}Cd	3.911	-	4.698	-	5.672	-	6.862	-	-	-	
H: 25/2 ⁺	3.886	4.296	4.737	5.209	5.711	6.243	6.806	7.399	8.022	8.676	c
^{109}Cd	5.560	5.862	6.241	6.704	7.244	7.822	8.429	-	-	-	
I: 27/2	5.473	5.880	6.315	6.778	7.269	7.788	8.335	8.910	9.514	10.145	a
^{109}Cd	2.700	2.974	3.411	3.897	4.459	5.123	-	-	-	-	
J+K: 19/2 ⁻	2.630	3.030	3.468	3.944	4.459	5.012	5.602	6.231	6.898	7.603	a
^{109}Cd	2.867	3.570	4.294	-	-	-	-	-	-	-	
L: 21/2 ⁺	2.867	3.570	4.294	5.040	5.809	6.600	7.413	8.249	9.105	9.983	c

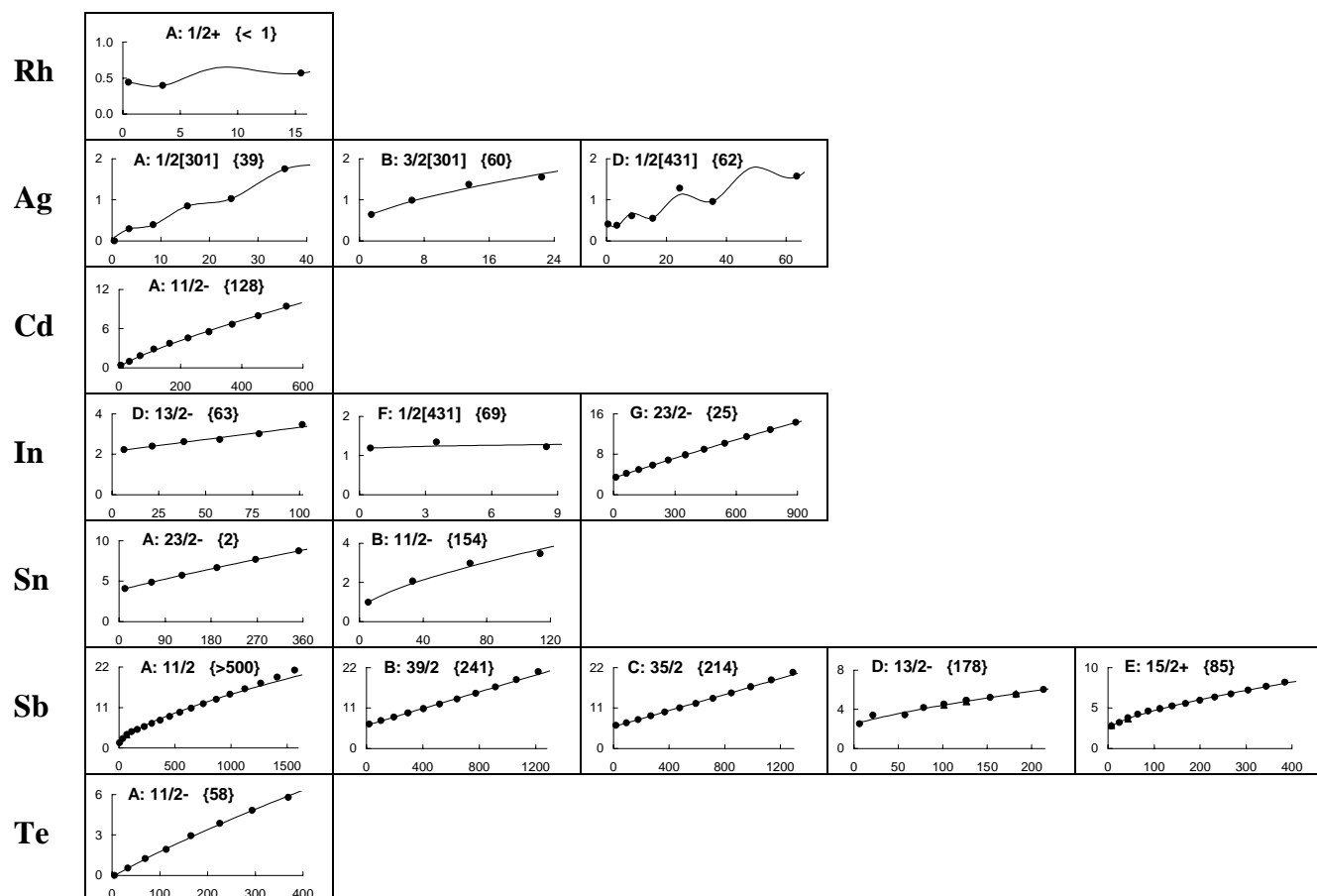
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=109 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁰⁹ In	2.532	2.869	2.958	3.122	3.462	4.037	-	-	-	-	
A: 15/2 ⁻	2.542	2.755	2.993	3.256	3.544	3.858	4.196	4.559	4.948	5.361	a
¹⁰⁹ In	3.092	3.202	3.410	3.800	4.508	4.832	5.242	-	-	-	
B: 19/2 ⁻	2.941	3.247	3.582	3.946	4.340	4.762	5.214	5.695	6.205	6.744	a
¹⁰⁹ Sn	1.268	-	2.349	-	3.299	-	4.260	-	5.283	-	63/2
A: 11/2 ⁻	1.270	1.832	2.329	2.810	3.288	3.768	4.254	4.747	5.248	5.756	
¹⁰⁹ Sn	11.700	-	12.980	-	14.430	-	16.070	-	17.910	-	79/2
B: 51/2 ⁻	11.495	12.227	12.987	13.774	14.589	15.431	16.301	17.198	18.124	19.076	a
¹⁰⁹ Sn	5.170	-	5.991	-	6.823	-	7.723	-	8.725	-	53/2
C: 25/2 ⁺	5.194	5.560	5.950	6.364	6.801	7.261	7.743	8.248	8.773	9.320	
¹⁰⁹ Sn	12.590	-	13.770	-	14.910	-	16.220	-	17.720	-	81/2
D: 53/2 ⁺	12.454	13.062	13.691	14.343	15.016	15.712	16.430	17.169	17.931	18.715	a
¹⁰⁹ Sn	4.607	5.448	-	6.335	-	7.192	-	8.122	-	9.143	67/2
E: 25/2 ⁺	4.889	5.259	5.656	6.081	6.533	7.012	7.519	8.053	8.615	9.204	a
¹⁰⁹ Sn	9.329	-	10.130	-	11.070	-	12.190	-	13.490	-	73/2
F: 41/2	9.025	9.542	10.083	10.649	11.238	11.852	12.489	13.151	13.837	14.546	a
¹⁰⁹ Sb	3.468	-	4.401	-	5.139	-	5.945	-	6.736	-	x, 83/2
A: 23/2 ⁻	3.619	3.916	4.235	4.579	4.946	5.337	5.751	6.189	6.651	7.136	a
¹⁰⁹ Sb	7.352	-	8.320	-	9.355	-	10.480	-	11.700	-	y, 87/2
B: 43/2 ⁺	7.138	7.661	8.208	8.778	9.371	9.987	10.627	11.290	11.976	12.686	a
¹⁰⁹ Sb	7.918	-	9.020	-	10.250	-	11.560	-	12.970	-	z, 89/2
C: 49/2 ⁺	7.747	8.345	8.966	9.611	10.279	10.971	11.686	12.424	13.186	13.972	a
¹⁰⁹ Sb	10.870	-	12.210	-	13.740	-	15.460	-	17.390	-	w, 87/2
D: 59/2 ⁺	10.613	11.405	12.222	13.066	13.935	14.830	15.751	16.699	17.672	18.671	a
¹⁰⁹ Sb	8.574	-	9.857	-	11.390	-	13.150	-	15.080	-	v, 69/2
E: 49/2 ⁻	8.465	9.188	9.939	10.718	11.526	12.362	13.226	14.119	15.040	15.990	a
¹⁰⁹ Sb	3.874	4.235	4.627	5.044	5.506	5.984	6.509	7.042	-	-	
F: 23/2 ⁺	3.870	4.235	4.629	5.053	5.506	5.988	6.499	7.040	7.609	8.208	a
¹⁰⁹ Sb	4.485	4.804	5.163	5.567	5.995	6.450	6.913	7.481	7.684	-	
G: 23/2 ⁻	4.460	4.817	5.194	5.589	6.002	6.432	6.879	7.342	7.820	8.314	
¹⁰⁹ Sb	0.0	-	1.101	-	2.092	-	3.301	-	-	-	
H: 5/2 ⁺	0.017	0.549	1.065	1.594	2.143	2.712	3.302	3.912	4.541	5.188	
¹⁰⁹ Sb	0.832	1.341	1.855	2.194	2.272	2.651	-	-	-	-	
I: 7/2 ⁺	0.876	1.282	1.658	2.034	2.417	2.809	3.212	3.624	4.047	4.480	
¹⁰⁹ Sb	3.751	3.931	4.486	4.981	5.489	5.825	6.336	6.669	7.350	-	
J: 21/2 ⁻	3.675	4.076	4.492	4.925	5.372	5.834	6.311	6.801	7.306	7.824	
¹⁰⁹ Te	1.089	-	1.583	-	2.192	-	2.887	-	3.777	-	55/2
A: 11/2 ⁻	1.090	1.318	1.578	1.869	2.190	2.539	2.916	3.320	3.750	4.204	
¹⁰⁹ Te	4.673	-	5.550	-	6.399	-	7.388	-	8.362	-	
D: 29/2 ⁺	4.677	5.098	5.530	5.973	6.429	6.895	7.373	7.862	8.362	8.873	
¹⁰⁹ I	1.074	-	1.579	-	2.175	-	2.904	-	3.749	-	31/2
A: 11/2 ⁻	1.076	1.307	1.570	1.863	2.185	2.534	2.910	3.312	3.738	4.187	

A=111

Blachot J. //NDS, 1996, v.77, p.299



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹¹¹ Rh	0.440	0.395	(0.663)	0.568	-	-	-	-	-	-	
A: 1/2 ⁺	0.440	0.395	0.648	0.568	0.922	0.820	1.245	1.126	1.608	1.475	
¹¹¹ Ag	0.0	0.290	0.391	0.846	1.024	1.749	-	-	-	-	
A: 1/2[301]	0.094	0.290	0.390	0.846	1.027	1.744	2.005	2.982	3.324	4.562	a
¹¹¹ Ag	0.642	0.987	1.377	1.550	-	-	-	-	-	-	
B: 3/2[301]	0.653	0.968	1.290	1.631	1.991	2.370	2.766	3.178	3.605	4.047	
¹¹¹ Ag	0.405	0.377	0.607	0.546	1.277	0.959	-	1.574	-	-	
D: 1/2[431]	0.401	0.357	0.669	0.567	1.128	0.967	1.779	1.559	2.620	2.342	a
¹¹¹ Cd	0.396	-	0.968	-	1.852	-	2.847	-	3.763	-	47/2
A: 11/2 ⁻	0.390	0.701	1.041	1.408	1.800	2.216	2.653	3.112	3.590	4.087	
¹¹¹ In	2.235	2.402	2.614	2.738	3.020	3.462	-	-	-	-	
D: 13/2 ⁻	2.216	2.395	2.598	2.825	3.076	3.350	3.649	3.971	4.318	4.688	a
¹¹¹ In	1.188	1.345	1.218	-	-	-	-	-	-	-	
F: 1/2[431]	1.189	1.243	1.281	1.353	1.400	1.485	1.538	1.633	1.692	1.795	
¹¹¹ In	3.461	-	4.167	-	4.981	-	5.873	-	6.826	-	x, 63/2
G: 23/2 ⁻	3.468	3.807	4.169	4.555	4.964	5.396	5.849	6.325	6.821	7.338	
¹¹¹ Sn	4.074	-	4.876	-	5.746	-	6.689	-	7.685	-	43/2
A: 23/2 ⁻	4.074	4.466	4.876	5.304	5.748	6.209	6.686	7.178	7.684	8.206	
¹¹¹ Sn	0.980	-	2.062	-	2.984	-	3.459	-	-	-	
B: 11/2 ⁻	0.998	1.501	1.949	2.382	2.813	3.247	3.687	4.133	4.586	5.046	
¹¹¹ Sb	1.419	-	2.561	-	3.634	-	4.385	-	5.056	-	79/2
A: 11/2 ⁻	1.472	1.980	2.430	2.867	3.301	3.737	4.179	4.628	5.083	5.546	c

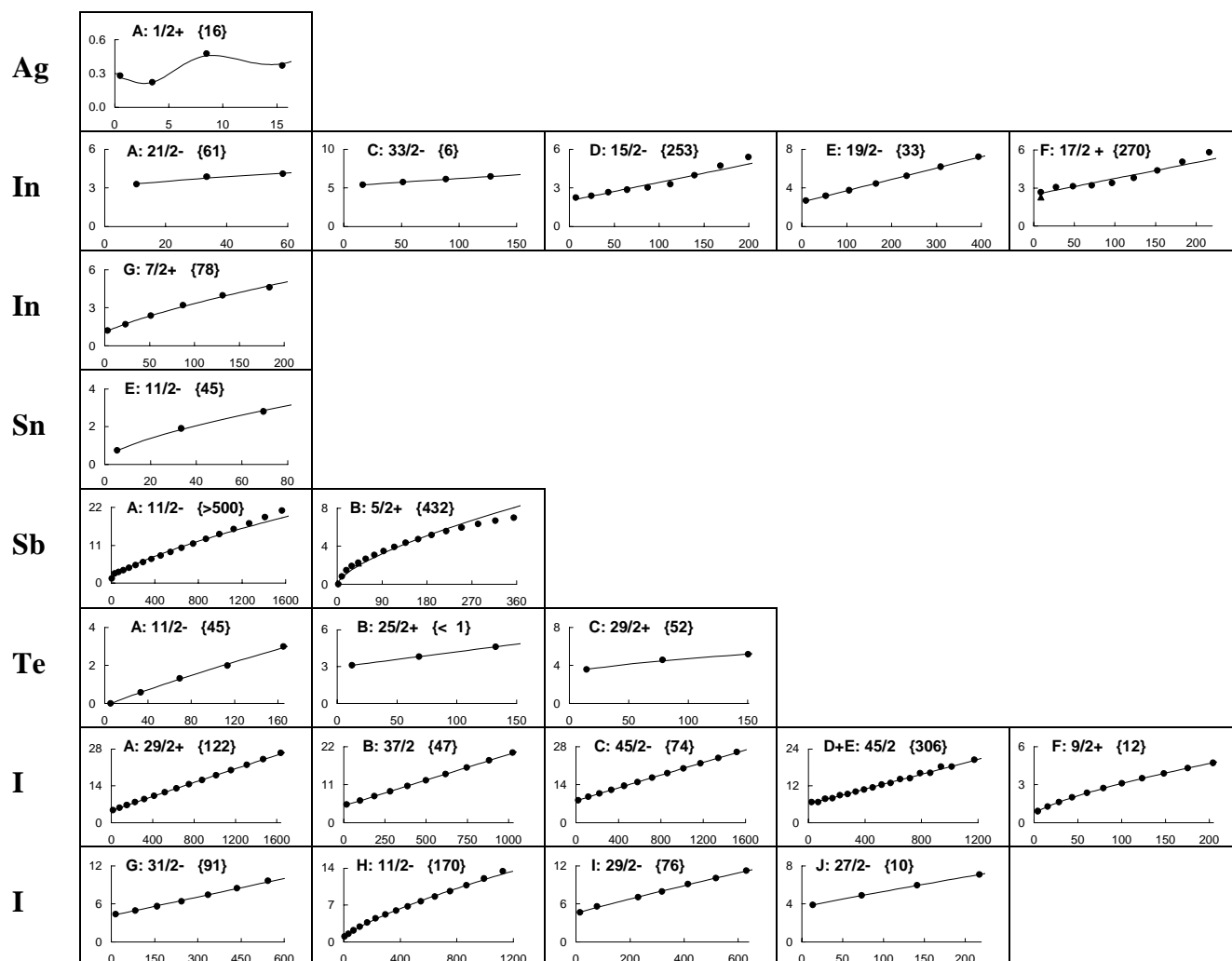
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=111 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹¹¹ Sb B: 39/2	6.642	-	7.563	-	8.561	-	9.644	-	10.810	-	y, 79/2 a
¹¹¹ Sb C: 35/2	6.250	-	7.020	-	7.886	-	8.841	-	9.886	-	x, 79/2 a
¹¹¹ Sb D: 13/2 ⁻	2.509	3.395	-	3.435	4.159	4.535	4.922	5.194	5.507	6.022	31/2 c
¹¹¹ Sb E: 15/2 ⁺	2.766	3.227	3.782	4.224	4.634	4.929	5.237	5.578	5.949	6.344	41/2 c
¹¹¹ Te A: 11/2 ⁻	-0.005	0.257	0.549	0.870	1.218	1.592	1.990	2.410	2.852	3.315	x, 39/2

A=113

Blachot J. //NDS, 1998, v.83, p.647



ROTATIONAL BANDS IN ODD-MASS NUCLEI

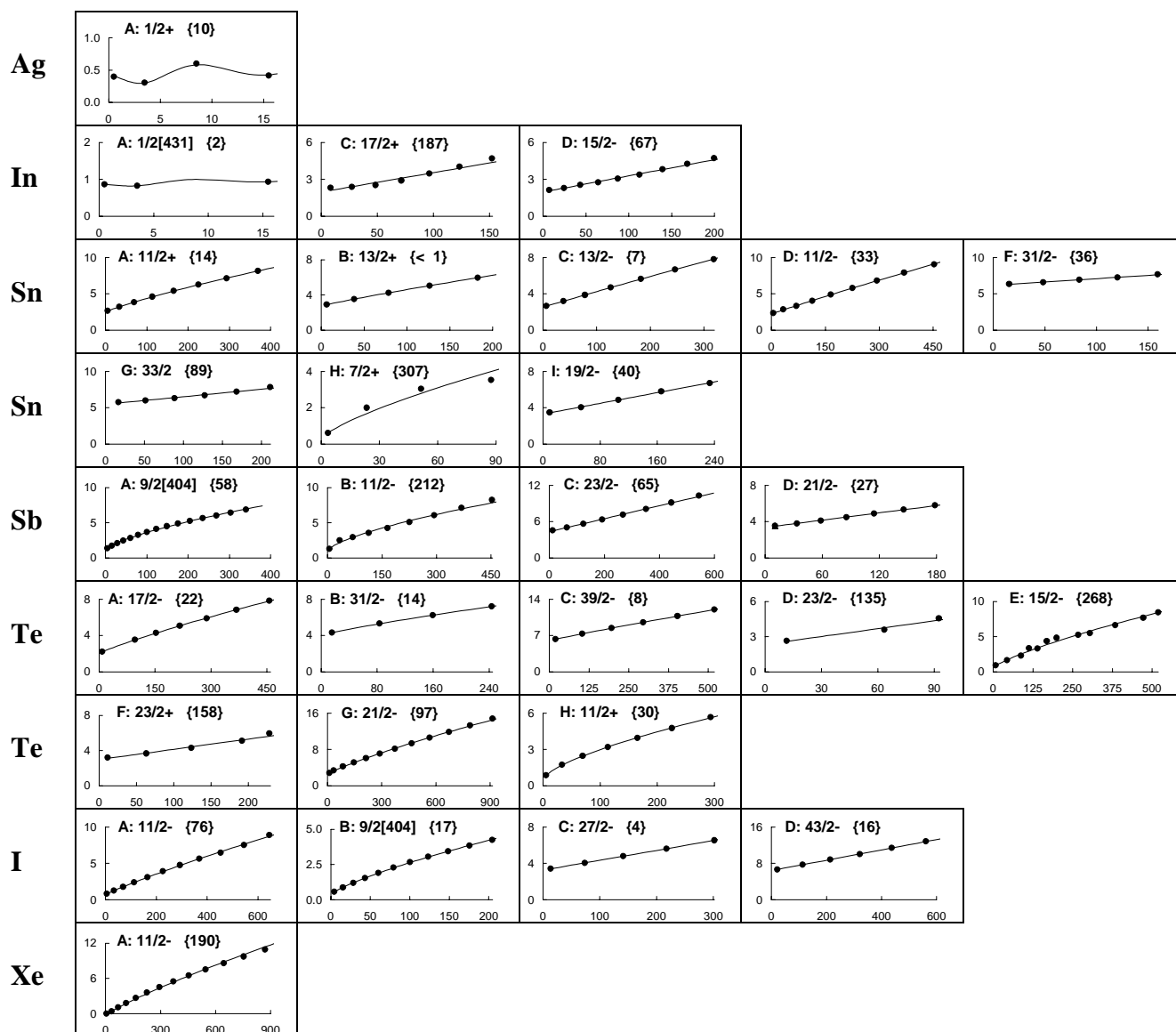
A=113

Blachot J. //NDS, 1998, v.83, p.647

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{113}Ag	0.280	0.222	0.477	0.370	-	-	-	-	-	-	
A: $1/2^+$	0.262	0.222	0.458	0.387	0.714	0.624	1.015	0.912	1.353	1.238	
^{113}In	3.290	3.854	4.090	-	-	-	-	-	-	-	
A: $21/2^-$	3.319	3.765	4.141	4.491	4.828	5.158	5.485	5.811	6.137	6.463	
^{113}In	5.394	5.734	6.113	6.476	-	-	-	-	-	-	y
C: $33/2^-$	5.392	5.742	6.104	6.479	6.867	7.266	7.676	8.098	8.531	8.975	
^{113}In	2.233	2.396	2.664	2.854	3.023	3.280	3.973	4.715	5.393	-	
D: $15/2^-$	2.115	2.357	2.627	2.926	3.253	3.609	3.993	4.405	4.846	5.316	a
^{113}In	2.665	-	3.172	-	3.743	-	4.441	-	5.259	-	x, 43/2
E: $19/2^-$	2.649	2.895	3.164	3.458	3.774	4.114	4.478	4.865	5.275	5.709	a
^{113}In	2.670	3.072	3.122	3.214	3.398	3.788	4.378	5.062	5.791	-	
F: $17/2^+$	2.596	2.835	3.100	3.389	3.704	4.044	4.409	4.799	5.215	5.655	a, c
^{113}In	1.191	-	1.690	-	2.391	-	3.195	-	3.968	-	27/2
G: $7/2^+$	1.181	1.447	1.736	2.048	2.380	2.732	3.102	3.490	3.893	4.312	
^{113}Sn	0.738	-	1.907	-	2.807	-	-	-	-	-	
E: $11/2^-$	0.741	1.330	1.853	2.359	2.862	3.368	3.881	4.400	4.928	5.465	
^{113}Sb	1.348	-	2.818	-	3.216	-	3.781	-	4.463	-	79/2
A: $11/2^-$	1.455	1.833	2.206	2.585	2.973	3.371	3.781	4.202	4.635	5.078	
^{113}Sb	0.0	0.814	1.461	1.910	2.263	2.662	3.086	3.474	3.916	4.365	37/2
B: $5/2^+$	0.301	0.714	1.111	1.518	1.940	2.376	2.828	3.295	3.777	4.272	c
^{113}Te	0.0	-	0.587	-	1.312	-	1.995	-	3.002	-	x
A: $11/2^-$	0.0	0.280	0.589	0.924	1.283	1.666	2.071	2.496	2.941	3.404	
^{113}Te	3.114	-	3.814	-	4.618	-	-	-	-	-	x
B: $25/2^+$	3.114	3.452	3.815	4.204	4.617	5.056	5.519	6.008	6.522	7.060	a
^{113}Te	3.575	-	4.561	-	5.166	-	-	-	-	-	x
C: $29/2^+$	3.594	4.081	4.486	4.857	5.211	5.555	5.892	6.225	6.556	6.885	
^{113}I	4.715	-	5.666	-	6.695	-	7.796	-	8.970	-	x, 85/2
A: $29/2^+$	4.776	5.200	5.651	6.128	6.632	7.161	7.717	8.298	8.905	9.537	
^{113}I	5.209	-	6.354	-	7.683	-	9.106	-	10.630	-	y, 73/2
B: $37/2$	5.190	5.768	6.376	7.013	7.679	8.376	9.102	9.857	10.643	11.457	a
^{113}I	8.294	-	9.496	-	10.770	-	12.120	-	13.550	-	89/2
C: $45/2^-$	8.333	8.899	9.487	10.098	10.732	11.388	12.067	12.768	13.491	14.236	
^{113}I	6.708	6.708	7.793	7.967	8.912	9.302	10.080	10.750	11.430	12.380	z, 81/2
D+E: $45/2$	6.393	6.961	7.552	8.168	8.808	9.472	10.161	10.873	11.610	12.371	a
^{113}I	0.910	1.269	1.614	1.988	2.359	2.733	3.111	3.506	3.889	4.298	29/2
F: $9/2^+$	0.907	1.275	1.627	1.983	2.346	2.719	3.102	3.495	3.898	4.312	
^{113}I	4.384	-	4.971	-	5.629	-	6.408	-	7.435	-	55/2
G: $31/2^-$	4.309	4.632	4.975	5.338	5.720	6.121	6.542	6.983	7.444	7.924	a
^{113}I	1.018	-	1.548	-	2.186	-	2.869	-	3.695	-	67/2
H: $11/2^-$	1.012	1.288	1.577	1.879	2.194	2.523	2.865	3.219	3.585	3.963	
^{113}I	4.673	-	5.585	-	-	-	7.032	-	7.965	-	57/2
I: $29/2^-$	4.729	5.080	5.450	5.839	6.246	6.670	7.111	7.568	8.042	8.532	
^{113}I	3.904	-	4.880	-	5.968	-	7.079	-	-	-	
J: $27/2^-$	3.902	4.386	4.890	5.412	5.953	6.511	7.087	7.679	8.288	8.912	

A=115

Blachot J. //NDS, 1999, v.86, p.151



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹¹⁵ Ag	0.396	0.304	0.597	0.414	-	-	-	-	-	-	
A: $1/2^+$	0.402	0.301	0.582	0.425	0.796	0.603	1.038	0.818	1.304	1.062	
¹¹⁵ In	0.864	0.829	-	0.934	-	-	-	-	-	-	
A: $1/2[431]$	0.864	0.826	0.994	0.934	1.157	1.082	1.344	1.260	1.553	1.459	
¹¹⁵ In	2.310	2.393	2.530	2.906	3.476	4.036	4.699	-	-	-	
C: $17/2^+$	2.108	2.406	2.736	3.097	3.490	3.914	4.369	4.856	5.374	5.924	a
¹¹⁵ In	2.137	2.283	2.539	2.746	3.039	3.385	3.822	4.245	4.716	-	
D: $15/2^-$	2.069	2.292	2.542	2.818	3.120	3.449	3.804	4.185	4.592	5.026	a
¹¹⁵ Sn	2.654	-	3.205	-	3.859	-	4.611	-	5.418	-	39/2
A: $11/2^+$	2.650	2.920	3.214	3.531	3.868	4.224	4.599	4.991	5.400	5.824	
¹¹⁵ Sn	2.913	-	3.526	-	4.243	-	5.061	-	5.966	-	
B: $13/2^+$	2.913	3.205	3.525	3.872	4.244	4.641	5.061	5.503	5.965	6.448	
¹¹⁵ Sn	2.654	-	3.204	-	3.879	-	4.688	-	5.630	-	37/2
C: $13/2^-$	2.653	2.911	3.203	3.527	3.884	4.272	4.692	5.142	5.623	6.133	

ROTATIONAL BANDS IN ODD-MASS NUCLEI

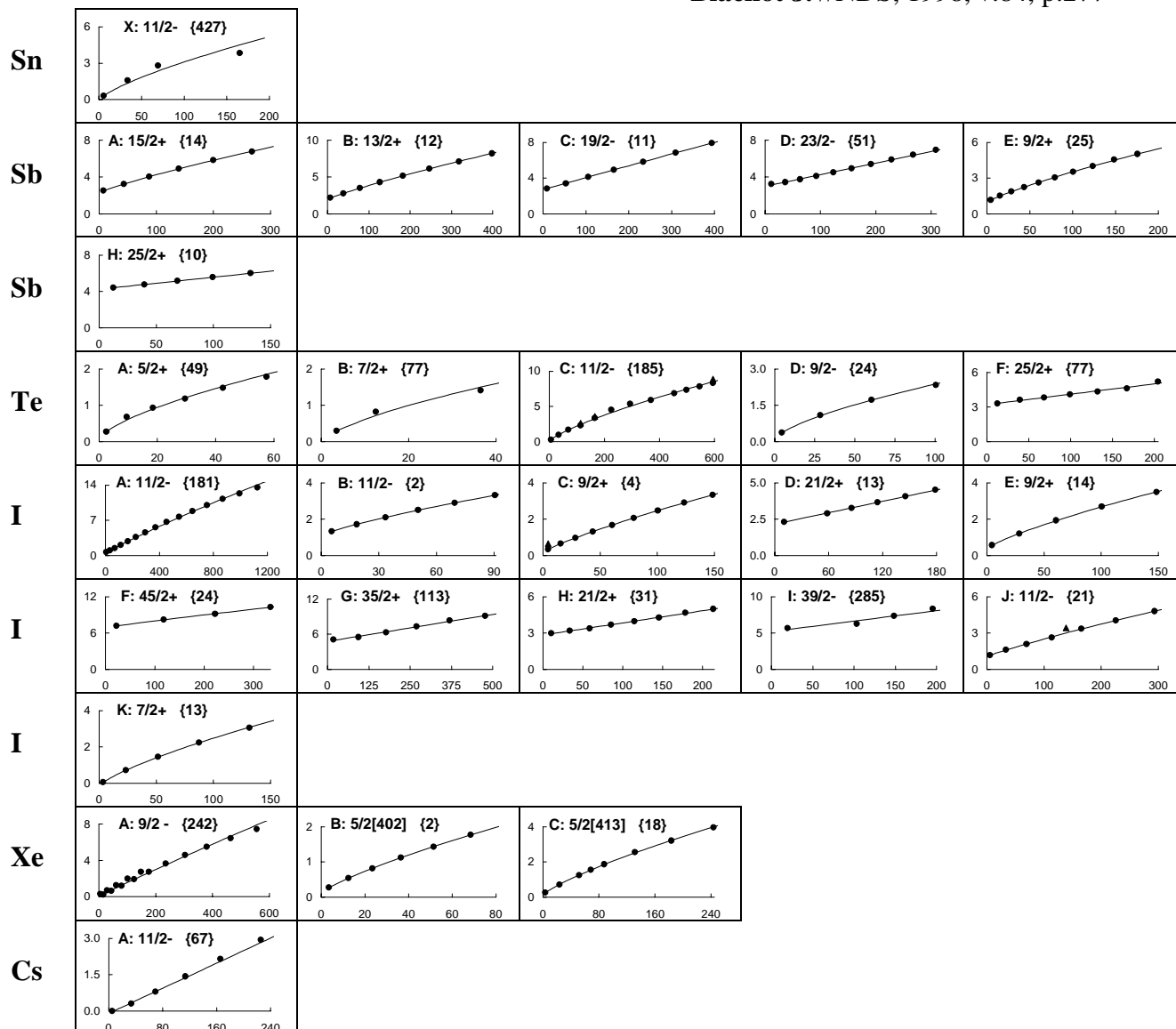
A=115 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹¹⁵ Sn	2.347	-	2.843	-	3.319	-	4.060	-	4.889	-	43/2
D: 11/2 ⁻	2.351	2.562	2.803	3.075	3.378	3.709	4.069	4.458	4.874	5.317	
¹¹⁵ Sn	6.357	6.576	6.950	7.249	7.684	-	-	-	-	-	
F: 31/2 ⁻	6.319	6.622	6.944	7.284	7.642	8.019	8.415	8.828	9.260	9.711	a
¹¹⁵ Sn	5.748	6.002	6.328	6.711	7.204	7.830	-	-	-	-	x
G: 33/2	5.659	6.021	6.403	6.807	7.231	7.675	8.141	8.627	9.134	9.661	a
¹¹⁵ Sn	0.613	-	1.997	-	3.043	-	3.533	-	-	-	
H: 7/2 ⁺	0.638	1.161	1.687	2.232	2.799	3.390	4.003	4.638	5.294	5.971	
¹¹⁵ Sn	3.472	-	4.047	-	4.866	-	5.810	-	6.719	-	
I: 19/2 ⁻	3.449	3.758	4.097	4.465	4.863	5.290	5.747	6.233	6.749	7.294	a
¹¹⁵ Sb	1.381	1.755	2.093	2.458	2.838	3.255	3.693	4.120	4.511	4.885	37/2
A: 9/2[404]	1.356	1.767	2.140	2.506	2.875	3.249	3.630	4.019	4.416	4.821	
¹¹⁵ Sb	1.300	-	2.517	-	2.961	-	3.542	-	4.263	-	43/2
B: 11/2 ⁻	1.351	1.793	2.184	2.562	2.937	3.314	3.696	4.083	4.476	4.875	
¹¹⁵ Sb	4.551	-	5.035	-	5.633	-	6.349	-	7.172	-	51/2
C: 23/2 ⁻	4.486	4.753	5.042	5.352	5.684	6.037	6.411	6.807	7.225	7.663	a
¹¹⁵ Sb	3.545	3.792	4.112	4.492	4.901	5.333	5.793	-	-	-	
D: 21/2 ⁻	3.504	3.813	4.149	4.513	4.903	5.320	5.764	6.235	6.732	7.257	a, c
¹¹⁵ Te	2.224	-	-	-	3.529	-	4.290	-	5.069	-	45/2
A: 17/2 ⁻	2.225	2.524	2.840	3.174	3.525	3.891	4.273	4.669	5.080	5.504	
¹¹⁵ Te	4.319	-	5.318	-	6.234	-	7.216	-	-	-	
B: 31/2 ⁻	4.321	4.822	5.306	5.782	6.255	6.729	7.204	7.683	8.165	8.651	
¹¹⁵ Te	6.320	-	7.361	-	8.439	-	9.562	-	10.770	-	59/2
C: 39/2 ⁻	6.324	6.830	7.352	7.887	8.437	9.000	9.577	10.167	10.770	11.385	
¹¹⁵ Te	2.639	-	3.600	4.572	-	-	-	-	-	-	
D: 23/2 ⁻	2.609	3.164	3.765	4.410	5.099	5.833	6.611	7.434	8.301	9.213	a
¹¹⁵ Te	0.931	-	1.654	-	2.287	3.331	3.326	4.371	4.829	-	47/2
E: 15/2 ⁻	0.916	1.313	1.714	2.123	2.542	2.972	3.414	3.867	4.332	4.808	
¹¹⁵ Te	3.193	-	3.675	-	4.290	-	5.103	-	5.938	-	
F: 23/2 ⁺	3.120	3.410	3.724	4.061	4.421	4.804	5.211	5.641	6.094	6.570	a
¹¹⁵ Te	2.834	3.389	-	4.246	-	5.150	-	6.071	-	7.067	63/2
G: 21/2 ⁻	2.899	3.309	3.735	4.177	4.636	5.111	5.601	6.106	6.626	7.159	
¹¹⁵ Te	0.872	-	1.750	-	2.467	-	3.209	-	3.946	-	35/2
H: 11/2 ⁺	0.880	1.317	1.706	2.082	2.456	2.833	3.214	3.600	3.993	4.392	
¹¹⁵ I	0.837	-	1.248	-	1.765	-	2.387	-	3.116	-	51/2
A: 11/2 ⁻	0.834	1.031	1.255	1.505	1.778	2.075	2.393	2.733	3.093	3.472	
¹¹⁵ I	0.565	0.878	1.198	1.541	1.899	2.274	2.659	3.053	3.448	3.840	29/2
B: 9/2[404]	0.563	0.881	1.206	1.543	1.895	2.261	2.640	3.033	3.439	3.858	
¹¹⁵ I	3.406	-	4.053	-	4.799	-	5.620	-	6.543	-	
C: 27/2 ⁻	3.404	3.720	4.057	4.416	4.797	5.200	5.624	6.071	6.539	7.028	a
¹¹⁵ I	6.672	-	7.728	-	8.857	-	10.070	-	11.390	-	63/2
D: 43/2 ⁻	6.672	7.184	7.720	8.278	8.858	9.462	10.088	10.737	11.409	12.103	a
¹¹⁵ Xe	0.0	-	0.414	-	1.049	-	1.816	-	2.670	-	x, 59/2
A: 11/2 ⁻	-0.028	0.198	0.454	0.737	1.047	1.382	1.741	2.123	2.527	2.952	

A=117

Baglin C.M. //NDS, 1992, v.66, p.451

Blachot J. //NDS, 1998, v.84, p.277



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹¹⁷ Sn	0.315	-	1.593	-	2.808	-	-	-	3.824	-	
X: 11/2 ⁻	0.327	0.851	1.351	1.852	2.361	2.880	3.411	3.955	4.511	5.080	
¹¹⁷ Sb	2.527	-	3.230	-	4.030	-	4.902	-	5.824	-	35/2
A: 15/2 ⁺	2.524	2.873	3.241	3.627	4.030	4.451	4.887	5.340	5.807	6.289	
¹¹⁷ Sb	2.187	-	2.779	-	3.486	-	4.297	-	5.183	-	41/2
B: 13/2 ⁺	2.182	2.472	2.788	3.130	3.494	3.881	4.289	4.717	5.164	5.629	
¹¹⁷ Sb	2.846	-	3.416	-	4.116	-	4.929	-	5.837	-	43/2
C: 19/2 ⁻	2.839	3.121	3.429	3.763	4.124	4.510	4.922	5.359	5.822	6.310	
¹¹⁷ Sb	3.231	3.438	3.741	4.107	4.509	4.937	5.394	5.883	6.404	6.951	
D: 23/2 ⁻	3.143	3.456	3.795	4.159	4.547	4.961	5.400	5.864	6.353	6.867	a
¹¹⁷ Sb	1.160	1.535	1.871	2.237	2.625	3.058	3.523	4.001	4.555	5.028	
E: 9/2 ⁺	1.171	1.512	1.850	2.252	2.641	3.094	3.526	4.022	4.490	5.025	c
¹¹⁷ Sb	4.425	4.759	5.172	5.572	6.009	-	-	-	-	-	
H: 25/2 ⁺	4.418	4.776	5.161	5.572	6.010	6.475	6.966	7.483	8.027	8.598	a

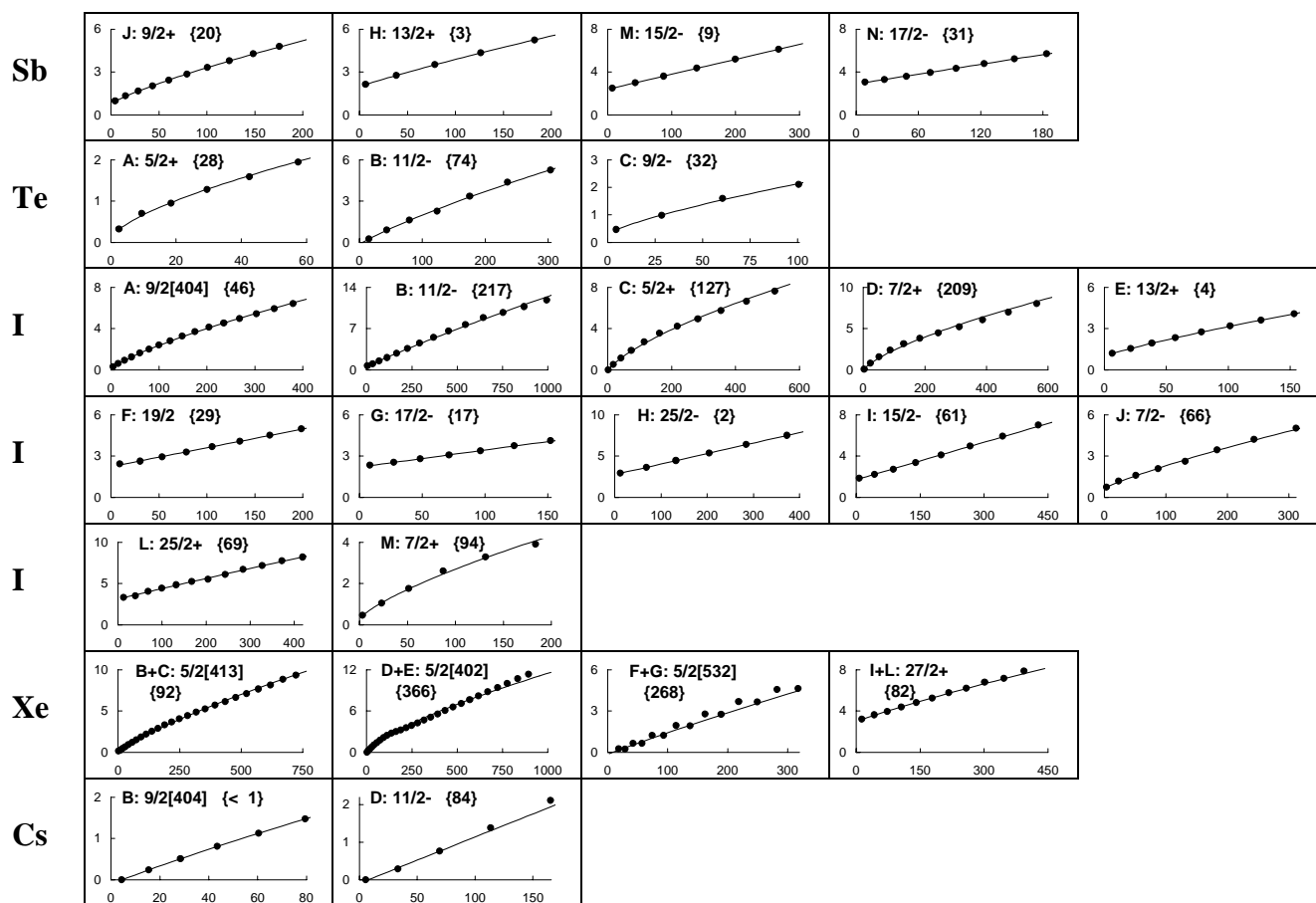
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=117 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹¹⁷ Te A: 5/2 ⁺	0.274 0.285	0.682 0.599	0.930 0.900	1.187 1.207	1.482 1.525	1.789 1.854	- 2.193	- 2.544	- 2.905	- 3.277	c
¹¹⁷ Te B: 7/2 ⁺	0.296 0.302	0.821 0.721	- 1.112	1.416 1.503	- 1.902	- 2.311	- 2.731	- 3.162	- 3.604	- 4.056	
¹¹⁷ Te C: 11/2 ⁻	0.296 0.295	- 0.631	0.967 0.972	- 1.323	1.680 1.686	- 2.062	2.304 2.451	- 2.852	3.348 3.265	- 3.690	x, 59/2 c
¹¹⁷ Te D: 9/2 ⁻	0.373 0.375	- 0.740	1.094 1.070	- 1.394	1.726 1.719	- 2.049	2.344 2.385	- 2.728	- 3.078	- 3.434	x
¹¹⁷ Te F: 25/2 ⁺	3.316 3.328	3.628 3.572	3.828 3.833	4.109 4.113	4.357 4.411	4.619 4.727	5.216 5.060	- 5.412	- 5.782	- 6.170	x a
¹¹⁷ I A: 11/2 ⁻	0.678 0.654	- 0.837	1.015 1.047	- 1.283	1.485 1.545	- 1.831	2.088 2.142	- 2.477	2.820 2.835	- 3.215	
¹¹⁷ I B: 11/2 ⁻	1.341 1.341	1.720 1.722	2.105 2.105	2.502 2.499	2.906 2.905	3.321 3.324	- 3.757	- 4.202	- 4.661	- 5.132	
¹¹⁷ I C: 9/2 ⁺	0.354 0.354	0.654 0.652	0.971 0.974	1.317 1.319	1.684 1.686	2.076 2.074	2.486 2.481	2.912 2.906	3.339 3.348	- 3.808	c
¹¹⁷ I D: 21/2 ⁺	2.314 2.302	- 2.604	2.912 2.932	3.272 3.286	3.667 3.666	4.082 4.073	4.519 4.505	- 4.964	- 5.450	- 5.961	a
¹¹⁷ I E: 9/2 ⁺	0.574 0.573	- 0.889	1.209 1.217	- 1.561	1.934 1.921	- 2.297	2.703 2.689	- 3.095	3.493 3.516	- 3.950	
¹¹⁷ I F: 45/2 ⁺	7.187 7.192	- 7.700	8.232 8.207	- 8.716	9.191 9.227	- 9.743	10.280 10.263	- 10.787	- 11.317	- 11.852	
¹¹⁷ I G: 35/2 ⁺	5.067 4.946	- 5.286	5.508 5.645	- 6.022	6.297 6.417	- 6.831	7.337 7.263	- 7.714	8.330 8.183	- 8.670	a
¹¹⁷ I H: 21/2 ⁺	2.985 2.948	3.186 3.179	3.377 3.431	3.687 3.702	3.973 3.993	4.289 4.305	4.686 4.636	5.003 4.988	- 5.360	- 5.751	a
¹¹⁷ I I: 39/2 ⁻	5.670 5.494	- 6.086	6.279 6.707	7.354 7.356	8.369 8.035	- 8.742	- 9.479	- 10.244	- 11.038	- 11.861	a
¹¹⁷ I J: 11/2 ⁻	1.174 1.180	- 1.379	1.622 1.601	- 1.844	2.108 2.107	- 2.389	2.643 2.689	- 3.005	3.357 3.337	- 3.685	c
¹¹⁷ I K: 7/2 ⁺	0.059 0.059	- 0.384	0.716 0.719	- 1.072	1.450 1.441	- 1.828	2.245 2.232	- 2.651	3.062 3.085	- 3.533	
¹¹⁷ Xe A: 9/2 ⁻	0.313 0.166	0.230 0.328	0.700 0.520	0.631 0.740	1.276 0.988	1.213 1.265	1.972 1.570	1.927 1.902	2.743 2.261	2.748 2.647	47/2 b
¹¹⁷ Xe B: 5/2[402]	0.271 0.271	0.540 0.539	0.818 0.821	1.123 1.120	1.432 1.435	1.768 1.766	- 2.113	- 2.474	- 2.848	- 3.236	
¹¹⁷ Xe C: 5/2[413]	0.263 0.263	- 0.480	0.714 0.719	- 0.977	1.249 1.253	1.555 1.546	1.865 1.855	- 2.178	2.547 2.515	- 2.866	
¹¹⁷ Cs A: 11/2 ⁻	0.0 -0.025	- 0.144	0.307 0.338	- 0.559	0.801 0.805	- 1.078	1.427 1.376	- 1.700	2.149 2.051	- 2.427	x a

A=119

Ohya S., Kitao K. //NDS, 2000, v.89, p.345



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹¹⁹ Sb	0.971	1.341	1.676	2.038	2.419	2.849	3.310	3.785	4.274	4.785	
J: 9/2 ⁺	0.980	1.313	1.669	2.048	2.450	2.873	3.315	3.777	4.256	4.753	
¹¹⁹ Sb	2.138	-	2.769	-	3.506	-	4.342	-	5.244	-	
H: 13/2 ⁺	2.138	2.440	2.770	3.127	3.507	3.911	4.336	4.782	5.248	5.733	
¹¹⁹ Sb	2.505	-	3.003	-	3.608	-	4.353	-	5.191	-	35/2
M: 15/2 ⁻	2.502	2.740	3.005	3.298	3.619	3.968	4.344	4.748	5.179	5.638	
¹¹⁹ Sb	3.069	3.296	3.582	3.940	4.347	4.776	5.232	5.712	-	-	
N: 17/2 ⁻	3.020	3.309	3.628	3.977	4.357	4.768	5.209	5.680	6.181	6.713	a
¹¹⁹ Te	0.320	0.703	0.946	1.281	1.586	1.940	-	-	-	-	
A: 5/2 ⁺	0.328	0.651	0.964	1.285	1.617	1.962	2.319	2.689	3.069	3.461	
¹¹⁹ Te	0.261	-	0.901	-	1.619	-	2.272	-	3.348	-	37/2
B: 11/2 ⁻	0.262	0.559	0.882	1.231	1.604	1.998	2.412	2.846	3.298	3.766	
¹¹⁹ Te	0.468	-	0.980	-	1.599	-	2.102	-	-	-	
C: 9/2 ⁻	0.467	0.731	0.995	1.267	1.547	1.838	2.138	2.448	2.768	3.096	
¹¹⁹ I	0.307	0.601	0.914	1.254	1.615	2.000	2.403	2.825	3.259	3.695	39/2
A: 9/2[404]	0.305	0.607	0.926	1.263	1.618	1.989	2.377	2.781	3.199	3.632	
¹¹⁹ I	0.687	-	1.024	-	1.486	-	2.076	-	2.791	-	63/2
B: 11/2 ⁻	0.665	0.845	1.052	1.284	1.541	1.823	2.128	2.457	2.808	3.181	
¹¹⁹ I	0.0	-	0.536	-	1.152	-	1.884	-	2.714	-	45/2
C: 5/2 ⁺	-0.010	0.269	0.554	0.852	1.166	1.495	1.838	2.194	2.564	2.945	
¹¹⁹ I	0.099	-	0.801	-	1.572	-	2.377	-	3.166	-	47/2
D: 7/2 ⁺	0.100	0.448	0.780	1.116	1.460	1.815	2.181	2.557	2.944	3.341	

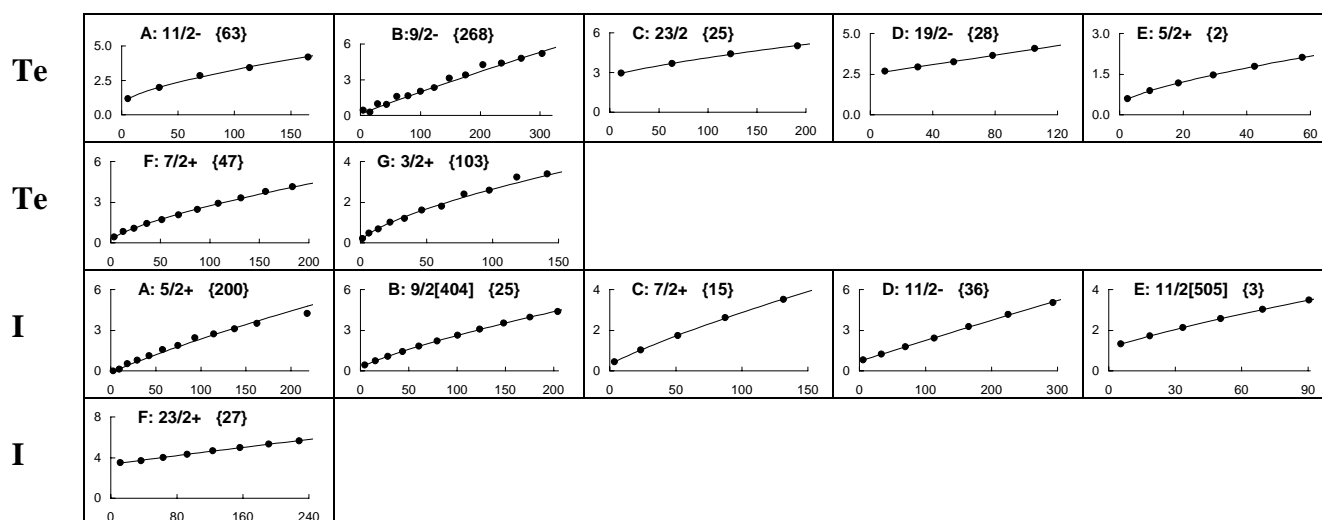
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=119 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{119}I E: $13/2^+$	1.202	1.561	1.934	2.332	2.747	3.181	3.619	4.073	-	-	
^{119}I F: $19/2^-$	2.417	2.620	2.930	3.290	3.673	4.083	4.519	4.976	-	-	a
^{119}I G: $17/2^-$	2.327	2.544	2.789	3.066	3.383	3.736	4.113	(4.518)	(4.945)	-	a
^{119}I H: $25/2^-$	2.928	-	3.633	-	4.449	-	5.366	-	6.381	-	45/2 a
^{119}I I: $15/2^-$	1.851	-	2.224	-	2.723	-	3.345	-	4.096	-	43/2 a
^{119}I J: $7/2^-$	0.732	-	1.169	-	1.582	-	2.074	-	2.606	-	35/2
^{119}I L: $25/2^+$	3.309	3.527	4.064	4.433	4.844	5.250	5.519	6.091	6.694	7.177	47/2
^{119}I M: $7/2^+$	0.462	-	1.045	-	1.753	-	2.604	-	3.290	-	27/2
^{119}Xe B+C: $5/2[413]$	0.169	0.258	0.459	0.672	0.929	1.203	1.508	1.833	2.176	2.536	53/2
^{119}Xe D+E: $5/2[402]$	0.0	0.225	0.484	0.759	1.069	1.397	1.745	2.108	2.457	2.783	63/2
^{119}Xe F+G: $5/2[532]$	-0.096	0.017	0.246	0.541	0.849	1.173	1.514	1.871	2.244	2.633	
^{119}Xe I+L: $27/2^+$	3.214	3.618	3.944	4.375	4.797	5.242	5.758	6.200	6.778	7.145	49/2 c
^{119}Cs B: $9/2[404]$	0.0	0.240	0.510	0.807	1.129	1.472	-	-	-	-	
^{119}Cs D: $11/2^-$	0.0	-	0.288	-	0.762	-	1.381	-	2.111	-	y a

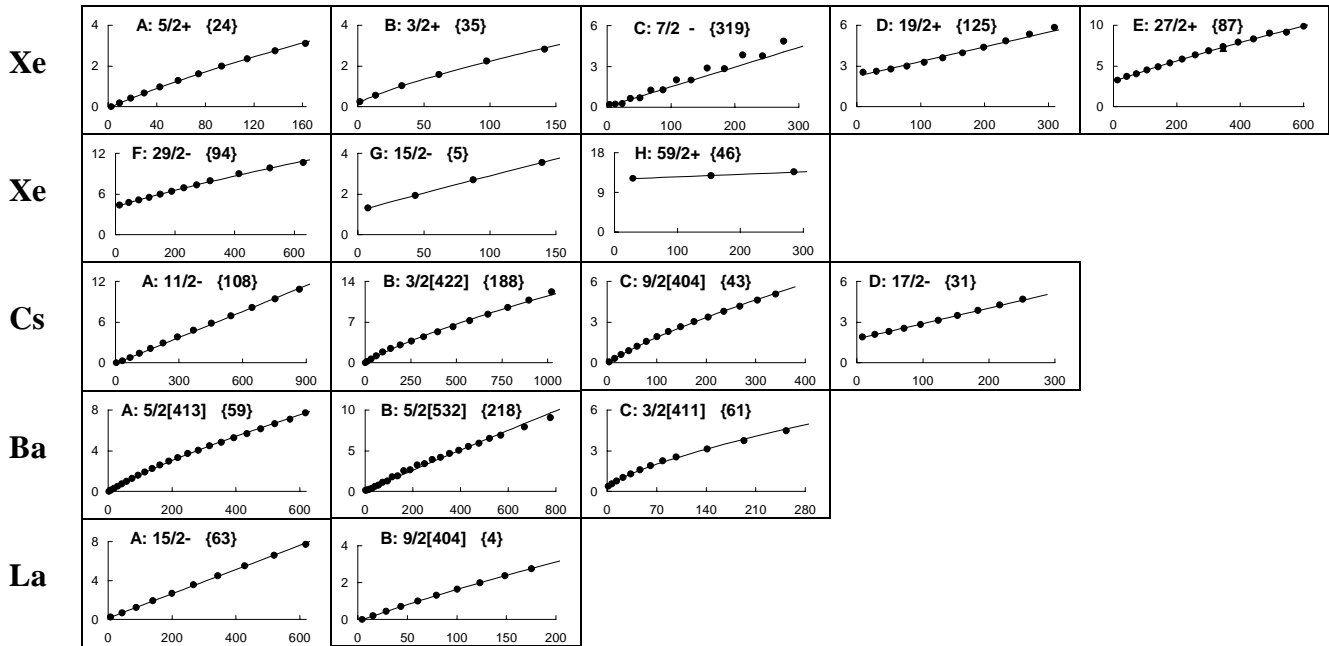
A=121

Tamura T. //NDS, 2000, v.90, p.107



A=121 (continuation)

Tamura T. //NDS, 2000, v.90, p.107



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{121}Te A: $11/2^-$	1.180 1.186	- 1.618	1.995 2.000	- 2.369	2.855 2.736	- 3.105	3.424 3.478	- 3.857	4.188 4.241	- 4.632	
^{121}Te B: $9/2^-$	0.438 0.224	0.294 0.432	0.976 0.674	0.926 0.951	1.600 1.260	1.654 1.602	2.016 1.974	2.332 2.376	3.137 2.807	3.402 3.266	43/2 c
^{121}Te C: $23/2$	2.953 2.950	- 3.336	3.671 3.691	- 4.034	4.411 4.371	- 4.707	5.021 5.043	- 5.381	- 5.721	- 6.064	
^{121}Te D: $19/2^-$	2.680 2.653	2.937 2.957	3.255 3.290	3.643 3.652	4.083 4.043	- 4.463	- 4.912	- 5.390	- 5.896	- 6.432	a
^{121}Te E: $5/2^+$	0.595 0.595	0.888 0.885	1.171 1.174	1.473 1.475	1.789 1.789	2.119 2.116	- 2.457	- 2.811	- 3.176	- 3.553	
^{121}Te F: $7/2^+$	0.443 0.451	0.831 0.774	1.080 1.096	1.419 1.428	1.712 1.772	2.070 2.130	2.470 2.501	2.915 2.885	3.321 3.281	3.779 3.689	27/2
^{121}Te G: $3/2^+$	0.212 0.210	0.475 0.462	0.683 0.721	1.018 0.996	1.208 1.288	1.607 1.595	1.807 1.917	2.396 2.252	2.583 2.600	3.229 2.960	23/2
^{121}I A: $5/2^+$	0.0 -0.024	0.133 0.169	0.529 0.410	0.802 0.695	1.134 1.020	1.575 1.383	1.864 1.781	2.441 2.211	2.729 2.672	3.106 3.161	27/2
^{121}I B: $9/2[404]$	0.434 0.433	0.748 0.748	1.077 1.083	1.435 1.440	1.814 1.816	2.218 2.212	2.642 2.626	3.085 3.057	3.533 3.505	3.966 3.969	29/2
^{121}I C: $7/2^+$	0.445 0.445	- 0.719	1.031 1.031	- 1.378	1.747 1.756	- 2.163	2.622 2.596	- 3.055	3.518 3.536	- 4.040	
^{121}I D: $11/2^-$	0.812 0.810	- 1.010	1.240 1.240	- 1.500	1.781 1.789	- 2.106	2.426 2.453	- 2.827	3.274 3.229	- 3.658	35/2
^{121}I E: $11/2[505]$	1.326 1.326	1.722 1.722	2.132 2.135	2.570 2.568	3.024 3.020	3.487 3.491	- 3.981	- 4.489	- 5.014	- 5.556	
^{121}I F: $23/2^+$	3.511 3.480	3.705 3.745	4.007 4.027	4.322 4.327	4.677 4.644	5.002 4.977	5.338 5.326	5.656 5.691	- 6.071	- 6.465	
^{121}Xe A: $5/2^+$	0.0 -0.003	0.179 0.184	0.414 0.409	0.670 0.667	0.963 0.955	1.282 1.269	1.618 1.609	1.986 1.970	2.356 2.353	2.748 2.755	25/2
^{121}Xe B: $3/2^+$	0.240 0.239	- 0.384	0.561 0.567	- 0.780	1.021 1.021	- 1.285	1.590 1.570	- 1.875	2.245 2.197	- 2.535	23/2

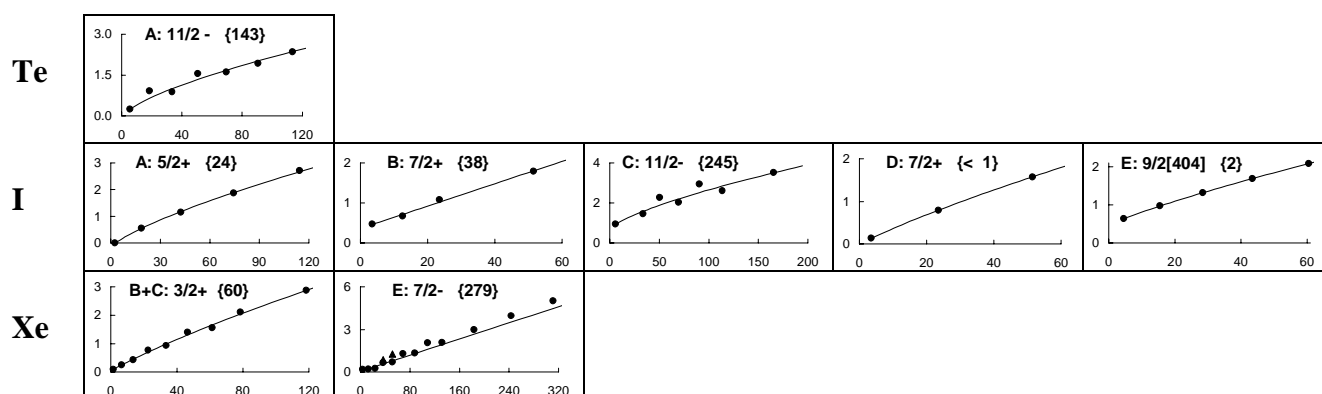
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=121 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹²¹ Xe	0.196	0.235	0.265	0.658	0.687	1.265	1.274	2.015	1.996	2.882	35/2
C: 7/2 ⁻	0.117	0.247	0.406	0.594	0.810	1.056	1.330	1.634	1.966	2.327	c
¹²¹ Xe	2.534	2.623	2.780	2.995	3.268	3.592	3.965	4.383	4.842	5.337	39/2
D: 19/2 ⁺	2.365	2.591	2.839	3.109	3.400	3.712	4.047	4.402	4.780	5.179	a
¹²¹ Xe	3.272	3.720	4.039	4.498	4.901	5.372	5.853	6.344	6.858	7.364	49/2
E: 27/2 ⁺	3.270	3.672	4.086	4.511	4.949	5.398	5.859	6.331	6.814	7.308	c
¹²¹ Xe	4.356	4.734	5.102	5.501	5.979	6.378	6.927	7.353	7.943	-	-
F: 29/2 ⁻	4.321	4.725	5.139	5.562	5.996	6.439	6.893	7.357	7.831	8.314	-
¹²¹ Xe	1.310	-	1.937	-	2.700	-	3.550	-	-	-	-
G: 15/2 ⁻	1.309	1.610	1.941	2.302	2.692	3.110	3.554	4.024	4.519	5.038	-
¹²¹ Xe	12.170	-	12.790	-	13.650	-	-	-	-	-	-
H: 59/2 ⁺	12.140	12.491	12.853	13.227	13.613	14.010	14.418	14.838	15.269	15.712	a
¹²¹ Cs	0.0	-	0.286	-	0.757	-	1.372	-	2.098	-	x, 59/2
A: 11/2 ⁻	-0.034	0.132	0.324	0.541	0.784	1.052	1.346	1.666	2.011	2.382	a
¹²¹ Cs	0.0	-	0.211	-	0.628	-	1.198	-	1.864	-	63/2
B: 3/2[422]	-0.014	0.091	0.232	0.406	0.609	0.839	1.093	1.369	1.667	1.983	-
¹²¹ Cs	0.068	0.314	0.590	0.894	1.221	1.568	1.928	2.295	2.662	3.019	37/2
C: 9/2[404]	0.068	0.323	0.598	0.892	1.204	1.533	1.879	2.239	2.615	3.004	-
¹²¹ Cs	1.889	2.078	2.295	2.544	2.825	3.139	3.482	3.857	4.257	4.684	-
D: 17/2 ⁻	1.857	2.073	2.312	2.573	2.857	3.164	3.494	3.846	4.221	4.619	a
¹²¹ Ba	0.0	0.134	0.304	0.503	0.734	0.990	1.274	1.582	1.905	2.254	49/2
A: 5/2[413]	-0.003	0.137	0.309	0.510	0.737	0.987	1.260	1.552	1.863	2.192	-
¹²¹ Ba	0.139	0.176	0.274	0.372	0.618	0.747	1.134	1.270	1.784	1.912	51/2
B: 5/2[532]	0.108	0.198	0.313	0.454	0.621	0.812	1.029	1.271	1.537	1.828	-
¹²¹ Ba	0.379	0.559	0.775	1.024	1.290	1.598	1.891	2.248	2.535	-	-
C: 3/2[411]	0.373	0.573	0.792	1.031	1.289	1.563	1.853	2.157	2.474	2.803	-
¹²¹ La	0.251	-	0.668	-	1.229	-	1.912	-	2.695	-	x, 51/2
A: 15/2 ⁻	0.248	0.460	0.697	0.959	1.246	1.557	1.894	2.256	2.642	3.054	-
¹²¹ La	0.0	0.204	0.438	0.701	0.990	1.304	1.640	1.996	2.371	2.757	y
B: 9/2[404]	0.0	0.204	0.439	0.701	0.989	1.301	1.637	1.994	2.371	2.767	-

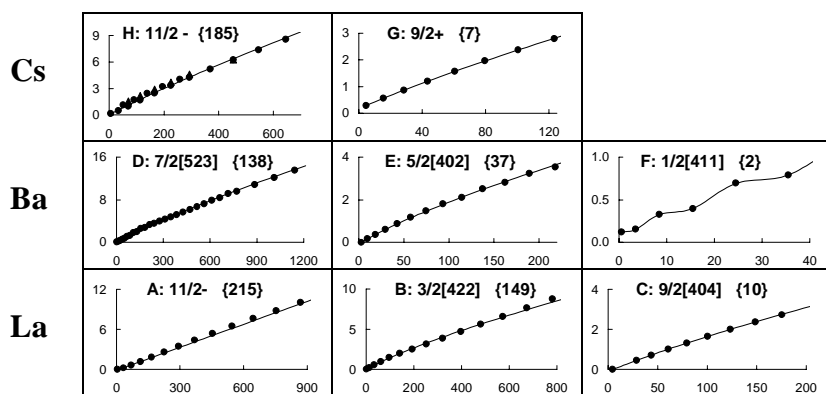
A=123

Ohya S., Tamura T. //NDS, 1993, v.70, p.531



A=123 (continuation)

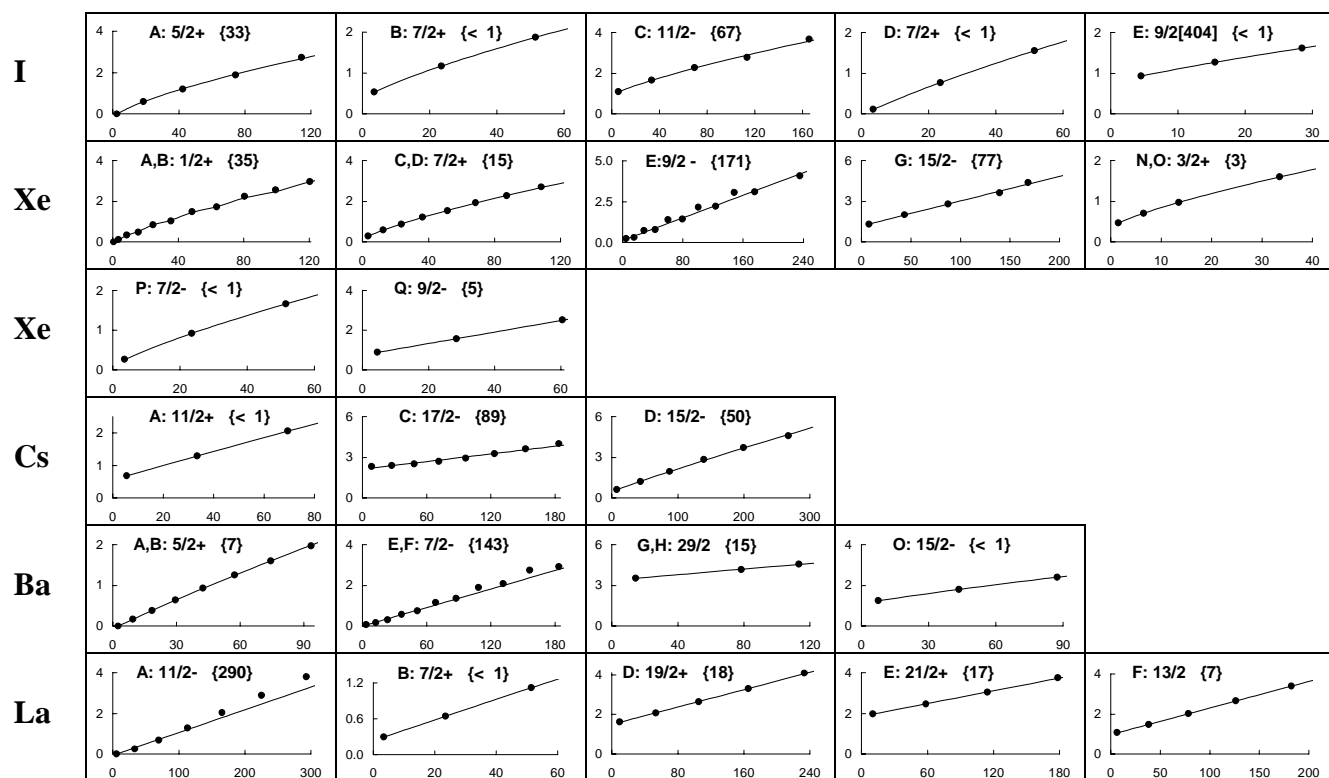
Ohya S., Tamura T. //NDS, 1993, v.70, p.531



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹²³ Te	0.248	0.920	0.886	1.552	1.609	1.929	2.356	-	-	-	
A: 11/2 ⁻	0.257	0.651	1.001	1.340	1.677	2.016	2.360	2.708	3.062	3.421	
¹²³ I	0.0	-	0.552	-	1.156	-	1.872	-	2.712	-	
A: 5/2 ⁺	0.002	0.263	0.546	0.851	1.178	1.524	1.888	2.270	2.667	3.079	
¹²³ I	0.474	0.671	1.080	-	1.791	-	-	-	-	-	
B: 7/2 ⁺	0.463	0.713	1.019	1.381	1.798	2.271	2.799	3.383	4.023	4.718	a
¹²³ I	0.943	-	1.453	2.266	2.040	2.948	2.614	-	3.512	-	
C: 11/2 ⁻	0.936	1.270	1.581	1.889	2.200	2.516	2.838	3.167	3.502	3.844	
¹²³ I	0.138	-	0.794	-	1.577	-	-	-	-	-	
D: 7/2 ⁺	0.138	0.449	0.794	1.171	1.577	2.010	2.468	2.949	3.452	3.976	
¹²³ I	0.641	0.972	1.316	1.690	2.082	-	-	-	-	-	
E: 9/2[404]	0.642	0.970	1.319	1.690	2.081	2.491	2.920	3.367	3.831	4.311	
¹²³ Xe	0.097	0.252	0.437	0.767	0.935	1.398	1.554	2.113	-	2.882	
B+C: 3/2 ⁺	0.097	0.251	0.454	0.702	0.988	1.309	1.661	2.041	2.448	2.879	
¹²³ Xe	0.185	0.206	0.263	0.662	0.719	1.294	1.336	2.063	2.089	-	35/2
E: 7/2 ⁻	0.109	0.237	0.393	0.578	0.791	1.032	1.302	1.600	1.927	2.282	a, c
¹²³ Cs	0.157	-	0.477	1.160	1.000	1.730	1.685	2.437	2.486	3.228	51/2
H: 11/2 ⁻	0.151	0.353	0.583	0.842	1.128	1.440	1.777	2.139	2.525	2.933	c
¹²³ Cs	0.294	0.563	0.867	1.204	1.572	1.961	2.377	2.788	-	-	
G: 9/2 ⁺	0.294	0.565	0.869	1.203	1.566	1.956	2.369	2.806	3.264	3.743	
¹²³ Ba	0.093	0.202	0.336	0.582	0.757	1.136	1.325	1.831	2.020	2.617	
D: 7/2[523]	0.085	0.223	0.390	0.586	0.808	1.057	1.332	1.631	1.954	2.300	
¹²³ Ba	0.0	0.169	0.374	0.613	0.878	1.173	1.483	1.820	2.107	2.518	29/2
E: 5/2[402]	-0.002	0.171	0.377	0.612	0.872	1.155	1.459	1.782	2.123	2.480	
¹²³ Ba	0.121	0.154	0.328	0.398	0.695	0.791	-	-	-	-	
F: 1/2[411]	0.121	0.153	0.329	0.399	0.691	0.792	1.181	1.307	1.775	1.922	
¹²³ La	0.0	-	0.230	-	0.634	-	1.184	-	1.854	-	x, 59/2
A: 11/2 ⁻	-0.047	0.102	0.273	0.468	0.685	0.925	1.189	1.475	1.784	2.116	a, b
¹²³ La	0.035	-	0.224	-	0.550	-	0.988	-	1.488	-	y, 55/2
B: 3/2[422]	0.035	0.117	0.230	0.371	0.538	0.729	0.942	1.176	1.430	1.701	
¹²³ La	0.0	(0.210)	0.448	0.715	1.008	1.321	1.655	2.005	2.365	2.725	z
C: 9/2[404]	-0.001	0.211	0.451	0.716	1.005	1.315	1.646	1.997	2.365	2.751	

A=125

Katakura J. //NDS, 1999, v.86, p.955



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{125}I A: $5/2^+$	0.0 0.002	- 0.293	0.595 0.588	- 0.898	1.204 1.224	- 1.565	1.888 1.921	- 2.291	2.738 2.674	- 3.070	
^{125}I B: $7/2^+$	0.536 0.536	- 0.849	1.173 1.173	- 1.513	1.871 1.871	- 2.246	- 2.636	- 3.042	- 3.463	- 3.898	
^{125}I C: $11/2^-$	1.085 1.088	- 1.367	1.665 1.652	- 1.947	2.278 2.252	- 2.568	2.784 2.895	- 3.232	3.675 3.580	- 3.938	
^{125}I D: $7/2^+$	0.113 0.114	- 0.423	0.768 0.768	- 1.146	1.555 1.555	- 1.991	- 2.453	- 2.939	- 3.448	- 3.978	
^{125}I E: $9/2[404]$	0.936 0.936	1.270 1.270	1.617 1.617	(1.997) 1.981	- 2.361	- 2.759	- 3.173	- 3.602	- 4.046	- 4.504	
^{125}Xe A,B: $1/2^+$	0.0 0.002	0.112 0.108	0.335 0.330	0.484 0.517	0.837 0.833	1.030 1.073	1.481 1.455	1.719 1.734	2.238 2.169	2.551 2.481	21/2
^{125}Xe C,D: $7/2^+$	0.296 0.297	0.597 0.584	0.871 0.887	1.210 1.210	1.536 1.551	1.925 1.910	2.272 2.286	2.704 2.677	- 3.084	- 3.505	
^{125}Xe E: $9/2^-$	0.253 0.208	0.310 0.398	0.737 0.622	0.797 0.881	1.388 1.174	1.441 1.502	2.167 1.865	2.216 2.262	3.055 2.693	3.100 3.160	31/2
^{125}Xe G: $15/2^-$	1.310 1.315	- 1.632	2.006 1.985	- 2.373	2.811 2.796	- 3.254	3.619 3.745	4.383 4.269	- 4.826	- 5.414	
^{125}Xe N,O: $3/2^+$	0.471 0.471	0.708 0.706	0.969 0.974	- 1.272	1.600 1.597	- 1.946	- 2.317	- 2.708	- 3.116	- 3.542	
^{125}Xe P: $7/2^-$	0.266 0.266	- 0.582	0.920 0.920	- 1.279	1.660 1.660	- 2.061	- 2.482	- 2.921	- 3.377	- 3.850	
^{125}Xe Q: $9/2^-$	0.887 0.886	- 1.203	1.573 1.578	- 2.011	2.508 2.502	- 3.050	- 3.656	- 4.319	- 5.041	- 5.820	a

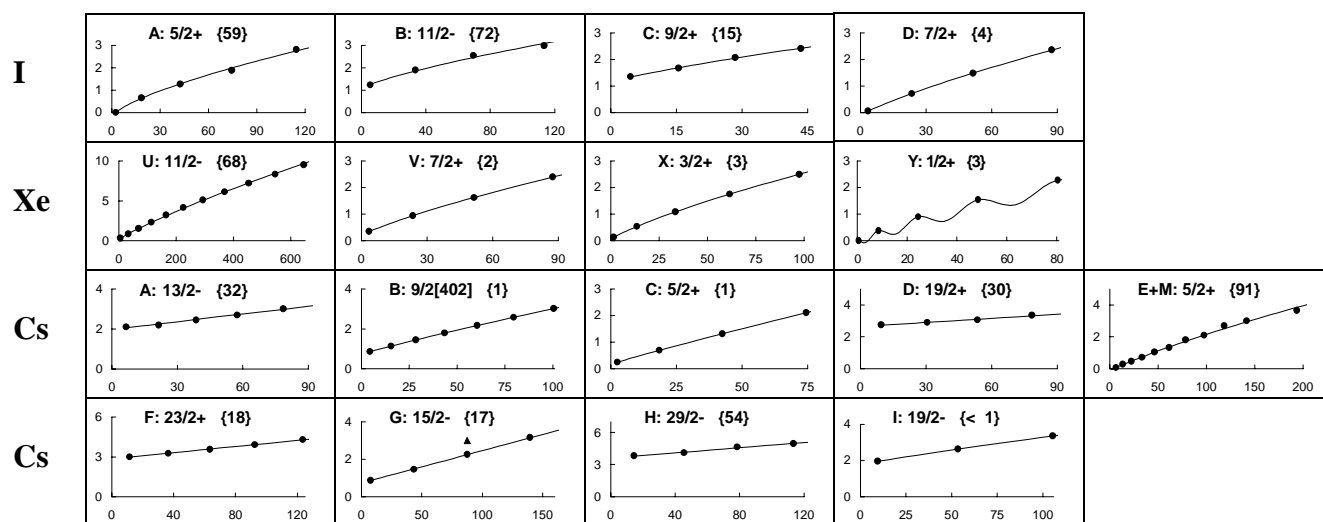
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=125 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹²⁵ Cs	0.683	-	1.294	-	2.055	-	-	-	-	-	
A: 11/2 ⁺	0.683	0.969	1.294	1.656	2.055	2.488	2.954	3.452	3.981	4.539	
¹²⁵ Cs	2.318	2.397	2.518	2.699	2.945	3.257	3.617	4.010	-	-	
C: 17/2 ⁻	2.209	2.388	2.585	2.800	3.035	3.288	3.561	3.851	4.161	4.489	a
¹²⁵ Cs	0.632	-	1.204	-	1.963	-	2.833	-	3.724	-	35/2
D: 15/2 ⁻	0.627	0.917	1.235	1.580	1.952	2.349	2.771	3.216	3.683	4.173	
¹²⁵ Ba	0.0	0.168	0.384	0.639	0.931	1.253	1.603	1.970	-	-	x
A,B: 5/2 ⁺	-0.001	0.170	0.383	0.636	0.925	1.248	1.603	1.987	2.398	2.836	
¹²⁵ Ba	0.067	0.166	0.300	0.572	0.751	1.163	1.354	1.901	2.085	2.747	x, 29/2
E,F: 7/2 ⁻	0.060	0.196	0.363	0.560	0.787	1.045	1.333	1.651	2.000	2.379	a
¹²⁵ Ba	3.532	(3.913)	4.168	4.565	-	-	-	-	-	-	x
G,H: 29/2 ⁻	3.527	3.847	4.188	4.550	4.932	5.335	5.759	6.203	6.668	7.154	a
¹²⁵ Ba	1.242	-	1.803	-	2.402	-	-	-	-	-	
O: 15/2 ⁻	1.242	1.518	1.803	2.097	2.402	2.717	3.042	3.376	3.721	4.075	
¹²⁵ La	0.008	-	0.249	-	0.685	-	1.289	-	2.033	-	x, 35/2
A: 11/2 ⁻	0.008	0.153	0.320	0.510	0.722	0.956	1.213	1.492	1.793	2.116	a
¹²⁵ La	0.296	-	0.643	-	1.120	-	-	-	-	-	x
B: 7/2 ⁺	0.296	0.453	0.643	0.866	1.120	1.405	1.719	2.063	2.434	2.832	
¹²⁵ La	1.615	-	2.074	-	2.631	-	3.300	-	4.078	-	x
D: 19/2 ⁺	1.605	1.834	2.085	2.357	2.651	2.967	3.305	3.665	4.046	4.449	a
¹²⁵ La	1.978	-	2.458	-	3.038	-	3.749	-	-	-	x
E: 21/2 ⁺	1.969	2.210	2.471	2.753	3.056	3.380	3.725	4.090	4.477	4.885	a
¹²⁵ La	1.072	-	1.481	-	2.013	-	2.660	-	3.401	-	x
F: 13/2	1.067	1.266	1.490	1.741	2.019	2.322	2.653	3.009	3.393	3.802	a

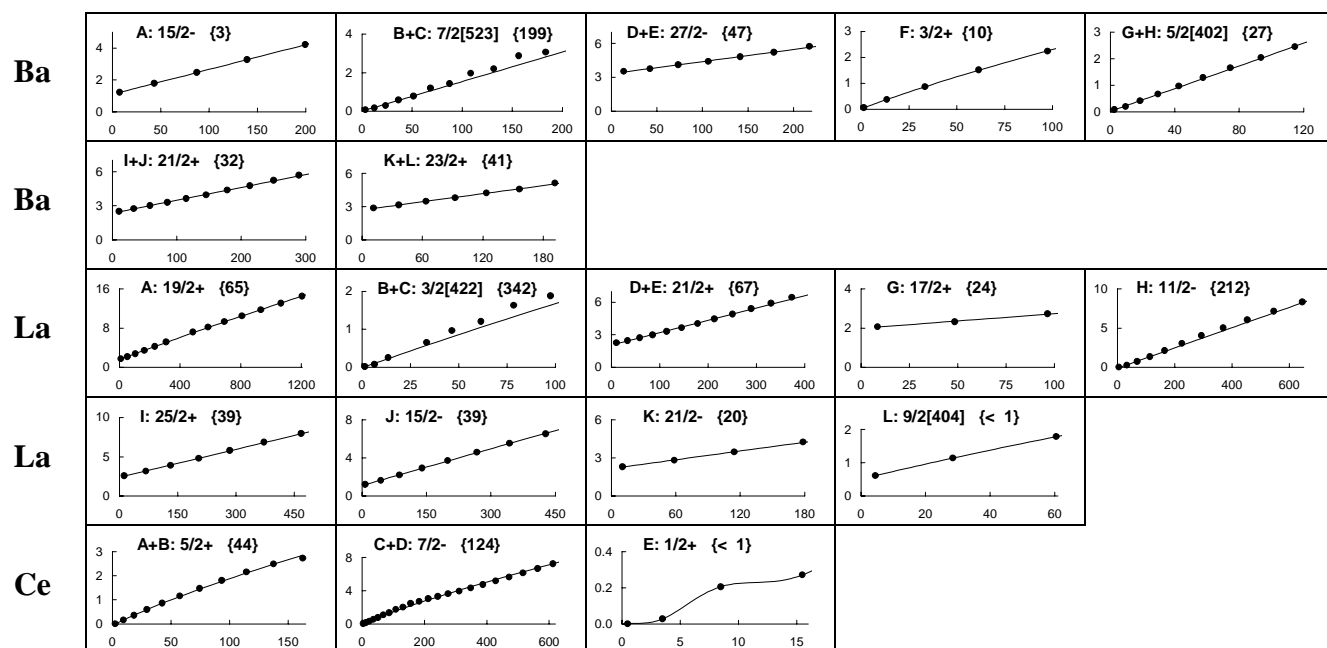
A=127

Kitao K., Oshima M. //NDS, 1996, v.77, p.1



A=127 (continuation)

Kitao K., Oshima M. //NDS, 1996, v.77, p.1



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{127}I A: $5/2^+$	0.0 0.016	- 0.327	0.651 0.634	- 0.952	1.267 1.285	- 1.630	1.877 1.990	- 2.362	2.810 2.747	- 3.144	
^{127}I B: $11/2^-$	1.235 1.253	- 1.561	1.894 1.857	- 2.154	2.546 2.457	- 2.766	2.976 3.082	- 3.406	- 3.738	- 4.077	c
^{127}I C: $9/2^+$	1.350 1.348	1.676 1.690	2.072 2.048	2.412 2.425	- 2.820	- 3.234	- 3.666	- 4.115	- 4.579	- 5.059	
^{127}I D: $7/2^+$	0.058 0.058	- 0.372	0.716 0.715	- 1.087	1.480 1.486	- 1.909	2.360 2.354	- 2.821	- 3.309	- 3.815	
^{127}Xe U: $11/2^-$	0.309 0.306	- 0.566	0.828 0.857	- 1.175	1.509 1.519	- 1.887	2.312 2.279	- 2.693	3.202 3.127	- 3.581	51/2
^{127}Xe V: $7/2^+$	0.342 0.342	- 0.628	0.938 0.938	- 1.270	1.622 1.624	- 1.999	2.395 2.393	- 2.805	- 3.234	- 3.679	c
^{127}Xe X: $3/2^+$	0.125 0.125	- 0.305	0.530 0.530	- 0.791	1.081 1.083	- 1.403	1.752 1.747	- 2.114	2.498 2.501	- 2.907	c
^{127}Xe Y: $1/2^+$	0.0 0.0	- -0.062	0.375 0.375	- 0.254	0.898 0.901	- 0.741	1.541 1.541	- 1.351	2.275 2.271	- 2.057	c
^{127}Cs A: $13/2^-$	2.094 2.054	2.203 2.245	2.440 2.462	2.697 2.705	3.008 2.973	(3.370) 3.266	(3.766) 3.585	- 3.929	- 4.299	- 4.695	a, c
^{127}Cs B: $9/2[402]$	0.854 0.855	1.131 1.129	1.442 1.442	1.788 1.789	2.167 2.169	2.578 2.578	3.018 3.016	- 3.480	- 3.969	- 4.482	
^{127}Cs C: $5/2^+$	0.247 0.246	- 0.441	0.686 0.687	- 0.978	1.316 1.314	- 1.691	2.105 2.106	- 2.557	(2.960) 3.042	- 3.559	
^{127}Cs D: $19/2^+$	2.748 2.729	2.898 2.908	3.061 3.103	3.354 3.316	- 3.546	- 3.792	- 4.056	- 4.337	- 4.634	- 4.949	
^{127}Cs E+M: $5/2^+$	0.066 0.067	0.273 0.251	0.454 0.477	0.707 0.741	1.043 1.038	1.324 1.365	1.802 1.721	2.097 2.102	2.691 2.506	3.002 2.934	27/2

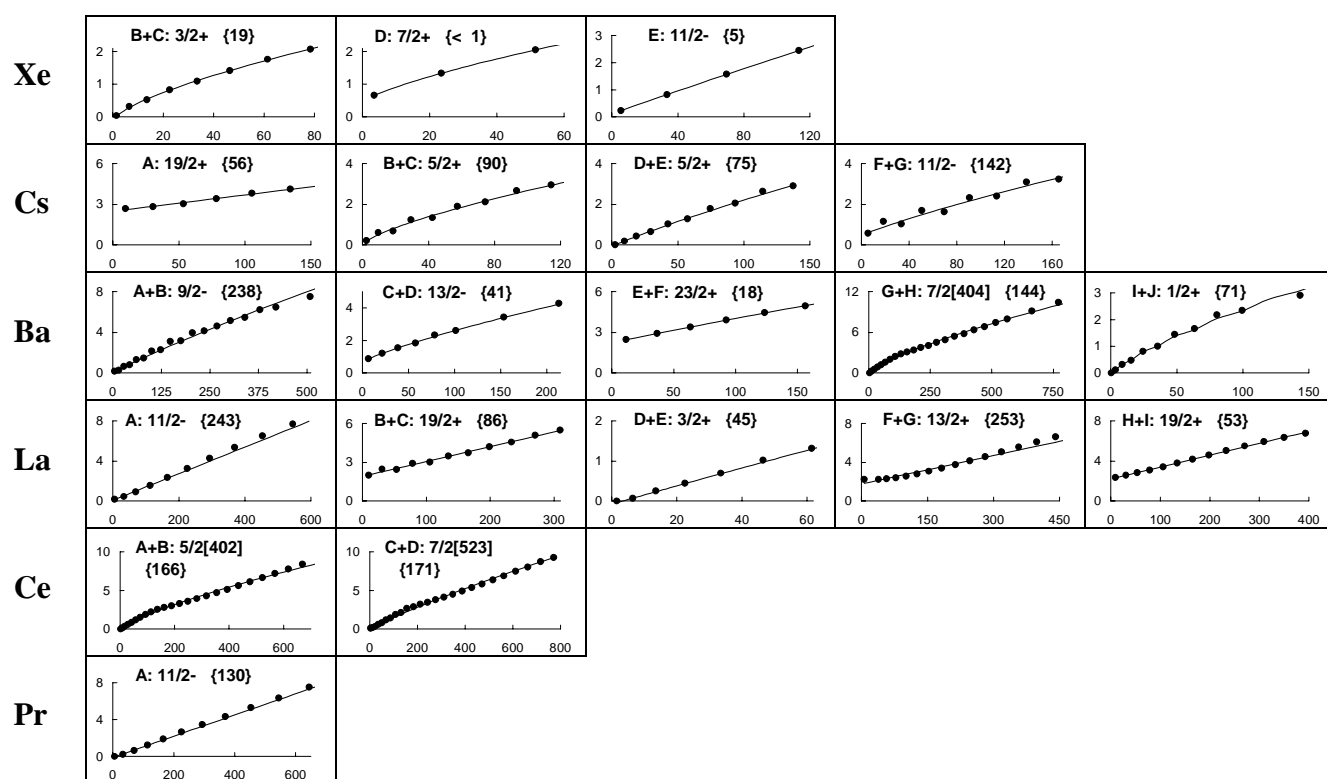
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=127 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹²⁷ Cs F: 25/2 ⁺	3.000 2.984	3.262 3.273	3.564 3.585	3.914 3.921	4.305 4.279	- 4.661	- 5.066	- 5.494	- 5.945	- 6.420	a, c
¹²⁷ Cs G: 15/2 ⁻	0.867 0.861	- 1.155	1.458 1.483	- 1.845	2.258 2.243	- 2.675	3.157 3.141	- 3.642	- 4.177	- 4.747	a, c
¹²⁷ Cs H: 29/2 ⁻	3.816 3.795	4.101 4.166	4.640 4.561	4.954 4.980	(5.535) 5.422	(5.865) 5.889	- 6.379	- 6.894	- 7.432	- 7.994	a
¹²⁷ Cs I: 19/2 ⁻	1.956 1.956	- 2.292	2.639 2.639	- 2.997	3.366 3.366	- 3.746	(4.175) 4.138	- 4.541	(5.187) 4.954	- 5.378	
¹²⁷ Ba A: 15/2 ⁻	1.220 1.219	- 1.484	1.778 1.780	- 2.107	2.464 2.466	- 2.855	3.274 3.276	- 3.728	4.217 4.211	- 4.725	a
¹²⁷ Ba B+C: 7/2[523]	0.080 0.065	0.160 0.203	0.294 0.370	0.580 0.569	0.777 0.798	1.195 1.057	1.422 1.347	1.967 1.667	2.196 2.018	2.869 2.399	27/2 a
¹²⁷ Ba D+E: 27/2 ⁻	3.518 3.470	3.756 3.780	4.102 4.112	4.408 4.465	4.817 4.839	5.214 5.234	5.742 5.651	- 6.089	- 6.549	- 7.030	a
¹²⁷ Ba F: 3/2 ⁺	0.056 0.056	- 0.192	0.375 0.376	- 0.603	0.868 0.869	- 1.170	1.520 1.504	- 1.868	2.244 2.259	- 2.676	b
¹²⁷ Ba G+H: 5/2[402]	0.081 0.077	0.195 0.226	0.416 0.418	0.669 0.653	0.964 0.930	1.291 1.250	1.654 1.613	2.043 2.018	2.452 2.466	- 2.957	a
¹²⁷ Ba I+J: 21/2 ⁺	2.497 2.469	2.737 2.729	2.998 3.011	3.287 3.316	3.622 3.644	3.950 3.994	4.365 4.367	4.746 4.762	5.228 5.180	5.676 5.620	a
¹²⁷ Ba K+L: 23/2 ⁺	2.875 2.847	3.138 3.153	3.482 3.483	3.791 3.838	4.226 4.217	4.579 4.621	5.131 5.049	- 5.501	- 5.978	- 6.480	a
¹²⁷ La A: 19/2 ⁺	1.702 1.666	- 1.911	2.146 2.179	- 2.468	2.723 2.779	- 3.112	3.428 3.465	- 3.840	4.241 4.236	- 4.651	71/2
¹²⁷ La B+C: 3/2[422]	0.015 0.014	0.073 0.104	0.250 0.228	- 0.387	0.654 0.577	0.967 0.799	1.202 1.051	1.631 1.332	1.883 1.639	- 1.973	
¹²⁷ La D+E: 21/2 ⁺	2.252 2.178	2.446 2.439	2.708 2.722	2.972 3.029	3.293 3.358	3.640 3.709	4.027 4.084	4.451 4.481	4.901 4.901	5.392 5.343	43/2 a
¹²⁷ La G: 17/2 ⁺	2.063 2.049	- 2.191	2.314 2.348	- 2.519	2.726 2.706	- 2.908	- 3.124	- 3.356	- 3.602	- 3.864	a
¹²⁷ La H: 11/2 ⁻	0.0 -0.054	- 0.114	0.252 0.308	- 0.528	0.711 0.774	- 1.046	1.342 1.343	- 1.666	2.122 2.016	- 2.391	51/2
¹²⁷ La I: 25/2 ⁺	2.565 2.527	- 2.847	3.156 3.191	- 3.559	3.893 3.950	- 4.366	4.778 4.805	- 5.267	5.786 5.754	- 6.264	49/2 a
¹²⁷ La J: 15/2 ⁻	1.203 1.188	- 1.409	1.630 1.655	- 1.927	2.192 2.225	- 2.548	2.919 2.897	- 3.271	3.710 3.670	- 4.094	43/2
¹²⁷ La K: 21/2 ⁻	2.289 2.276	- 2.542	2.809 2.830	- 3.142	3.462 3.477	- 3.834	4.244 4.215	- 4.619	- 5.046	- 5.496	a
¹²⁷ La L: 9/2[404]	0.611 0.611	- 0.860	1.140 1.140	- 1.449	1.785 1.785	- 2.145	- 2.529	- 2.934	- 3.359	- 3.804	
¹²⁷ Ce A+B: 5/2 ⁺	0.0 -0.007	0.160 0.161	0.359 0.363	0.593 0.595	0.859 0.855	1.155 1.138	1.471 1.445	1.805 1.771	2.152 2.117	2.488 2.481	25/2
¹²⁷ Ce C+D: 7/2 ⁻	0.030 0.029	0.155 0.174	0.318 0.346	0.546 0.545	0.767 0.768	1.087 1.014	1.344 1.282	1.745 1.570	2.020 1.877	2.452 2.202	51/2
¹²⁷ Ce E: 1/2 ⁺	0.0 0.0	0.028 0.028	0.205 0.206	0.272 0.271	- 0.591	- 0.694	- 1.155	- 1.296	- 1.899	- 2.077	x a

A=129

Tendow Y. //NDS, 1996, v.77, p.631



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{129}Xe	0.040	0.322	0.519	0.822	1.089	1.414	1.762	2.065	-	-	
^{129}Xe B+C: $3/2^+$	0.040	0.288	0.545	0.820	1.111	1.418	1.739	2.075	2.423	2.783	
^{129}Xe	0.665	-	1.336	-	2.048	-	-	-	-	-	
^{129}Xe D: $7/2^+$	0.665	0.999	1.336	1.685	2.048	2.427	2.820	3.227	3.648	4.082	
^{129}Xe	0.236	-	0.823	-	1.576	-	2.446	-	-	-	
^{129}Xe E: $11/2^-$	0.236	0.511	0.826	1.178	1.568	1.993	2.452	2.945	3.470	4.026	
^{129}Cs	2.676	2.812	3.042	3.406	3.802	4.130	-	-	-	-	
^{129}Cs A: $19/2^+$	2.603	2.854	3.128	3.427	3.749	4.095	4.465	4.859	5.277	5.719	a
^{129}Cs	0.209	0.603	0.690	1.231	1.339	1.890	2.122	2.667	2.951	-	
^{129}Cs B+C: $5/2^+$	0.213	0.504	0.803	1.118	1.450	1.799	2.164	2.543	2.936	3.343	
^{129}Cs	0.007	0.189	0.426	0.648	1.032	1.279	1.792	2.048	2.632	2.908	25/2
^{129}Cs D+E: $5/2^+$	0.007	0.191	0.418	0.684	0.986	1.320	1.684	2.076	2.493	2.934	
^{129}Cs	0.575	1.150	1.024	1.692	1.628	2.320	2.396	3.096	3.236	-	43/2
^{129}Cs F+G: $11/2^-$	0.606	0.878	1.171	1.483	1.814	2.162	2.527	2.908	3.303	3.712	
^{129}Ba	0.182	0.279	0.644	0.797	1.318	1.475	2.146	2.281	3.094	3.179	45/2
^{129}Ba A+B: $9/2^-$	0.155	0.359	0.598	0.869	1.172	1.506	1.868	2.258	2.675	3.117	
^{129}Ba	0.883	1.210	1.545	1.845	2.337	2.600	-	3.431	-	4.286	43/2
^{129}Ba C+D: $13/2^-$	0.881	1.210	1.547	1.895	2.255	2.626	3.010	3.406	3.813	4.232	
^{129}Ba	2.463	2.914	3.379	3.896	4.459	4.951	-	-	-	-	
^{129}Ba E+F: $23/2^+$	2.461	2.914	3.392	3.896	4.424	4.975	5.548	6.142	6.758	7.394	
^{129}Ba	0.008	0.263	0.545	0.864	1.211	1.590	1.990	2.413	2.816	3.079	55/2
^{129}Ba G+H: $7/2[404]$	0.008	0.279	0.562	0.862	1.179	1.511	1.859	2.221	2.596	2.984	
^{129}Ba	0.0	0.111	0.318	0.467	0.807	0.999	1.438	1.655	2.171	2.340	23/2
^{129}Ba I+J: $1/2^+$	0.011	0.108	0.323	0.492	0.796	1.012	1.377	1.628	2.044	2.324	

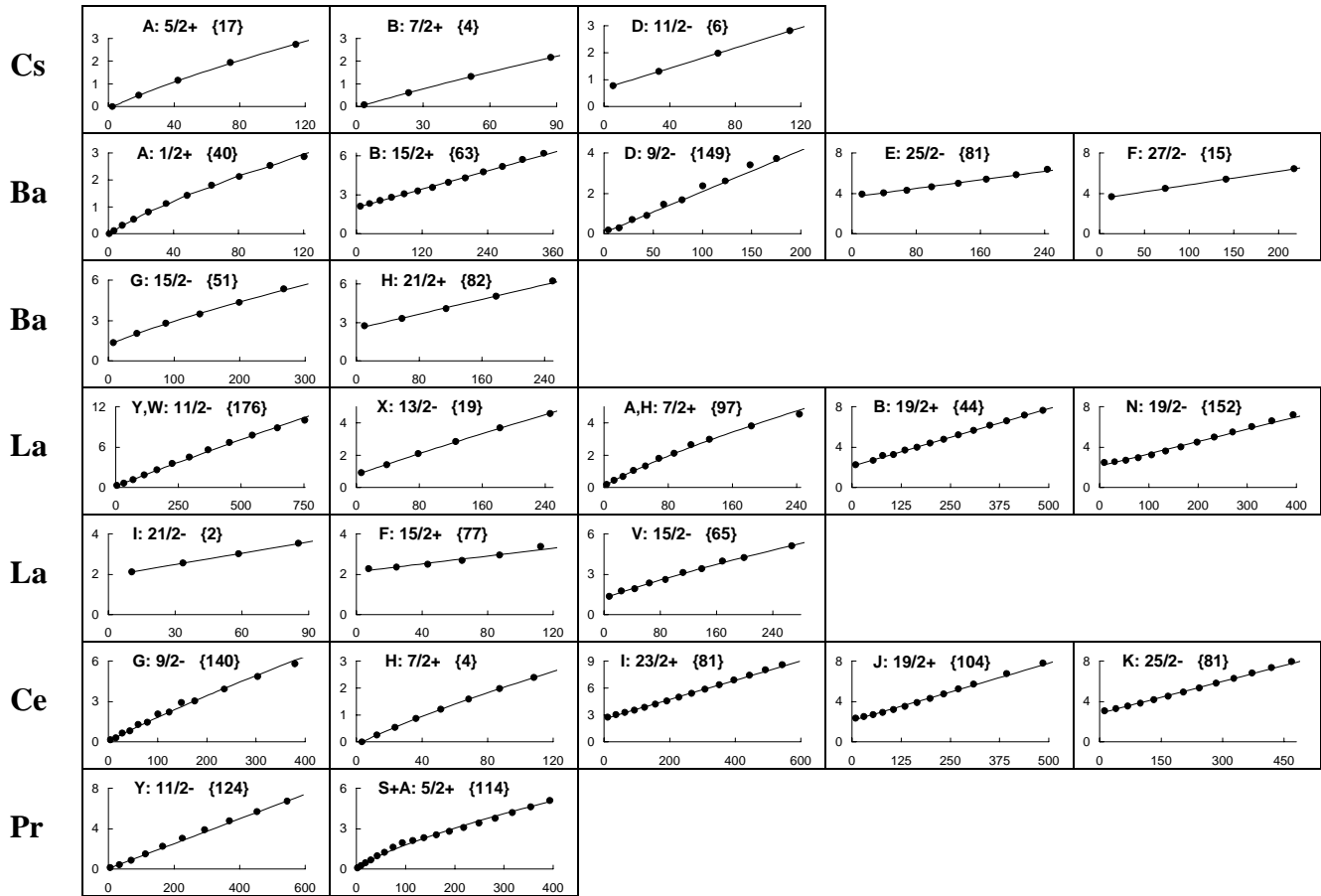
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=129 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹²⁹ La A: 11/2 ⁻	0.172 0.157	- 0.329	0.441 0.528	- 0.753	0.915 1.005	- 1.284	1.556 1.589	- 1.920	2.341 2.278	- 2.663	47/2 a
¹²⁹ La B+C: 19/2 ⁺	1.983 2.031	2.476 2.271	2.429 2.533	2.907 2.819	3.015 3.127	3.473 3.458	3.729 3.812	4.195 4.189	4.552 4.588	5.078 5.011	39/2 a
¹²⁹ La D+E: 3/2 ⁺	0.0 -0.043	0.068 0.073	0.248 0.233	0.445 0.438	0.695 0.684	1.020 0.971	1.314 1.296	- 1.659	2.068 2.056	- 2.488	
¹²⁹ La F+G: 13/2 ⁺	2.217 1.837	- 1.983	2.239 2.148	2.294 2.333	2.405 2.538	2.568 2.762	2.790 3.006	3.066 3.269	3.389 3.551	3.754 3.853	43/2 a
¹²⁹ La H+I: 19/2 ⁺	2.352 2.317	2.568 2.567	2.821 2.841	3.094 3.138	3.418 3.459	3.781 3.803	4.174 4.171	4.599 4.562	5.043 4.977	5.504 5.415	43/2
¹²⁹ Ce A+B: 5/2[402]	0.0 -0.036	0.144 0.151	0.348 0.363	0.589 0.595	0.866 0.847	1.176 1.116	1.513 1.402	1.868 1.702	2.231 2.017	2.534 2.345	51/2
¹²⁹ Ce C+D: 7/2[523]	0.108 0.091	0.190 0.230	0.335 0.397	0.595 0.591	0.805 0.811	1.186 1.056	1.421 1.325	1.906 1.616	2.148 1.929	2.663 2.262	55/2
¹²⁹ Pr A: 11/2 ⁻	0.0 -0.041	- 0.109	0.238 0.281	- 0.477	0.654 0.696	- 0.938	1.215 1.202	- 1.490	1.889 1.801	- 2.135	51/2 a

A=131

Sergeenkov Yu.V., Khazov Yu.L. //NDS, 1994, v.72, p.487



ROTATIONAL BANDS IN ODD-MASS NUCLEI

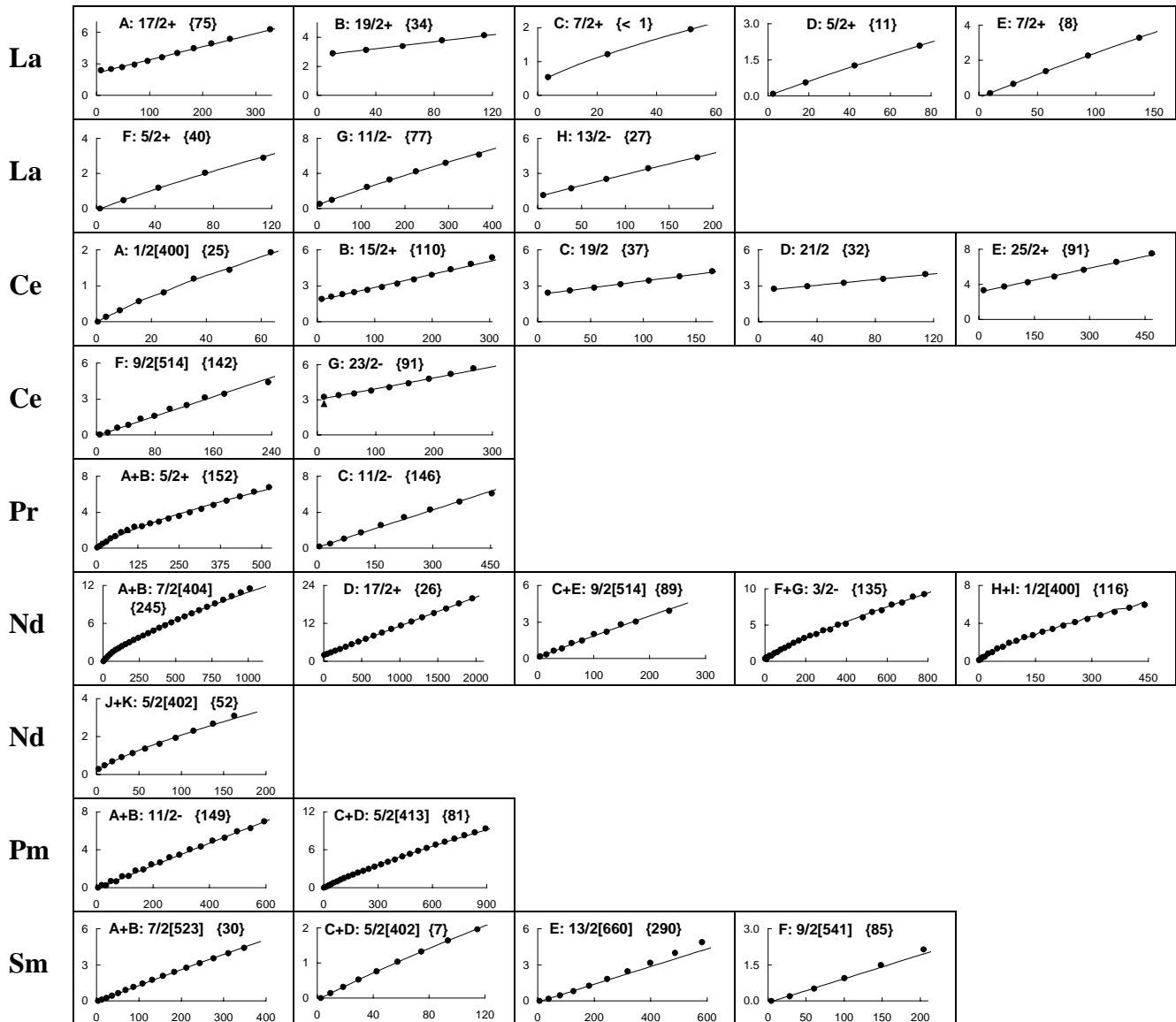
A=131

Sergeenkov Yu.V., Khazov Yu.L. //NDS, 1994, v.72, p.487

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³¹ Cs	0.0	-	0.496	-	1.147	-	1.927	-	2.732	-	
A: 5/2 ⁺	-0.001	0.228	0.498	0.805	1.143	1.510	1.904	2.321	2.761	3.222	
¹³¹ Cs	0.079	-	0.615	-	1.323	-	2.153	-	-	-	
B: 7/2 ⁺	0.079	0.326	0.617	0.948	1.318	1.721	2.158	2.624	3.119	3.641	
¹³¹ Cs	0.775	-	1.309	-	1.972	-	2.815	-	-	-	
D: 11/2 ⁻	0.776	1.021	1.304	1.624	1.982	2.377	2.810	3.280	3.788	4.333	
¹³¹ Ba	0.0	0.108	0.317	0.543	0.803	1.119	1.418	1.796	2.122	2.534	21/2
A: 1/2 ⁺	-0.002	0.111	0.316	0.520	0.815	1.080	1.440	1.750	2.161	2.508	
¹³¹ Ba	2.109	2.320	2.561	2.795	3.057	3.272	3.556	3.941	4.278	4.750	39/2
B: 15/2 ⁺	2.106	2.305	2.528	2.774	3.043	3.336	3.652	3.992	4.355	4.741	a
¹³¹ Ba	0.187	0.287	0.706	0.898	1.458	1.683	2.358	2.611	3.401	3.717	
D: 9/2 ⁻	0.153	0.377	0.641	0.946	1.291	1.677	2.104	2.571	3.079	3.628	a
¹³¹ Ba	3.902	4.046	4.307	4.633	4.975	5.404	5.856	6.365	-	-	
E: 25/2 ⁻	3.784	4.069	4.376	4.703	5.052	5.421	5.812	6.224	6.657	7.111	a
¹³¹ Ba	3.653	-	4.501	-	5.387	-	6.440	-	-	-	
F: 27/2 ⁻	3.657	4.058	4.484	4.935	5.410	5.908	6.430	6.975	7.542	8.131	
¹³¹ Ba	1.349	-	2.045	-	2.795	-	3.477	-	4.338	-	35/2
G: 15/2 ⁻	1.353	1.687	2.032	2.391	2.763	3.149	3.547	3.958	4.382	4.817	
¹³¹ Ba	2.725	-	3.303	-	4.072	-	5.042	-	6.236	-	
H: 21/2 ⁺	2.673	3.001	3.357	3.742	4.155	4.597	5.068	5.566	6.094	6.650	a
¹³¹ La	0.305	-	0.641	-	1.174	-	1.846	-	2.639	-	55/2
Y,W: 11/2 ⁻	0.292	0.480	0.696	0.941	1.212	1.512	1.838	2.191	2.570	2.975	
¹³¹ La	0.907	-	1.411	-	2.091	-	2.848	-	3.682	-	33/2
X: 13/2 ⁻	0.902	1.153	1.433	1.741	2.077	2.439	2.826	3.237	3.672	4.130	
¹³¹ La	0.196	0.440	0.672	1.055	1.329	1.809	2.116	2.641	2.975	-	31/2
A,H: 7/2 ⁺	0.194	0.439	0.717	1.025	1.359	1.718	2.100	2.503	2.926	3.368	
¹³¹ La	2.235	-	2.680	3.146	3.268	3.689	3.974	4.377	4.775	5.211	47/2
B: 19/2 ⁺	2.233	2.472	2.734	3.019	3.327	3.657	4.010	4.386	4.785	5.206	
¹³¹ La	2.477	2.545	2.700	2.936	3.244	3.610	4.024	4.480	4.968	5.490	43/2
N: 19/2 ⁻	2.243	2.498	2.778	3.082	3.410	3.762	4.139	4.540	4.966	5.416	a
¹³¹ La	2.122	2.549	3.019	3.527	-	-	-	-	-	-	
I: 21/2 ⁻	2.121	2.551	3.020	3.525	4.068	4.649	5.267	5.922	6.615	7.345	a
¹³¹ La	2.268	2.346	2.498	2.681	2.942	3.369	-	-	-	-	
F: 15/2 ⁺	2.196	2.362	2.548	2.754	2.979	3.224	3.488	3.772	4.075	4.398	a
¹³¹ La	1.357	1.752	1.933	2.355	2.621	3.119	3.399	3.989	4.231	-	35/2
V: 15/2 ⁻	1.374	1.676	1.996	2.334	2.689	3.060	3.447	3.849	4.265	4.695	
¹³¹ Ce	0.162	0.300	0.637	0.810	1.295	1.452	2.067	2.202	2.912	3.029	39/2
G: 9/2 ⁻	0.150	0.354	0.590	0.858	1.156	1.483	1.836	2.216	2.620	3.048	
¹³¹ Ce	0.0	0.257	0.543	0.866	1.212	1.591	1.976	2.387	-	-	
H: 7/2 ⁺	0.0	0.257	0.546	0.865	1.212	1.583	1.977	2.393	2.829	3.283	
¹³¹ Ce	2.761	3.036	3.272	3.539	3.840	4.177	4.549	4.955	5.390	5.860	51/2
I: 23/2 ⁺	2.705	2.973	3.262	3.573	3.905	4.259	4.633	5.030	5.448	5.887	a
¹³¹ Ce	2.352	2.505	2.685	2.909	3.198	3.522	3.893	4.313	4.745	5.244	47/2
J: 19/2 ⁺	2.219	2.457	2.718	3.002	3.308	3.637	3.988	4.363	4.760	5.179	a
¹³¹ Ce	3.069	3.287	3.544	3.818	4.153	4.511	4.909	5.341	5.797	6.293	49/2
K: 25/2 ⁻	2.972	3.255	3.559	3.885	4.231	4.598	4.986	5.396	5.826	6.277	a
¹³¹ Pr	0.152	-	0.409	-	0.876	-	1.502	-	2.243	-	47/2
Y: 11/2 ⁻	0.142	0.301	0.485	0.693	0.925	1.182	1.464	1.770	2.100	2.455	a
¹³¹ Pr	0.088	0.251	0.448	0.679	0.979	1.240	1.617	1.950	2.118	2.328	39/2
S+A: 5/2 ⁺	0.086	0.270	0.472	0.690	0.924	1.173	1.436	1.711	1.997	2.295	

A=133

Rab S. //NDS, 1995, v.75, p.491



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³³ La A: 17/2 ⁺	2.368 2.249	2.504 2.486	2.682 2.748	2.928 3.034	3.259 3.346	3.615 3.682	4.031 4.044	4.475 4.430	4.938 4.841	5.352 5.277	39/2 a
¹³³ La B: 19/2 ⁺	2.894 2.860	3.111 3.136	3.382 3.436	3.779 3.759	4.134 4.107	- 4.479	- 4.874	- 5.294	- 5.737	- 6.205	- a, c
¹³³ La C: 7/2 ⁺	0.541 0.541	- 0.877	1.220 1.220	- 1.579	1.954 1.954	- 2.346	- 2.755	- 3.179	- 3.617	- 4.070	-
¹³³ La D: 5/2 ⁺	0.088 0.088	- 0.301	0.563 0.567	- 0.883	1.261 1.244	- 1.648	2.076 2.090	- 2.570	- 3.083	- 3.629	-
¹³³ La E: 7/2 ⁺	0.131 0.131	- 0.370	0.655 0.658	- 0.992	1.378 1.371	- 1.792	2.262 2.254	- 2.753	3.277 3.290	- 3.861	-
¹³³ La F: 5/2 ⁺	0.0 -0.004	- 0.215	0.477 0.486	- 0.803	1.189 1.162	- 1.560	2.040 1.993	- 2.459	2.885 2.955	- 3.481	-
¹³³ La G: 11/2 ⁻	0.536 0.527	- 0.760	0.980 1.026	- 1.323	- 1.649	- 2.004	2.450 2.386	- 2.794	3.292 3.228	- 3.686	39/2
¹³³ La H: 13/2 ⁻	1.153 1.148	- 1.438	1.738 1.763	- 2.123	2.535 2.515	- 2.940	3.431 3.395	- 3.881	4.359 4.395	- 4.937	-

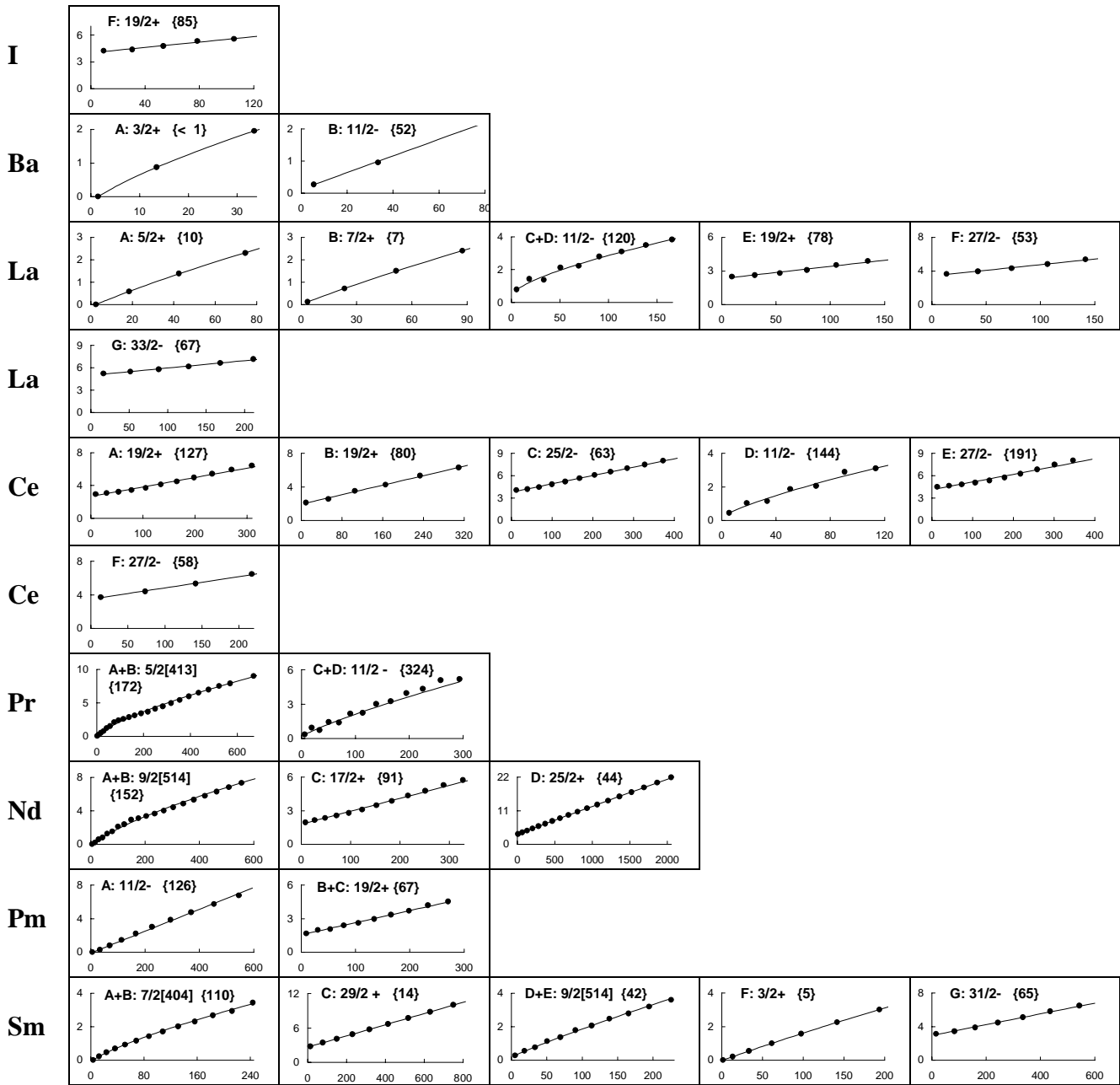
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=133 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³³ Ce	0.0	0.134	0.318	0.571	0.816	1.201	1.445	1.932	-	-	
A: 1/2[400]	0.0	0.135	0.312	0.570	0.831	1.171	1.493	1.895	2.266	2.718	
¹³³ Ce	1.897	2.096	2.297	2.456	2.646	2.881	3.175	3.533	3.917	4.375	37/2
B: 15/2 ⁺	1.858	2.044	2.251	2.480	2.731	3.004	3.298	3.614	3.952	4.312	a
¹³³ Ce	2.416	2.621	2.845	3.128	3.434	3.779	4.211	-	-	-	
C: 19/2	2.384	2.620	2.878	3.159	3.462	3.788	4.136	4.506	4.899	5.314	a
¹³³ Ce	2.744	2.959	3.236	3.571	3.971	-	-	-	-	-	
D: 21/2	2.713	2.981	3.272	3.587	3.925	4.286	4.671	5.078	5.510	5.964	a
¹³³ Ce	3.333	-	3.756	-	4.245	-	4.888	-	5.656	-	49/2
E: 25/2 ⁺	3.258	3.501	3.762	4.041	4.338	4.653	4.987	5.338	5.707	6.094	a
¹³³ Ce	0.037	0.207	0.592	0.827	1.343	1.590	2.199	2.486	3.129	3.433	31/2
F: 9/2[514]	0.036	0.259	0.522	0.826	1.170	1.555	1.981	2.447	2.953	3.500	a
¹³³ Ce	3.236	3.376	3.530	3.771	4.066	4.408	4.799	5.215	5.669	-	
G: 23/2 ⁻	3.116	3.350	3.602	3.873	4.163	4.472	4.799	5.145	5.509	5.893	a, c
¹³³ Pr	0.062	0.226	0.476	0.702	1.081	1.326	1.789	1.993	2.357	2.445	45/2
A+B: 5/2 ⁺	0.060	0.260	0.477	0.712	0.964	1.231	1.513	1.808	2.115	2.435	c
¹³³ Pr	0.192	-	0.502	-	1.054	-	1.763	-	2.576	-	43/2
C: 11/2 ⁻	0.184	0.364	0.571	0.806	1.069	1.360	1.678	2.024	2.398	2.799	a
¹³³ Nd	0.0	0.245	0.519	0.826	1.151	1.492	1.799	2.089	2.384	2.693	67/2
A+B: 7/2[404]	-0.010	0.253	0.521	0.801	1.093	1.399	1.716	2.046	2.387	2.739	
¹³³ Nd	2.027	-	2.371	-	2.812	-	3.326	-	3.930	-	89/2
D: 17/2 ⁺	2.004	2.183	2.379	2.595	2.829	3.082	3.353	3.643	3.951	4.278	s
¹³³ Nd	0.176	0.339	0.647	0.837	1.271	1.461	2.011	2.200	2.814	3.028	31/2
C+E: 9/2[514]	0.170	0.373	0.609	0.878	1.177	1.507	1.866	2.253	2.665	3.104	
¹³³ Nd	0.354	0.524	0.492	0.759	0.808	1.117	1.280	1.599	1.871	2.186	59/2
F+G: 3/2 ⁻	0.358	0.444	0.562	0.710	0.886	1.087	1.313	1.561	1.831	2.120	b
¹³³ Nd	0.128	0.173	0.398	0.492	0.825	0.963	1.360	1.541	1.963	2.160	41/2
H+I: 1/2[400]	0.126	0.179	0.412	0.501	0.825	0.937	1.325	1.454	1.893	2.037	
¹³³ Nd	0.291	0.484	0.688	0.913	1.131	1.365	1.623	1.935	2.312	2.675	25/2
J+K: 5/2[402]	0.296	0.472	0.674	0.898	1.144	1.408	1.688	1.985	2.296	2.620	
¹³³ Pm	0.0	0.280	0.252	0.690	0.682	1.205	1.254	1.799	1.929	2.470	51/2
A+B: 11/2 ⁻	0.012	0.169	0.350	0.555	0.784	1.036	1.312	1.612	1.934	2.280	
¹³³ Pm	0.0	0.084	0.214	0.381	0.571	0.802	1.024	1.294	1.533	1.830	x, 59/2
C+D: 5/2[413]	-0.018	0.087	0.220	0.378	0.561	0.765	0.991	1.237	1.502	1.784	
¹³³ Sm	0.0	0.100	0.246	0.437	0.647	0.896	1.152	1.444	1.738	2.067	y, 37/2
A+B: 7/2[523]	-0.022	0.103	0.256	0.435	0.640	0.871	1.127	1.407	1.712	2.039	
¹³³ Sm	0.0	0.139	0.314	0.523	0.762	1.031	1.326	1.639	1.954	-	x
C+D: 5/2[402]	-0.001	0.139	0.315	0.523	0.761	1.027	1.319	1.634	1.973	2.332	
¹³³ Sm	0.0	-	0.171	-	0.446	-	0.812	-	1.266	-	z, 49/2
E: 13/2[660]	-0.035	0.075	0.200	0.340	0.494	0.663	0.847	1.045	1.258	1.486	
¹³³ Sm	0.0	-	0.198	-	0.512	-	0.942	-	1.486	-	u, 29/2
F: 9/2[541]	-0.018	0.090	0.218	0.366	0.533	0.720	0.927	1.153	1.399	1.665	

A=135

Sergeenkov Yu.V., Singh B. //NDS, 1998, v.84, p.115



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³⁵ I	4.240	4.378	4.774	5.327	5.575	-	-	-	-	-	
F: 19/2 ⁺	4.165	4.479	4.824	5.198	5.602	6.037	6.501	6.995	7.519	8.073	a
¹³⁵ Ba	0.0	-	0.874	-	1.955	-	-	-	-	-	
A: 3/2 ⁺	0.0	0.409	0.874	1.392	1.955	2.559	3.200	3.875	4.582	5.317	
¹³⁵ Ba	0.268	-	0.951	-	2.003	-	-	-	-	-	
B: 11/2 ⁻	0.266	0.603	0.991	1.430	1.922	2.465	3.060	3.707	4.406	5.156	a
¹³⁵ La	0.0	-	0.584	-	1.386	-	2.304	-	-	-	
A: 5/2 ⁺	-0.001	0.265	0.586	0.957	1.372	1.826	2.317	2.842	3.398	3.983	
¹³⁵ La	0.119	-	0.716	-	1.501	-	2.401	-	-	-	
B: 7/2 ⁺	0.119	0.395	0.718	1.085	1.491	1.933	2.410	2.918	3.456	4.022	
¹³⁵ La	0.786	1.437	1.378	2.122	2.233	2.796	3.106	3.500	3.837	-	
C+D: 11/2 ⁻	0.796	1.222	1.601	1.969	2.336	2.705	3.079	3.458	3.844	4.236	

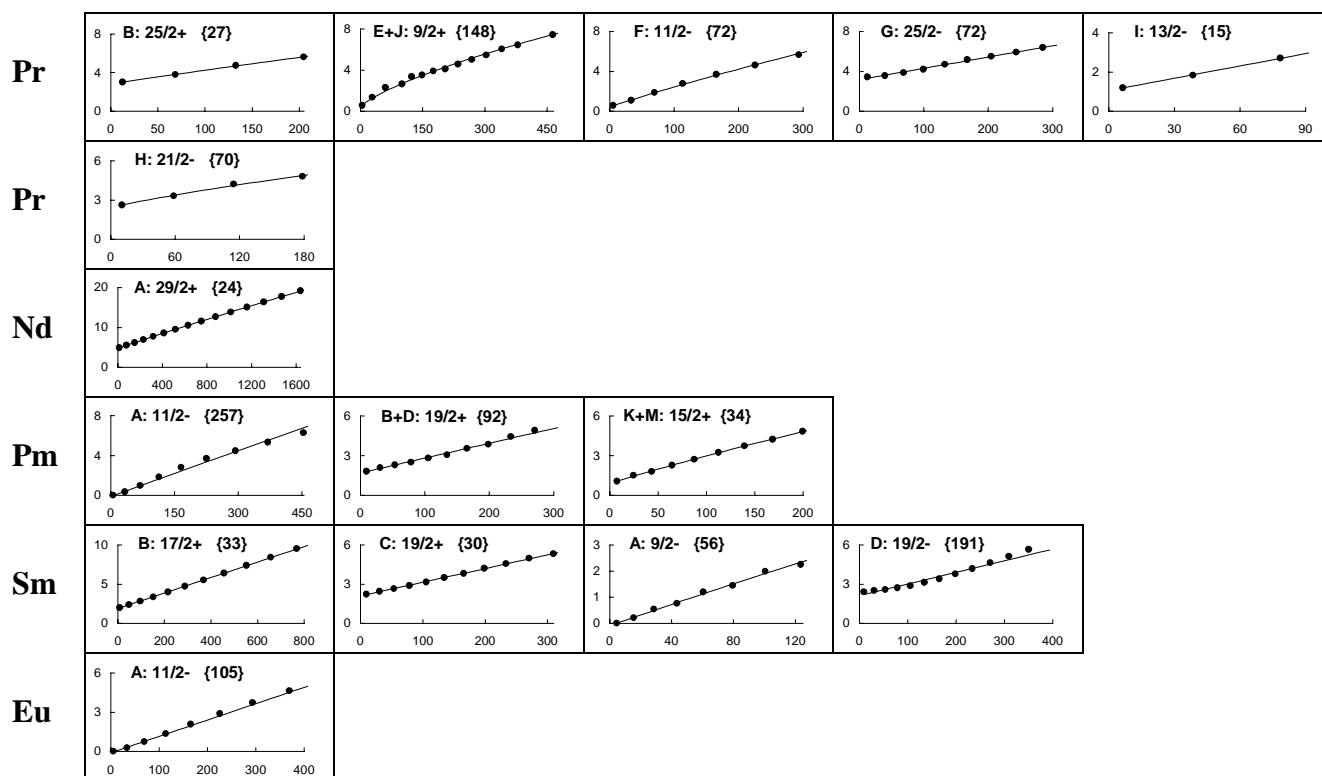
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=135 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³⁵ La E: 19/2 ⁺	2.494 2.413	2.626 2.644	2.811 2.897	3.079 3.172	3.523 3.468	3.891 3.787	- 4.128	- 4.490	- 4.875	- 5.282	a
¹³⁵ La F: 27/2 ⁻	3.639 3.594	3.959 3.982	4.319 4.396	4.821 4.836	5.379 5.304	- 5.798	- 6.319	- 6.867	- 7.441	- 8.042	a
¹³⁵ La G: 33/2 ⁻	5.209 5.136	5.461 5.481	5.772 5.846	6.159 6.230	6.631 6.635	7.160 7.059	- 7.503	- 7.967	- 8.450	- 8.953	a
¹³⁵ Ce A: 19/2 ⁺	2.946 2.774	3.076 3.017	3.229 3.282	3.431 3.571	3.699 3.883	4.128 4.218	4.486 4.576	4.979 4.957	5.428 5.361	5.942 5.788	39/2 a
¹³⁵ Ce B: 19/2 ⁺	2.125 2.065	- 2.363	2.551 2.689	- 3.043	3.515 3.426	- 3.837	4.260 4.276	- 4.744	5.324 5.240	- 5.765	39/2 a
¹³⁵ Ce C: 25/2 ⁻	4.066 3.920	4.183 4.223	4.461 4.548	4.831 4.896	5.206 5.266	5.651 5.659	6.086 6.074	6.526 6.512	6.994 6.972	7.494 7.455	45/2 a
¹³⁵ Ce D: 11/2 ⁻	0.446 0.454	1.036 0.887	1.145 1.314	1.870 1.746	2.052 2.189	2.888 2.644	3.104 3.111	- 3.591	- 4.084	- 4.589	
¹³⁵ Ce E: 27/2 ⁻	4.496 4.260	4.635 4.560	4.813 4.881	5.062 5.223	5.360 5.585	5.752 5.968	6.257 6.371	6.840 6.796	7.470 7.240	8.034 7.706	a
¹³⁵ Ce F: 27/2 ⁻	3.702 3.662	- 4.052	4.400 4.468	- 4.911	5.342 5.381	- 5.878	6.477 6.402	- 6.953	- 7.531	- 8.135	a
¹³⁵ Pr A+B: 5/2[413]	0.041 0.041	0.245 0.277	0.517 0.530	0.777 0.802	1.232 1.092	1.506 1.398	2.117 1.720	2.396 2.056	2.590 2.407	2.847 2.770	51/2
¹³⁵ Pr C+D: 11/2 ⁻	0.358 0.362	0.952 0.641	0.731 0.943	1.433 1.266	1.391 1.608	2.159 1.969	2.245 2.347	3.001 2.742	3.245 3.153	3.957 3.579	35/2
¹³⁵ Nd A+B: 9/2[514]	0.0 -0.085	0.199 0.217	0.561 0.523	0.793 0.838	1.270 1.165	1.520 1.503	2.105 1.854	2.376 2.217	2.941 2.591	3.111 2.976	47/2
¹³⁵ Nd C: 17/2 ⁺	1.954 1.888	2.158 2.108	2.350 2.351	2.558 2.618	2.801 2.907	3.102 3.220	3.471 3.555	3.861 3.914	4.347 4.296	4.772 4.702	39/2 a
¹³⁵ Nd D: 25/2 ⁺	3.324 3.342	- 3.595	3.870 3.866	- 4.156	4.472 4.464	- 4.790	5.148 5.134	- 5.497	5.896 5.877	- 6.275	93/2 s
¹³⁵ Pm A: 11/2 ⁻	0.0 -0.035	- 0.135	0.286 0.330	- 0.552	0.800 0.800	- 1.074	1.458 1.373	- 1.699	2.208 2.051	- 2.429	x, 47/2 a
¹³⁵ Pm B+C: 19/2 ⁺	1.670 1.662	1.993 1.889	2.055 2.137	2.397 2.407	2.612 2.699	2.960 3.012	3.348 3.347	3.700 3.704	4.202 4.082	4.536 4.481	x a
¹³⁵ Sm A+B: 7/2[404]	0.0 0.015	0.221 0.220	0.458 0.439	0.691 0.675	0.920 0.925	1.162 1.189	1.423 1.467	1.704 1.757	2.007 2.058	2.302 2.371	y, 31/2
¹³⁵ Sm C: 29/2 ⁺	2.816 2.808	- 3.110	3.434 3.431	- 3.772	4.121 4.131	- 4.511	4.894 4.910	- 5.328	5.752 5.766	- 6.223	y, 61/2 b
¹³⁵ Sm D+E: 9/2[514]	0.277 0.298	0.552 0.528	0.765 0.786	1.133 1.069	1.366 1.378	1.789 1.710	2.059 2.064	2.468 2.438	2.789 2.833	3.203 3.246	y, 31/2
¹³⁵ Sm F: 3/2 ⁺	0.0 0.0	- 0.087	0.207 0.206	- 0.359	0.539 0.543	- 0.757	1.000 1.001	- 1.273	1.578 1.572	- 1.897	x, 27/2
¹³⁵ Sm G: 31/2 ⁻	3.131 3.045	- 3.257	3.434 3.482	- 3.719	3.883 3.969	- 4.232	4.453 4.508	- 4.797	5.115 5.098	- 5.413	z, 55/2 a

A=137

Tuli J.K. //NDS, 1994, v.72, p.355



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{137}Pr B: $25/2^+$	3.031 3.025	- 3.411	3.792 3.819	- 4.246	4.735 4.693	- 5.159	5.624 5.643	- 6.146	- 6.665	- 7.201	
^{137}Pr E+J: $9/2^+$	0.562 0.609	- 0.925	1.349 1.253	- 1.594	2.307 1.947	- 2.312	2.644 2.688	3.363 3.076	3.521 3.474	3.904 3.882	43/2
^{137}Pr F: $11/2^-$	0.561 0.553	- 0.825	1.078 1.132	- 1.473	1.871 1.845	- 2.246	2.776 2.677	- 3.134	3.687 3.617	- 4.125	35/2
^{137}Pr G: $25/2^-$	3.440 3.319	3.551 3.623	3.872 3.950	4.213 4.300	4.697 4.672	5.175 5.067	5.515 5.485	5.924 5.925	6.389 6.387	- 6.872	a
^{137}Pr I: $13/2^-$	1.189 1.185	- 1.500	1.837 1.856	- 2.255	2.714 2.696	- 3.179	- 3.704	- 4.271	- 4.880	- 5.530	a
^{137}Pr H: $21/2^-$	2.623 2.615	- 2.992	3.308 3.363	- 3.734	4.222 4.108	- 4.487	4.813 4.872	- 5.263	- 5.661	- 6.065	
^{137}Nd A: $29/2^+$	4.885 4.909	- 5.201	5.520 5.510	- 5.837	6.199 6.181	- 6.542	6.941 6.920	- 7.315	7.744 7.726	- 8.154	85/2 s
^{137}Pm A: $11/2^-$	0.0 -0.041	- 0.161	0.338 0.395	- 0.659	0.976 0.954	- 1.279	1.832 1.634	- 2.018	2.800 2.433	- 2.877	43/2
^{137}Pm B+D: $19/2^+$	1.812 1.791	2.088 2.027	2.287 2.285	2.492 2.566	2.819 2.869	3.055 3.194	3.544 3.542	3.859 3.913	4.430 4.306	4.907 4.721	a
^{137}Pm K+M: $15/2^+$	1.057 1.072	1.508 1.441	1.791 1.842	2.271 2.272	2.712 2.729	3.234 3.213	3.733 3.721	4.222 4.254	4.842 4.809	- 5.386	
^{137}Sm B: $17/2^+$	1.996 1.975	- 2.162	2.375 2.369	- 2.597	2.826 2.843	- 3.110	3.365 3.396	- 3.702	3.994 4.028	- 4.373	57/2 a
^{137}Sm C: $19/2^+$	2.228 2.201	2.440 2.421	2.647 2.661	2.881 2.922	3.157 3.204	3.492 3.508	3.817 3.831	4.215 4.176	4.569 4.542	4.974 4.929	39/2 a
^{137}Sm A: $9/2^-$	0.0 -0.006	0.209 0.223	0.541 0.489	0.765 0.792	1.203 1.130	1.449 1.501	1.987 1.903	2.254 2.336	- 2.798	- 3.288	
^{137}Sm D: $19/2^-$	2.407 2.211	2.511 2.398	2.588 2.602	2.713 2.824	2.872 3.064	3.127 3.321	3.408 3.596	3.784 3.890	4.184 4.200	4.645 4.529	41/2 a

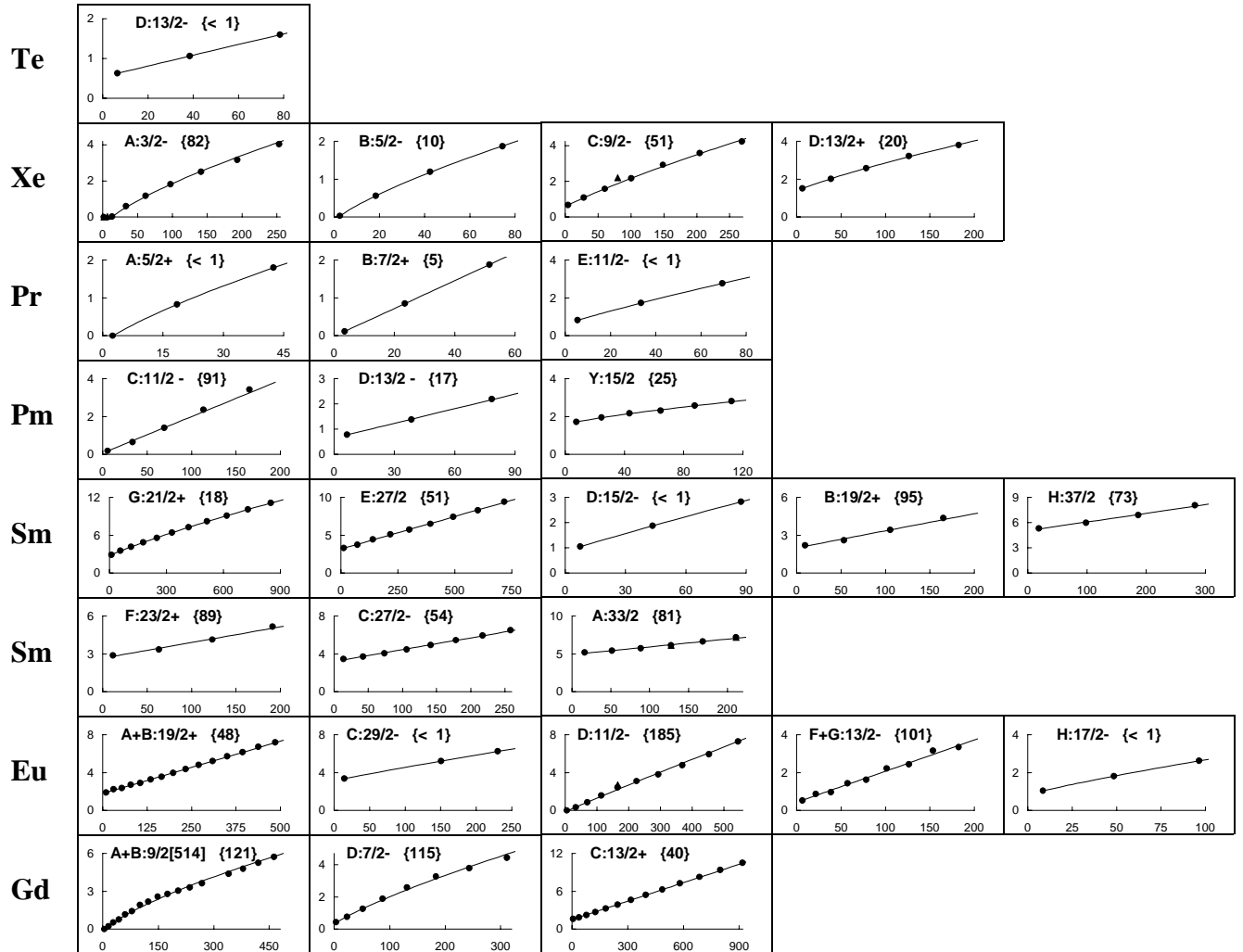
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=137 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³⁷ Eu	0.0	-	0.273	-	0.742	-	1.354	-	2.076	-	39/2
A: 11/2 ⁻	-0.036	0.127	0.314	0.527	0.764	1.027	1.314	1.627	1.965	2.327	a

A=139

Burrows T.W. //NDS, 2001, v.92, p.623



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³⁹ Te	0.627	-	1.064	-	1.599	-	(2.211)	-	-	-	
D: 13/2 ⁻	0.627	0.833	1.064	1.320	1.599	1.902	2.227	2.574	2.943	3.333	
¹³⁹ Xe	0.0	-	0.023	-	0.594	-	1.180	-	1.810	-	31/2
A: 3/2 ⁻	-0.385	-0.197	0.023	0.270	0.540	0.831	1.141	1.468	1.811	2.168	c
¹³⁹ Xe	0.032	-	0.560	-	1.195	-	1.862	-	-	-	
B: 5/2 ⁻	0.032	0.286	0.562	0.861	1.180	1.519	1.876	2.250	2.639	3.044	
¹³⁹ Xe	0.679	-	1.086	-	1.577	-	2.159	-	2.922	-	33/2
C: 9/2 ⁻	0.677	0.870	1.088	1.330	1.592	1.875	2.177	2.496	2.832	3.183	c
¹³⁹ Xe	1.513	-	2.015	-	2.575	-	3.212	-	3.793	-	
D: 13/2 ⁺	1.511	1.762	2.023	2.295	2.578	2.872	3.177	3.493	3.818	4.153	

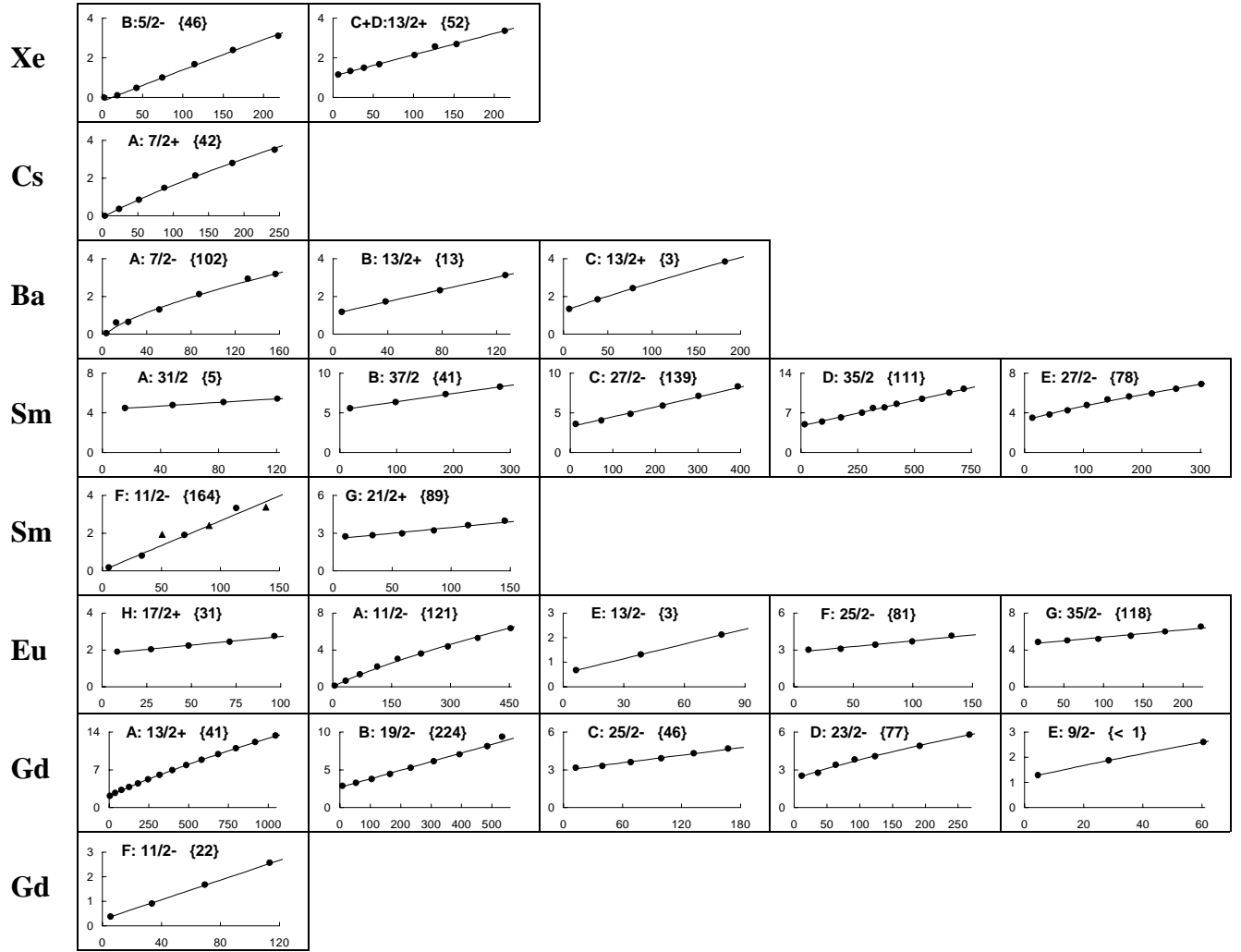
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=139 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹³⁹ Pr	0.0	-	0.828	-	1.790	-	-	-	-	-	
A: 5/2 ⁺	0.0	0.397	0.828	1.293	1.790	2.318	2.873	3.455	4.061	4.690	
¹³⁹ Pr	0.114	-	0.852	-	1.868	-	-	-	-	-	
B: 7/2 ⁺	0.114	0.444	0.848	1.325	1.876	2.500	3.197	3.968	4.812	5.730	a
¹³⁹ Pr	0.822	-	1.722	-	2.761	-	-	-	-	-	
E: 11/2 ⁻	0.822	1.253	1.722	2.225	2.761	3.327	3.922	4.545	5.193	5.867	
¹³⁹ Pm	0.189	-	0.655	-	1.406	-	2.352	-	3.417	-	
C: 11/2 ⁻	0.185	0.434	0.721	1.047	1.412	1.814	2.255	2.734	3.252	3.808	a
¹³⁹ Pm	0.779	-	1.376	-	2.190	-	-	-	-	-	
D: 13/2 ⁻	0.775	1.066	1.394	1.762	2.168	2.613	3.096	3.619	4.180	4.779	a
¹³⁹ Pm	1.715	1.952	2.164	2.302	2.571	2.799	-	-	-	-	
Y: 15/2	1.722	1.936	2.144	2.353	2.565	2.780	3.000	3.224	3.453	3.687	
¹³⁹ Sm	2.909	-	3.518	-	4.164	-	4.844	-	5.579	-	61/2
G: 21/2 ⁺	2.919	3.202	3.502	3.817	4.147	4.491	4.849	5.220	5.604	6.001	
¹³⁹ Sm	3.315	-	3.736	-	4.445	-	5.089	-	5.714	-	59/2
E: 27/2	3.292	3.540	3.806	4.088	4.388	4.705	5.039	5.390	5.758	6.143	a
¹³⁹ Sm	1.047	-	1.870	-	2.820	-	-	-	-	-	
D: 15/2 ⁻	1.047	1.442	1.870	2.330	2.820	3.338	3.884	4.456	5.052	5.672	
¹³⁹ Sm	2.199	-	2.583	-	3.410	-	4.339	-	-	-	
B: 19/2 ⁺	2.128	2.411	2.720	3.057	3.421	3.812	4.230	4.674	5.146	5.644	a
¹³⁹ Sm	5.280	-	5.963	-	6.900	-	8.031	-	-	-	
H: 37/2	5.223	5.624	6.046	6.488	6.950	7.434	7.938	8.462	9.007	9.572	a
¹³⁹ Sm	2.868	-	3.349	-	4.125	-	5.146	-	-	-	
F: 23/2 ⁺	2.807	3.115	3.448	3.805	4.188	4.595	5.026	5.482	5.963	6.469	a
¹³⁹ Sm	3.445	3.710	4.048	4.457	4.930	5.443	5.935	6.495	-	-	
C: 27/2 ⁻	3.368	3.729	4.115	4.526	4.962	5.422	5.908	6.418	6.954	7.514	a
¹³⁹ Sm	5.164	5.407	5.726	6.122	6.616	7.193	-	-	-	-	
A: 33/2	5.076	5.433	5.810	6.208	6.626	7.065	7.524	8.004	8.503	9.024	a, c
¹³⁹ Eu	1.891	2.228	2.345	2.700	2.878	3.267	3.562	3.970	4.352	4.787	47/2
A+B: 19/2 ⁺	1.902	2.133	2.387	2.662	2.960	3.279	3.621	3.984	4.370	4.777	a
¹³⁹ Eu	3.359	-	(4.282)	-	5.212	-	6.223	-	-	-	
C: 29/2 ⁻	3.359	3.801	4.257	4.728	5.212	5.711	6.223	6.748	7.286	7.836	
¹³⁹ Eu	0.0	-	0.323	-	0.877	-	1.589	-	2.694	-	47/2
D: 11/2 ⁻	-0.032	0.153	0.367	0.607	0.875	1.170	1.492	1.840	2.214	2.613	c
¹³⁹ Eu	0.530	0.865	0.969	1.438	1.623	2.213	2.432	3.142	3.339	-	
F+G: 13/2 ⁻	0.539	0.785	1.064	1.376	1.721	2.099	2.509	2.952	3.429	3.938	a
¹³⁹ Eu	1.040	-	1.812	-	2.612	-	-	-	-	-	
H: 17/2 ⁻	1.040	1.424	1.812	2.207	2.612	3.027	3.452	3.887	4.333	4.790	
¹³⁹ Gd	0.0	0.212	0.530	0.755	1.171	1.416	1.911	2.175	2.577	2.767	43/2
A+B: 9/2[514]	-0.056	0.228	0.508	0.795	1.091	1.396	1.711	2.036	2.370	2.714	
¹³⁹ Gd	0.427	-	0.753	-	1.255	-	1.882	-	2.590	-	35/2
D: 7/2 ⁻	0.419	0.593	0.795	1.020	1.267	1.535	1.820	2.123	2.442	2.776	b
¹³⁹ Gd	1.626	-	1.871	-	2.238	-	2.697	-	3.245	-	61/2
C: 13/2 ⁺	1.574	1.720	1.886	2.071	2.275	2.499	2.742	3.005	3.288	3.590	a, b

A=141

Tuli J.K., Winchell D.F. //NDS, 2001, v.92, p.277

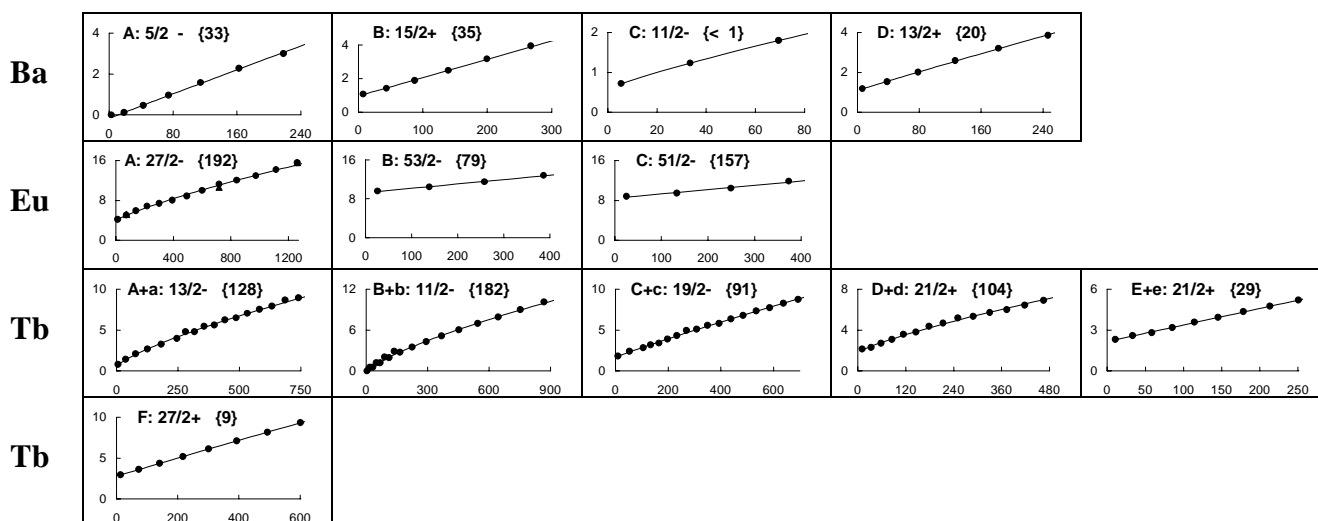


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{141}Xe	0.0	-	0.112	-	0.481	-	0.998	-	1.679	-	29/2
B: $5/2^-$	-0.146	-0.033	0.111	0.287	0.494	0.732	0.999	1.295	1.620	1.972	
^{141}Xe	1.155	1.333	1.494	1.671	(1.973)	2.135	2.575	2.697	-	3.366	
C+D: $13/2^+$	1.155	1.316	1.498	1.702	1.928	2.175	2.443	2.733	3.044	3.376	a
^{141}Cs	0.0	-	0.370	-	0.851	-	1.483	-	2.131	-	31/2
A: $7/2^+$	-0.003	0.171	0.375	0.605	0.859	1.136	1.433	1.750	2.085	2.437	
^{141}Ba	0.055	0.610	0.644	-	1.302	-	2.115	-	2.929	3.175	
A: $7/2^-$	0.055	0.407	0.734	1.061	1.394	1.735	2.086	2.445	2.814	3.192	
^{141}Ba	1.187	-	1.720	-	2.329	-	3.127	-	-	-	
B: $13/2^+$	1.190	1.432	1.706	2.012	2.349	2.717	3.116	3.546	4.005	4.494	
^{141}Ba	1.342	-	1.836	-	2.433	-	-	-	3.834	-	
C: $13/2^+$	1.341	1.579	1.840	2.123	2.428	2.752	3.096	3.457	3.836	4.231	
^{141}Sm	4.482	4.769	5.097	5.434	-	-	-	-	-	-	
A: $31/2$	4.477	4.777	5.095	5.432	5.786	6.159	6.549	6.958	7.385	7.831	a
^{141}Sm	5.577	-	6.351	-	7.376	-	8.284	-	-	-	
B: $37/2$	5.564	5.972	6.400	6.848	7.315	7.802	8.309	8.834	9.379	9.942	
^{141}Sm	3.580	-	4.067	-	4.860	-	5.904	-	7.144	-	47/2
C: $27/2^-$	3.439	3.800	4.186	4.596	5.032	5.492	5.978	6.488	7.023	7.583	a
^{141}Sm	5.002	-	5.459	-	6.207	-	7.049	7.833	7.987	8.558	63/2
D: $35/2$	4.884	5.215	5.565	5.933	6.318	6.722	7.143	7.582	8.040	8.515	a

ROTATIONAL BANDS IN ODD-MASS NUCLEI

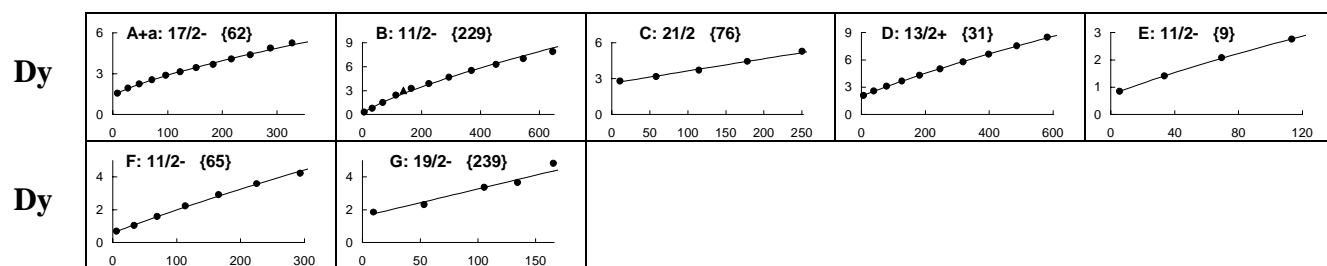
A=141 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁴¹ Sm	3.509	3.819	4.265	4.793	5.341	5.641	5.941	6.414	6.896	-	
E: 27/2 ⁻	3.464	3.902	4.328	4.751	5.173	5.599	6.028	6.461	6.899	7.342	
¹⁴¹ Sm	0.176	-	0.811	-	1.900	-	3.318	-	-	-	
F: 11/2 ⁻	0.173	0.515	0.909	1.355	1.854	2.405	3.009	3.666	4.374	5.136	a, c
¹⁴¹ Sm	2.723	2.823	2.978	3.191	3.624	3.973	-	-	-	-	
G: 21/2 ⁺	2.630	2.838	3.064	3.309	3.571	3.851	4.150	4.466	4.801	5.153	a
¹⁴¹ Eu	1.903	2.031	2.229	2.441	2.750	-	-	-	-	-	
H: 17/2 ⁺	1.875	2.054	2.251	2.468	2.703	2.958	3.231	3.523	3.833	4.163	a
¹⁴¹ Eu	0.096	-	0.623	-	1.345	-	2.177	-	3.024	-	43/2
A: 11/2 ⁻	0.096	0.371	0.666	0.979	1.311	1.660	2.025	2.405	2.800	3.209	
¹⁴¹ Eu	0.672	-	1.309	-	2.117	-	-	-	-	-	
E: 13/2 ⁻	0.672	0.972	1.312	1.693	2.113	2.574	3.075	3.615	4.196	4.817	a
¹⁴¹ Eu	3.009	3.076	3.418	3.684	4.156	-	-	-	-	-	
F: 25/2 ⁻	2.917	3.173	3.447	3.740	4.052	4.383	4.733	5.102	5.489	5.896	a
¹⁴¹ Eu	4.847	5.021	5.192	5.529	5.995	6.539	-	-	-	-	
G: 35/2 ⁻	4.729	5.023	5.333	5.659	6.001	6.358	6.732	7.122	7.527	7.948	a
¹⁴¹ Gd	2.149	-	2.685	-	3.233	-	3.813	-	4.470	-	65/2
A: 13/2 ⁺	2.184	2.400	2.639	2.900	3.182	3.484	3.804	4.142	4.498	4.869	c
¹⁴¹ Gd	2.874	-	3.278	-	3.779	-	4.449	-	5.265	-	49/2
B: 19/2 ⁻	2.779	3.018	3.280	3.564	3.871	4.201	4.554	4.929	5.327	5.748	a
¹⁴¹ Gd	3.148	3.307	3.594	3.915	4.299	4.679	-	-	-	-	
C: 25/2 ⁻	3.084	3.352	3.640	3.948	4.276	4.624	4.992	5.380	5.787	6.215	a
¹⁴¹ Gd	2.516	2.759	3.383	3.808	4.058	-	4.894	-	5.775	-	
D: 23/2 ⁻	2.476	2.890	3.295	3.699	4.105	4.514	4.929	5.350	5.777	6.210	
¹⁴¹ Gd	1.282	-	1.873	-	2.597	-	-	-	-	-	
E: 9/2 ⁻	1.282	1.559	1.873	2.220	2.597	3.003	3.435	3.892	4.373	4.876	
¹⁴¹ Gd	0.378	-	0.907	-	1.671	-	2.561	-	-	-	
F: 11/2 ⁻	0.375	0.635	0.934	1.274	1.654	2.073	2.533	3.032	3.572	4.151	a

A=143
Tuli J.K. //NDS, 2001, v.94, p.605


A=143 (continuation)

Tuli J.K. //NDS, 2001, v.94, p.605

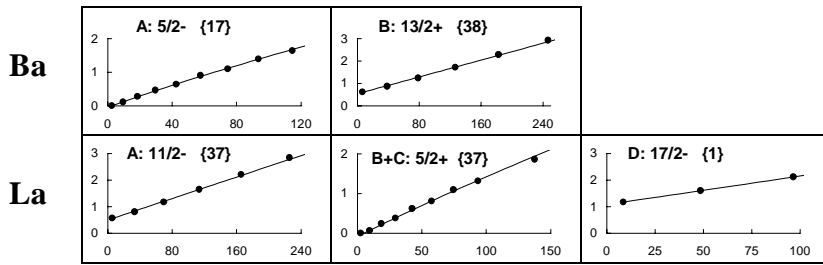


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁴³ Ba A: 5/2 ⁻	0.0 -0.122	- -0.017	0.117 0.117	- 0.280	0.461 0.474	- 0.696	0.954 0.947	- 1.228	1.579 1.537	- 1.875	29/2
¹⁴³ Ba B: 15/2 ⁺	1.067 1.045	- 1.231	1.410 1.438	- 1.667	1.880 1.918	- 2.191	2.473 2.485	- 2.802	3.165 3.140	- 3.500	35/2 a
¹⁴³ Ba C: 11/2 ⁻	0.716 0.716	- 0.968	1.232 1.232	- 1.509	1.800 1.800	- 2.103	- 2.419	- 2.747	- 3.086	- 3.435	
¹⁴³ Ba D: 13/2 ⁺	1.178 1.170	- 1.347	1.525 1.546	- 1.768	2.007 2.010	- 2.274	2.586 2.557	- 2.861	3.201 3.184	- 3.526	33/2
¹⁴³ Eu A: 27/2 ⁻	4.168 4.244	- 4.618	5.052 4.997	- 5.381	5.905 5.772	- 6.171	6.841 6.577	- 6.991	7.389 7.413	- 7.843	75/2 c
¹⁴³ Eu B: 53/2 ⁻	9.568 9.502	- 9.995	10.420 10.506	- 11.034	11.510 11.581	- 12.146	12.820 12.728	- 13.328	- 13.947	- 14.583	a
¹⁴³ Eu C: 51/2 ⁻	8.794 8.667	- 9.123	9.444 9.596	- 10.086	10.440 10.593	- 11.118	11.850 11.659	- 12.218	- 12.794	- 13.387	a
¹⁴³ Tb A+a: 13/2 ⁻	0.788 0.795	- 1.095	1.424 1.398	- 1.709	2.093 2.029	- 2.358	2.689 2.698	- 3.047	3.281 3.406	- 3.774	55/2
¹⁴³ Tb B+b: 11/2 ⁻	0.0 0.046	0.541 0.364	0.521 0.681	1.218 1.005	1.195 1.338	2.026 1.682	1.967 2.036	2.901 2.400	2.745 2.775	- 3.160	59/2
¹⁴³ Tb C+c: 19/2 ⁻	1.812 1.819	- 2.061	2.400 2.322	- 2.603	2.834 2.903	3.200 3.221	3.407 3.557	3.886 3.910	4.332 4.279	4.941 4.665	55/2
¹⁴³ Tb D+d: 21/2 ⁺	2.147 2.062	2.303 2.418	2.706 2.770	3.079 3.122	3.589 3.479	3.798 3.840	4.374 4.207	4.664 4.581	5.161 4.961	5.337 5.348	47/2
¹⁴³ Tb E+e: 21/2 ⁺	2.311 2.288	2.583 2.566	2.796 2.869	3.187 3.195	3.568 3.546	3.920 3.921	4.353 4.321	4.752 4.744	5.191 5.192	- 5.664	a
¹⁴³ Tb F: 27/2 ⁺	2.939 2.939	- 3.261	3.605 3.606	- 3.971	4.352 4.357	- 4.763	5.196 5.191	- 5.638	6.116 6.105	- 6.592	55/2
¹⁴³ Dy A+a: 17/2 ⁻	1.558 1.574	1.942 1.912	2.235 2.228	2.556 2.537	2.874 2.845	3.134 3.155	3.441 3.468	3.677 3.786	4.060 4.107	4.384 4.434	39/2
¹⁴³ Dy B: 11/2 ⁻	0.311 0.303	- 0.601	0.806 0.907	- 1.226	1.529 1.557	- 1.901	2.442 2.257	- 2.626	3.248 3.006	- 3.397	51/2 c
¹⁴³ Dy C: 21/2	2.806 2.739	- 2.973	3.163 3.227	- 3.502	3.714 3.797	- 4.113	4.436 4.449	- 4.805	5.295 5.181	- 5.578	
¹⁴³ Dy D: 13/2 ⁺	2.092 2.109	- 2.321	2.579 2.554	- 2.807	3.104 3.079	- 3.368	3.675 3.674	- 3.997	4.312 4.334	- 4.686	49/2
¹⁴³ Dy E: 11/2 ⁻	0.845 0.845	- 1.121	1.410 1.416	- 1.729	2.074 2.060	- 2.407	2.761 2.770	- 3.149	- 3.542	- 3.948	
¹⁴³ Dy F: 11/2 ⁻	0.694 0.681	- 0.872	1.044 1.088	- 1.327	1.582 1.588	- 1.870	2.232 2.173	- 2.494	2.916 2.834	- 3.191	35/2
¹⁴³ Dy G: 19/2 ⁻	1.850 1.760	- 2.112	2.312 2.496	- 2.914	3.372 3.366	3.651 3.851	4.821 4.370	- 4.922	- 5.507	- 6.126	a

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=145

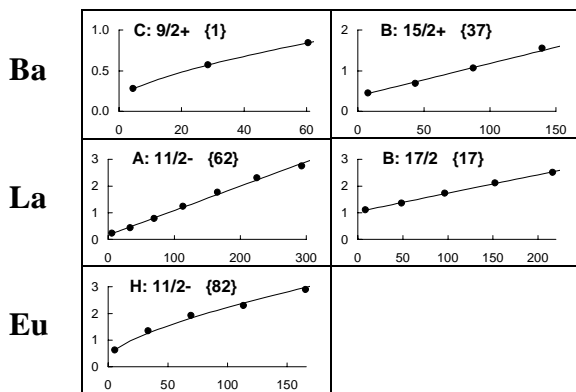
Peker L.K. //NDS, 1993, v.68, p.997



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁴⁵ Ba	0.0	0.113	0.277	0.463	0.641	0.900	1.098	1.394	1.640	-	
A: 5/2 ⁻	-0.003	0.118	0.268	0.446	0.648	0.874	1.120	1.387	1.672	1.974	
¹⁴⁵ Ba	0.617	-	0.866	-	1.240	-	1.718	-	2.283	-	33/2
B: 13/2 ⁺	0.598	0.739	0.898	1.077	1.274	1.490	1.725	1.979	2.251	2.543	a
¹⁴⁵ La	0.572	-	0.805	-	1.171	-	1.647	-	2.210	-	31/2
A: 11/2 ⁻	0.553	0.685	0.837	1.009	1.201	1.414	1.646	1.899	2.173	2.466	a
¹⁴⁵ La	0.0	0.066	0.238	0.380	0.622	0.811	1.095	1.315	-	1.862	
B+C: 5/2 ⁺	-0.041	0.071	0.214	0.385	0.583	0.808	1.057	1.330	1.626	1.943	
¹⁴⁵ La	1.171	-	1.599	-	2.118	-	-	-	-	-	
D: 17/2 ⁻	1.171	1.375	1.601	1.848	2.117	2.407	2.719	3.052	3.407	3.783	a

A=147

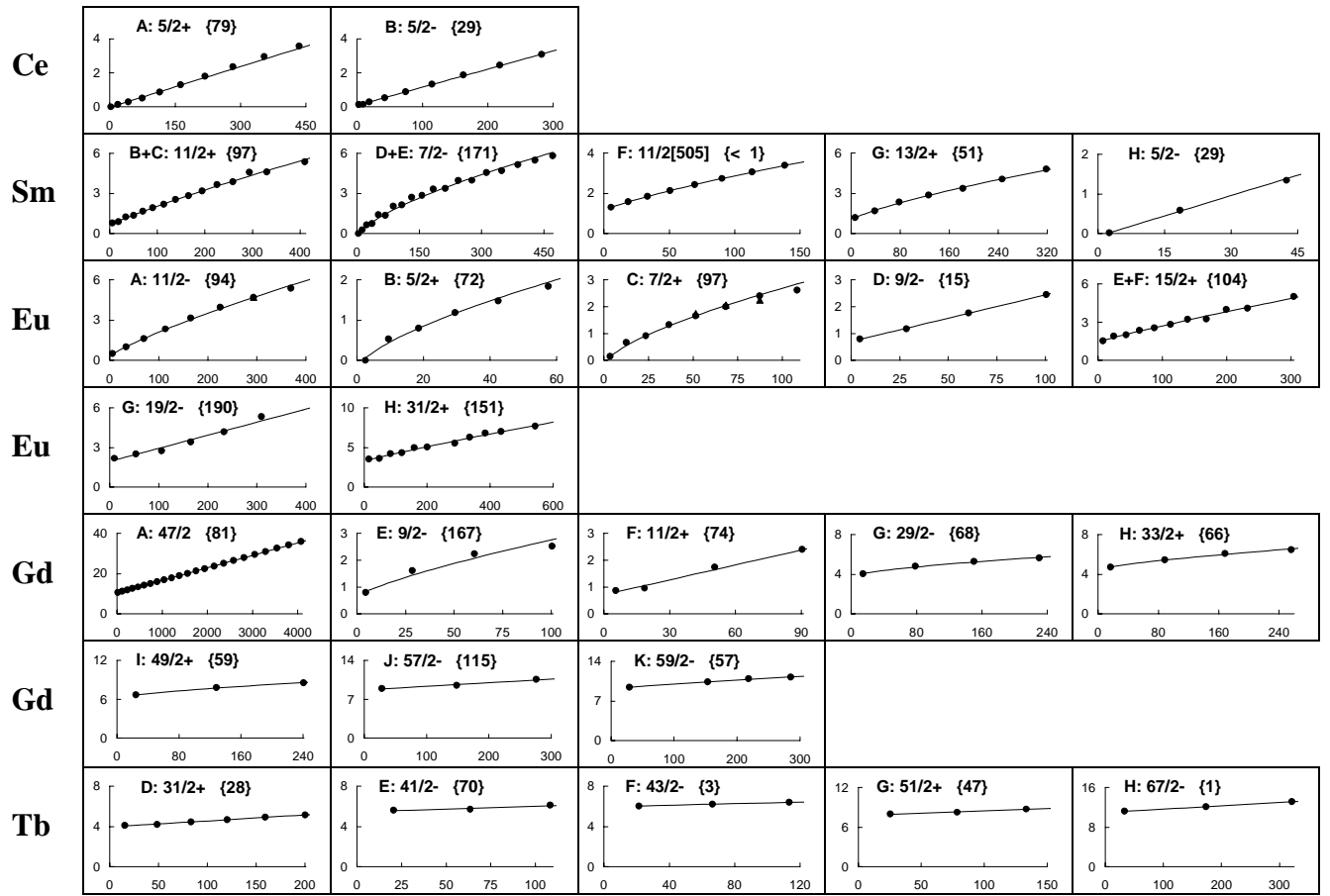
Ter-Mateosian E., Peker L.K. //NDS, 1992, v.66, p.705



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁴⁷ Ba	0.279	-	0.573	-	0.843	-	-	-	-	-	
C: 9/2 ⁺	0.279	0.432	0.571	0.707	0.845	0.984	1.126	1.271	1.418	1.569	
¹⁴⁷ Ba	0.451	-	0.691	-	1.067	-	1.558	-	-	-	
B: 15/2 ⁺	0.439	0.575	0.727	0.895	1.079	1.280	1.496	1.728	1.976	2.240	a
¹⁴⁷ La	0.229	-	0.441	-	0.787	-	1.242	-	1.771	-	35/2
A: 11/2 ⁻	0.221	0.340	0.477	0.632	0.806	0.998	1.208	1.437	1.684	1.949	a
¹⁴⁷ La	1.110	-	1.358	-	1.729	-	2.116	-	2.519	-	
B: 17/2	1.102	1.235	1.381	1.541	1.714	1.900	2.098	2.310	2.534	2.770	
¹⁴⁷ Eu	0.625	-	1.347	-	1.927	-	2.293	-	2.901	-	
H: 11/2 ⁻	0.641	0.971	1.263	1.545	1.826	2.108	2.394	2.684	2.978	3.277	

A=149

Singh B. //NDS, 1994, v.73, p.351



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁴⁹ Ce	0.0	-	0.142	-	0.282	-	0.524	-	0.866	-	41/2
A: 5/2 ⁺	0.002	0.057	0.129	0.217	0.320	0.440	0.575	0.727	0.894	1.077	a
¹⁴⁹ Ce	0.135	0.152	0.281	-	0.533	-	0.890	-	1.341	-	33/2
B: 5/2 ⁻	0.111	0.186	0.282	0.399	0.538	0.698	0.879	1.082	1.306	1.552	a
¹⁴⁹ Sm	0.789	0.879	1.240	1.362	1.670	1.926	2.192	2.537	2.834	3.181	41/2
B+C: 11/2 ⁺	0.759	0.949	1.162	1.396	1.651	1.925	2.217	2.526	2.851	3.192	
¹⁴⁹ Sm	0.0	0.286	0.664	0.748	1.399	1.361	2.041	2.142	2.702	2.843	43/2
D+E: 7/2 ⁻	-0.014	0.295	0.582	0.870	1.164	1.465	1.774	2.091	2.416	2.749	
¹⁴⁹ Sm	1.309	1.575	1.847	2.131	2.427	2.735	3.055	3.384	-	-	
F: 11/2[505]	1.309	1.574	1.847	2.132	2.428	2.735	3.054	3.384	3.725	4.076	
¹⁴⁹ Sm	1.193	-	1.696	-	2.345	-	2.876	-	3.365	-	37/2
G: 13/2 ⁺	1.190	1.461	1.729	2.000	2.276	2.559	2.850	3.147	3.451	3.763	
¹⁴⁹ Sm	0.023	-	0.591	-	1.343	-	-	-	-	-	
H: 5/2 ⁻	0.023	0.262	0.569	0.945	1.389	1.901	2.482	3.131	3.848	4.633	a
¹⁴⁹ Eu	0.496	-	0.995	-	1.610	-	2.336	-	3.144	-	39/2
A: 11/2 ⁻	0.492	0.745	1.020	1.314	1.627	1.957	2.304	2.667	3.045	3.437	
¹⁴⁹ Eu	0.0	0.534	0.799	1.185	1.472	1.834	-	-	-	-	
B: 5/2 ⁺	0.069	0.441	0.799	1.167	1.547	1.941	2.349	2.771	3.205	3.652	
¹⁴⁹ Eu	0.150	0.666	0.911	1.334	1.659	1.999	2.396	2.609	-	-	
C: 7/2 ⁺	0.155	0.552	0.920	1.288	1.663	2.047	2.441	2.846	3.260	3.684	c
¹⁴⁹ Eu	0.795	-	1.177	-	1.765	-	2.453	-	-	-	
D: 9/2 ⁻	0.788	0.977	1.201	1.460	1.753	2.080	2.442	2.839	3.269	3.735	a

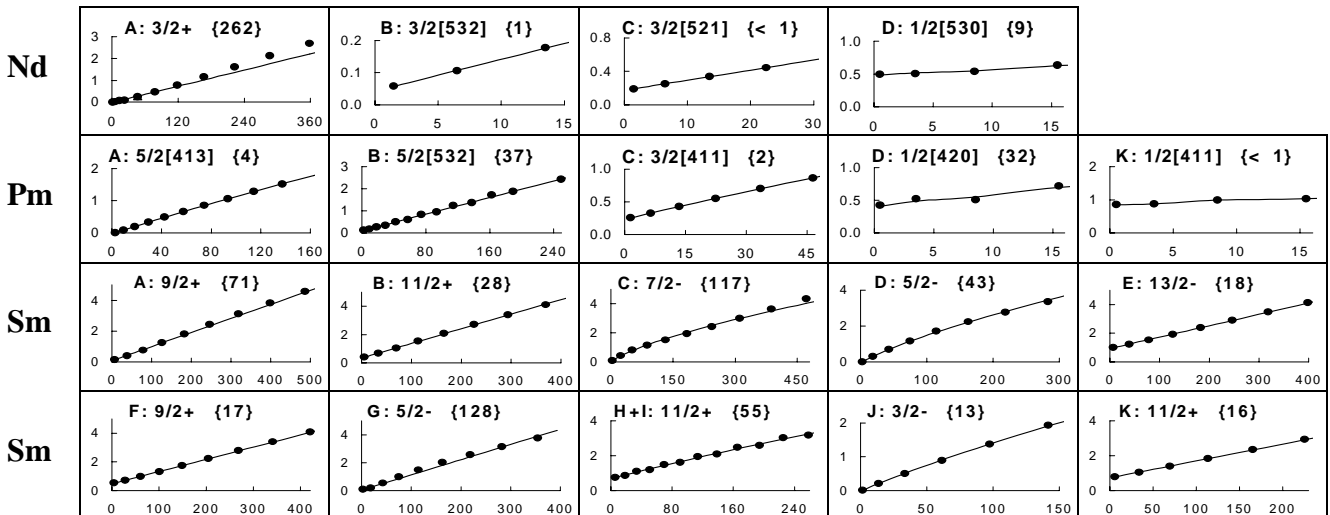
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=149 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹⁴⁹ Eu	1.529	1.899	1.999	2.343	2.562	2.828	3.219	3.249	3.992	4.100	37/2
E+F: 15/2 ⁺	1.576	1.796	2.035	2.292	2.565	2.855	3.161	3.481	3.815	4.163	
¹⁴⁹ Eu	2.181	-	2.497	-	2.752	-	3.428	-	4.189	-	43/2
G: 19/2 ⁻	2.048	2.255	2.483	2.729	2.996	3.282	3.589	3.914	4.260	4.625	a
¹⁴⁹ Eu	3.543	3.616	4.223	4.360	4.970	5.050	-	5.539	6.289	6.810	55/2
H: 31/2 ⁺	3.475	3.781	4.097	4.424	4.760	5.106	5.461	5.826	6.199	6.581	
¹⁴⁹ Gd	10.630	-	11.240	-	11.910	-	12.620	-	13.380	-	135/2
A: 47/2	10.588	10.893	11.210	11.540	11.882	12.236	12.603	12.982	13.374	13.778	a, s
¹⁴⁹ Gd	0.796	-	1.609	-	2.232	-	2.524	-	-	-	
E: 9/2 ⁻	0.836	1.137	1.440	1.754	2.079	2.416	2.765	3.126	3.498	3.881	
¹⁴⁹ Gd	0.873	0.956	-	1.740	-	2.401	-	-	-	-	
F: 11/2 ⁺	0.813	1.054	1.332	1.648	2.000	2.390	2.816	3.280	3.780	4.318	a
¹⁴⁹ Gd	4.054	-	4.801	-	5.300	-	5.634	-	-	-	
G: 29/2 ⁻	4.096	4.439	4.723	4.985	5.234	5.476	5.713	5.948	6.181	6.413	
¹⁴⁹ Gd	4.719	-	5.463	-	6.099	-	6.470	-	-	-	
H: 33/2 ⁺	4.749	5.115	5.431	5.726	6.009	6.285	6.557	6.826	7.093	7.360	
¹⁴⁹ Gd	6.656	-	7.822	-	8.557	-	-	-	-	-	
I: 49/2 ⁺	6.684	7.253	7.739	8.186	8.610	9.020	9.419	9.811	10.197	10.580	
¹⁴⁹ Gd	8.940	-	9.502	-	10.600	-	-	-	-	-	
J: 57/2 ⁻	8.867	9.256	9.658	10.073	10.501	10.942	11.396	11.864	12.345	12.838	a
¹⁴⁹ Gd	9.438	-	10.360	10.930	11.200	-	-	-	-	-	
K: 59/2 ⁻	9.434	9.953	10.411	10.837	11.244	11.638	12.023	12.401	12.773	13.142	
¹⁴⁹ Tb	4.107	4.208	4.463	4.674	4.923	5.148	-	-	-	-	
D: 31/2 ⁺	4.067	4.259	4.463	4.678	4.905	5.144	5.394	5.656	5.930	6.215	a
¹⁴⁹ Tb	5.619	5.712	6.112	-	-	-	-	-	-	-	
E: 41/2 ⁻	5.571	5.808	6.056	6.314	6.584	6.865	7.158	7.461	7.775	8.100	a
¹⁴⁹ Tb	6.025	6.221	6.400	-	-	-	-	-	-	-	
F: 43/2 ⁻	6.023	6.225	6.398	6.557	6.708	6.855	6.998	7.139	7.278	7.417	
¹⁴⁹ Tb	7.976	8.247	8.733	-	-	-	-	-	-	-	
G: 51/2 ⁺	7.944	8.313	8.695	9.091	9.501	9.926	10.364	10.815	11.281	11.761	a
¹⁴⁹ Tb	11.200	-	12.150	-	13.120	-	-	-	-	-	
H: 67/2 ⁻	11.199	11.674	12.152	12.633	13.119	13.609	14.103	14.602	15.106	15.614	s

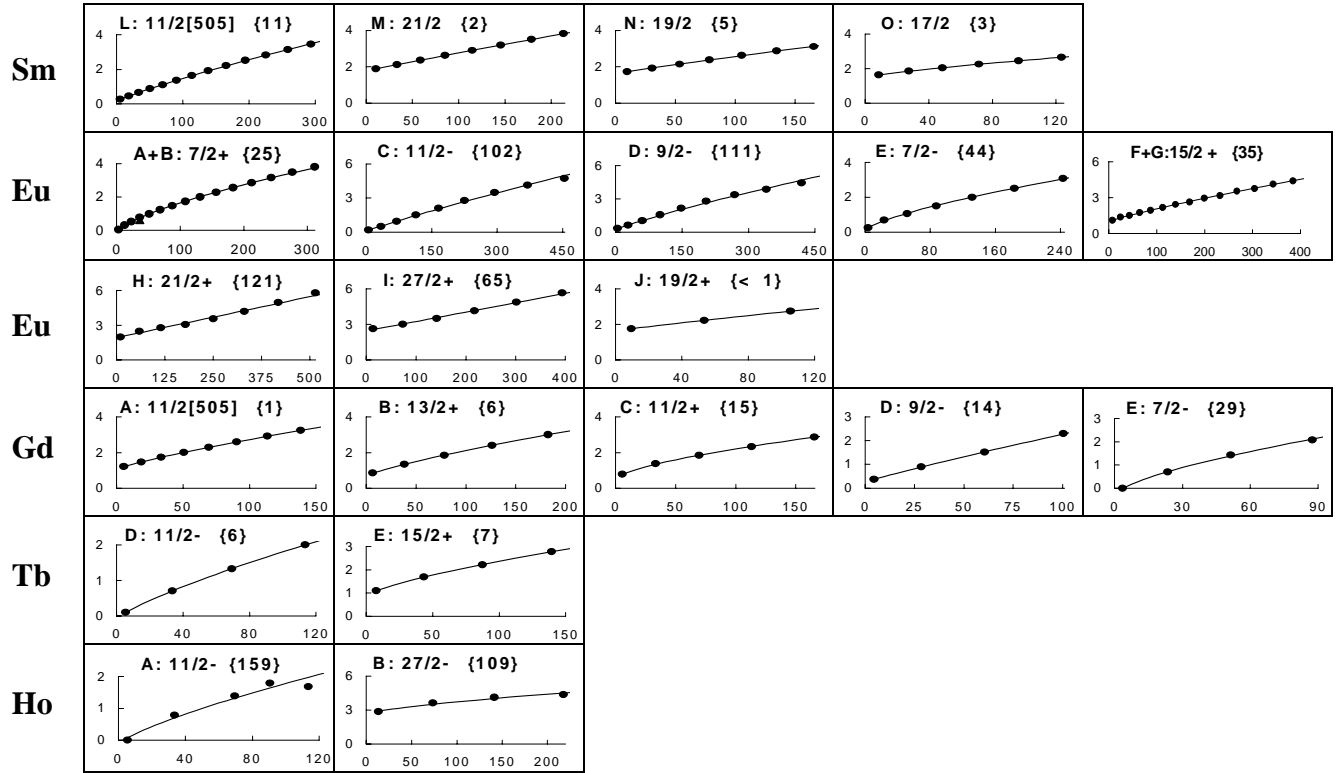
A=151

Singh B. //NDS, 1997, v.80, p.263



A=151 (continuation)

Singh B. //NDS, 1997, v.80, p.263



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{151}Nd A: $3/2^+$	0.0 -0.005	0.022 0.026	0.076 0.070	0.096 0.125	- 0.194	0.245 0.274	- 0.368	0.472 0.473	- 0.591	0.780 0.722	41/2 a
^{151}Nd B: $3/2[532]$	0.058 0.057	0.106 0.107	0.178 0.176	- 0.266	- 0.375	- 0.503	- 0.652	- 0.820	- 1.009	- 1.217	a
^{151}Nd C: $3/2[521]$	0.189 0.189	0.250 0.250	0.336 0.335	0.444 0.444	- 0.576	- 0.731	- 0.908	- 1.106	- 1.326	- 1.566	
^{151}Nd D: $1/2[530]$	0.495 0.485	0.507 0.518	0.543 0.549	0.635 0.628	- 0.682	- 0.806	- 0.885	- 1.054	- 1.157	- 1.372	a, c
^{151}Pm A: $5/2[413]$	0.0 -0.001	0.085 0.086	0.197 0.197	0.330 0.329	0.487 0.482	0.658 0.656	0.854 0.848	1.058 1.058	1.288 1.285	1.520 1.529	25/2 c
^{151}Pm B: $5/2[532]$	0.117 0.113	0.175 0.179	0.261 0.264	0.344 0.368	0.498 0.490	0.597 0.632	0.827 0.793	0.945 0.972	1.239 1.171	1.377 1.388	31/2 a, c
^{151}Pm C: $3/2[411]$	0.256 0.255	0.325 0.327	0.427 0.426	0.552 0.551	0.701 0.699	0.866 0.869	- 1.059	- 1.268	- 1.496	- 1.739	
^{151}Pm D: $1/2[420]$	0.426 0.404	0.524 0.486	0.508 0.550	0.719 0.698	- 0.791	- 0.983	- 1.096	- 1.320	- 1.449	- 1.700	
^{151}Pm K: $1/2[411]$	0.852 0.852	0.875 0.875	0.990 0.990	1.037 1.037	- 1.219	- 1.284	- 1.518	- 1.597	- 1.873	- 1.963	
^{151}Sm A: $9/2^+$	0.092 -0.078	- 0.022	0.148 0.141	- 0.278	0.383 0.433	- 0.606	0.758 0.798	- 1.007	1.237 1.236	- 1.482	45/2 a
^{151}Sm B: $11/2^+$	0.419 0.410	- 0.543	0.672 0.698	- 0.872	1.054 1.067	- 1.283	1.533 1.520	- 1.776	2.089 2.054	- 2.352	39/2 a
^{151}Sm C: $7/2^-$	0.066 0.066	- 0.240	0.423 0.413	- 0.591	0.813 0.776	- 0.969	1.142 1.168	- 1.373	1.503 1.586	- 1.804	43/2
^{151}Sm D: $5/2^-$	0.0 -0.003	- 0.137	0.295 0.301	- 0.486	0.696 0.689	- 0.909	1.161 1.143	- 1.391	1.706 1.652	- 1.926	33/2
^{151}Sm E: $13/2^-$	0.993 0.978	- 1.097	1.224 1.233	- 1.384	1.531 1.550	- 1.733	1.907 1.932	- 2.147	2.376 2.377	- 2.624	41/2 a

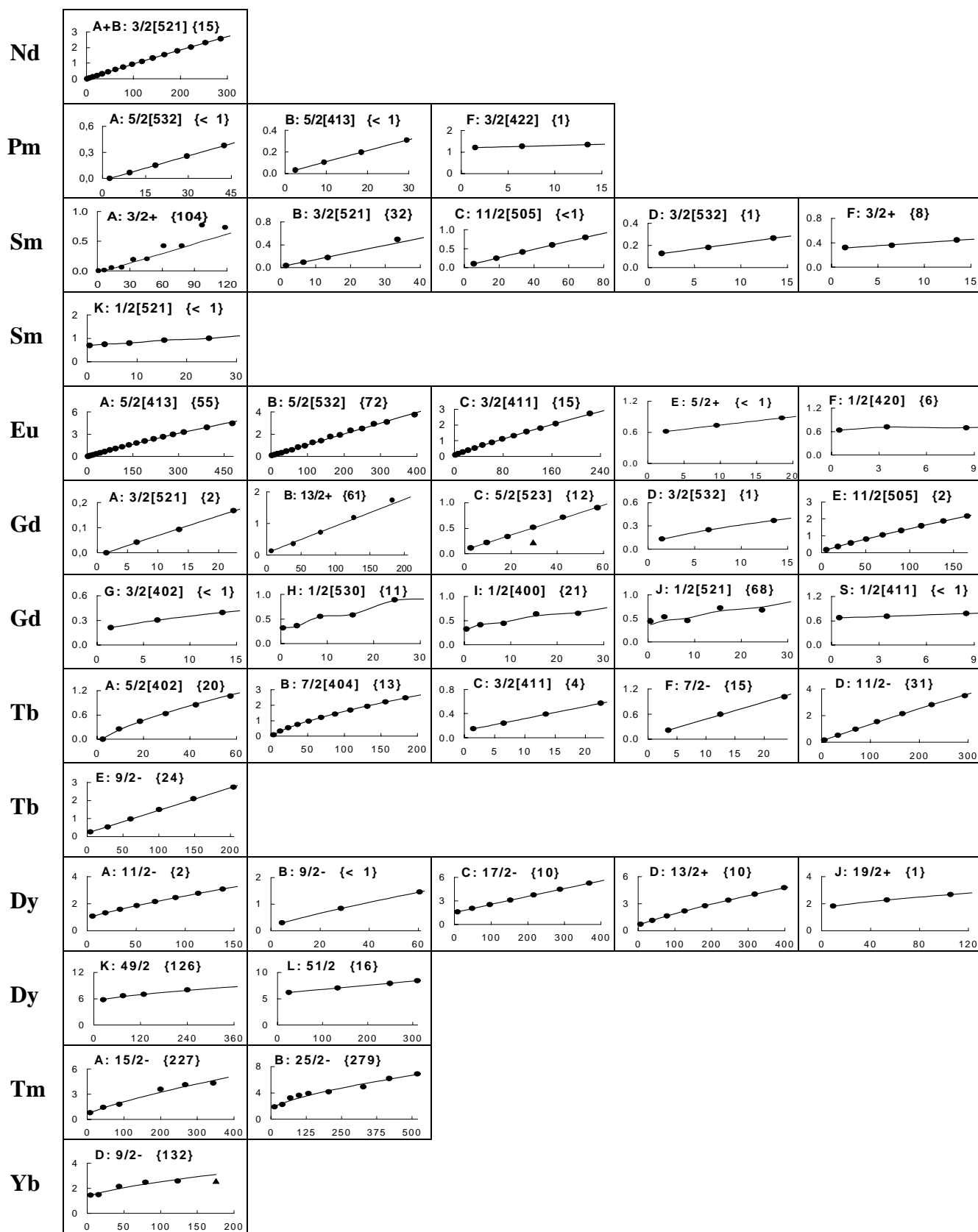
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=151 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵¹ Sm	0.530	-	0.706	-	0.975	-	1.322	-	1.740	-	41/2
F: 9/2 ⁺	0.517	0.610	0.721	0.849	0.994	1.156	1.335	1.531	1.744	1.974	a
¹⁵¹ Sm	0.070	-	0.175	-	0.532	-	0.994	-	1.479	-	37/2
G: 5/2 ⁻	0.062	0.138	0.236	0.357	0.499	0.663	0.848	1.056	1.285	1.537	a
¹⁵¹ Sm	0.754	0.851	1.092	1.191	1.490	1.626	1.955	2.098	2.472	2.601	33/2
H+I: 11/2 ⁺	0.737	0.886	1.054	1.239	1.441	1.659	1.891	2.138	2.398	2.671	
¹⁵¹ Sm	0.005	-	0.209	-	0.502	-	0.895	-	1.379	-	23/2
J: 3/2 ⁻	0.005	0.090	0.205	0.346	0.512	0.700	0.908	1.134	1.377	1.636	
¹⁵¹ Sm	0.797	-	1.041	-	1.387	-	1.830	-	2.351	-	31/2
K: 11/2 ⁺	0.785	0.911	1.056	1.221	1.404	1.608	1.830	2.072	2.333	2.614	a
¹⁵¹ Sm	0.261	0.445	0.648	0.869	1.108	1.361	1.630	1.912	2.206	2.510	35/2
L: 11/2[505]	0.261	0.446	0.650	0.871	1.108	1.360	1.626	1.904	2.196	2.499	
¹⁵¹ Sm	1.883	2.107	2.351	2.613	2.892	3.186	3.494	3.812	-	-	
M: 21/2	1.882	2.109	2.353	2.613	2.891	3.184	3.492	3.816	4.154	4.506	
¹⁵¹ Sm	1.721	1.917	2.133	2.364	2.611	2.861	3.107	-	-	-	
N: 19/2	1.718	1.921	2.136	2.364	2.604	2.854	3.116	3.388	3.669	3.961	
¹⁵¹ Sm	1.628	1.835	2.041	2.248	2.444	2.651	-	-	-	-	
O: 17/2	1.627	1.838	2.041	2.243	2.446	2.652	2.861	3.074	3.290	3.511	
¹⁵¹ Eu	0.022	0.308	0.511	0.752	0.973	1.221	1.463	1.719	1.996	2.276	35/2
A+B: 7/2 ⁺	0.022	0.276	0.512	0.749	0.991	1.239	1.493	1.754	2.021	2.295	c
¹⁵¹ Eu	0.196	-	0.502	-	0.957	-	1.503	-	2.118	-	43/2
C: 11/2 ⁻	0.193	0.353	0.535	0.738	0.962	1.206	1.468	1.748	2.046	2.361	
¹⁵¹ Eu	0.350	-	0.611	-	1.041	-	1.564	-	2.152	-	41/2
D: 9/2 ⁻	0.340	0.487	0.656	0.845	1.054	1.280	1.523	1.782	2.056	2.344	c
¹⁵¹ Eu	0.243	-	0.698	-	1.057	-	1.505	-	1.995	-	39/2
E: 7/2 ⁻	0.245	0.458	0.664	0.874	1.089	1.312	1.542	1.778	2.022	2.272	
¹⁵¹ Eu	1.114	1.383	1.507	1.765	1.948	2.171	2.438	2.636	2.955	3.183	43/2
F+G: 15/2 ⁺	1.143	1.326	1.522	1.732	1.953	2.187	2.431	2.686	2.952	3.227	c
¹⁵¹ Eu	1.965	-	2.457	-	2.774	-	3.046	-	3.545	-	49/2
H: 21/2 ⁺	1.993	2.156	2.333	2.524	2.729	2.949	3.183	3.431	3.693	3.969	a
¹⁵¹ Eu	2.611	-	2.990	-	3.480	-	4.120	-	4.859	-	47/2
I: 27/2 ⁺	2.551	2.781	3.026	3.287	3.564	3.857	4.166	4.490	4.831	5.187	a
¹⁵¹ Eu	1.752	-	2.224	-	2.735	-	-	-	-	-	
J: 19/2 ⁺	1.752	1.983	2.224	2.475	2.735	3.004	3.283	3.570	3.865	4.169	
¹⁵¹ Gd	1.210	1.463	1.726	2.004	2.295	2.600	2.915	3.238	-	-	
A: 11/2[505]	1.210	1.463	1.727	2.004	2.295	2.598	2.913	3.241	3.579	3.928	
¹⁵¹ Gd	0.852	-	1.345	-	1.853	-	2.405	-	3.008	-	
B: 13/2 ⁺	0.852	1.094	1.340	1.595	1.858	2.130	2.411	2.701	2.999	3.306	
¹⁵¹ Gd	0.785	-	1.364	-	1.852	-	2.325	-	2.866	-	
C: 11/2 ⁺	0.790	1.083	1.342	1.594	1.844	2.095	2.349	2.607	2.869	3.135	
¹⁵¹ Gd	0.379	-	0.902	-	1.511	-	2.297	-	-	-	
D: 9/2 ⁻	0.380	0.620	0.894	1.199	1.533	1.894	2.280	2.690	3.123	3.577	
¹⁵¹ Gd	0.0	-	0.706	-	1.435	-	2.078	-	-	-	
E: 7/2 ⁻	0.001	0.366	0.707	1.048	1.396	1.753	2.120	2.497	2.883	3.278	
¹⁵¹ Tb	0.100	-	0.704	-	1.320	-	2.002	-	-	-	
D: 11/2 ⁻	0.100	0.401	0.702	1.011	1.328	1.656	1.994	2.342	2.700	3.068	
¹⁵¹ Tb	1.097	-	1.693	-	2.220	-	2.783	-	-	-	
E: 15/2 ⁺	1.097	1.407	1.688	1.961	2.231	2.502	2.776	3.052	3.333	3.617	
¹⁵¹ Ho	0.0	-	0.789	-	1.387	1.791	1.684	-	-	-	
A: 11/2 ⁻	0.082	0.393	0.698	1.006	1.321	1.645	1.977	2.319	2.669	3.027	
¹⁵¹ Ho	2.851	-	3.624	-	4.110	-	4.356	-	-	-	
B: 27/2 ⁻	2.912	3.229	3.504	3.762	4.011	4.255	4.497	4.737	4.977	5.217	

A=153

Helmer R.G. //NDS, 1998, v.83, p.285



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=153

Helmer R.G. //NDS, 1998, v.83, p.285

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵³ Nd	0.0	0.050	0.120	0.208	0.318	0.442	0.590	0.745	0.929	1.113	35/2
A+B: 3/2[521]	0.0	0.050	0.120	0.209	0.316	0.443	0.586	0.748	0.925	1.119	
¹⁵³ Pm	0.0	0.066	0.151	0.255	0.378	-	-	-	-	-	
A: 5/2[532]	0.0	0.066	0.151	0.255	0.377	0.519	0.679	0.858	1.057	1.274	a
¹⁵³ Pm	0.032	0.105	0.199	0.311	-	-	-	-	-	-	
B: 5/2[413]	0.032	0.106	0.199	0.311	0.442	0.591	0.757	0.940	1.138	1.351	
¹⁵³ Pm	1.208	1.262	1.345	-	-	-	-	-	-	-	
F: 3/2[422]	1.207	1.264	1.344	1.447	1.573	1.721	1.893	2.087	2.304	2.544	a
¹⁵³ Sm	0.0	0.008	0.054	0.065	0.189	0.196	0.425	0.418	0.766	0.733	
A: 3/2 ⁺	-0.019	0.007	0.046	0.096	0.157	0.228	0.311	0.405	0.510	0.626	a
¹⁵³ Sm	0.036	0.091	0.174	-	0.495	-	-	-	-	-	
B: 3/2[521]	0.035	0.097	0.184	0.296	0.433	0.594	0.781	0.993	1.229	1.490	a
¹⁵³ Sm	0.098	0.246	0.413	0.598	0.800	-	-	-	-	-	
C: 11/2[505]	0.098	0.246	0.413	0.598	0.800	1.018	1.252	1.500	1.762	2.038	
¹⁵³ Sm	0.127	0.183	0.266	-	-	-	-	-	-	-	
D: 3/2[532]	0.127	0.184	0.265	0.368	0.494	0.643	0.815	1.011	1.229	1.470	a
¹⁵³ Sm	0.321	0.357	0.447	-	-	-	-	-	-	-	
F: 3/2 ⁺	0.316	0.367	0.440	0.532	0.646	0.780	0.934	1.110	1.305	1.522	a
¹⁵³ Sm	0.696	0.750	0.796	0.922	1.000	-	-	-	-	-	
K: 1/2[521]	0.696	0.751	0.796	0.922	1.000	1.190	1.298	1.545	1.680	1.977	
¹⁵³ Eu	0.0	0.083	0.193	0.325	0.481	0.655	0.851	1.061	1.293	1.534	43/2
A: 5/2[413]	-0.002	0.085	0.195	0.328	0.481	0.653	0.844	1.053	1.278	1.519	
¹⁵³ Eu	0.097	0.152	0.235	0.322	0.478	0.590	0.826	0.954	1.262	1.404	39/2
B: 5/2[532]	0.090	0.159	0.246	0.353	0.480	0.626	0.792	0.977	1.181	1.405	a
¹⁵³ Eu	0.103	0.173	0.270	0.396	0.538	0.716	0.891	1.113	1.314	1.575	29/2
C: 3/2[411]	0.103	0.174	0.271	0.394	0.539	0.707	0.895	1.102	1.326	1.568	
¹⁵³ Eu	0.617	0.733	0.876	-	-	-	-	-	-	-	
E: 5/2 ⁺	0.617	0.733	0.876	1.046	1.241	1.458	1.695	1.953	2.228	2.520	
¹⁵³ Eu	0.635	0.719	0.694	-	-	-	-	-	-	-	
F: 1/2[420]	0.632	0.710	0.700	0.813	0.800	0.936	0.922	1.075	1.059	1.227	
¹⁵³ Gd	0.0	0.042	0.093	0.168	-	-	-	-	-	-	
A: 3/2[521]	0.0	0.041	0.096	0.166	0.248	0.342	0.448	0.563	0.689	0.823	c
¹⁵³ Gd	0.135	-	0.361	-	0.724	-	1.191	-	1.741	-	
B: 13/2 ⁺	0.131	0.257	0.401	0.562	0.740	0.934	1.146	1.374	1.619	1.882	a, b, c
¹⁵³ Gd	0.110	0.216	0.333	0.514	0.716	0.899	-	-	-	-	
C: 5/2[523]	0.110	0.213	0.345	0.506	0.696	0.915	1.161	1.436	1.737	2.066	c
¹⁵³ Gd	0.129	0.250	0.369	-	-	-	-	-	-	-	
D: 3/2[532]	0.129	0.248	0.370	0.501	0.639	0.784	0.937	1.096	1.261	1.431	
¹⁵³ Gd	0.171	0.363	0.575	0.805	1.051	1.312	1.586	1.872	2.168	-	
E: 11/2[505]	0.171	0.364	0.576	0.804	1.050	1.310	1.584	1.872	2.173	2.486	
¹⁵³ Gd	0.212	0.303	0.395	-	-	-	-	-	-	-	
G: 3/2[402]	0.212	0.302	0.396	0.495	0.600	0.711	0.828	0.949	1.074	1.204	
¹⁵³ Gd	0.315	0.362	0.551	0.579	0.888	-	-	-	-	-	
H: 1/2[530]	0.322	0.351	0.546	0.597	0.876	0.941	1.280	1.356	1.742	1.827	c
¹⁵³ Gd	0.328	0.413	0.442	0.636	0.649	-	-	-	-	-	
I: 1/2[400]	0.315	0.414	0.466	0.603	0.670	0.833	0.909	1.093	1.177	1.378	c
¹⁵³ Gd	0.436	0.530	0.449	0.720	0.674	-	-	-	-	-	
J: 1/2[521]	0.365	0.449	0.506	0.657	0.739	0.934	1.033	1.262	1.375	1.631	c
¹⁵³ Gd	0.677	0.709	0.775	-	-	-	-	-	-	-	
S: 1/2[411]	0.677	0.709	0.775	0.824	0.912	0.972	1.074	1.142	1.257	1.332	

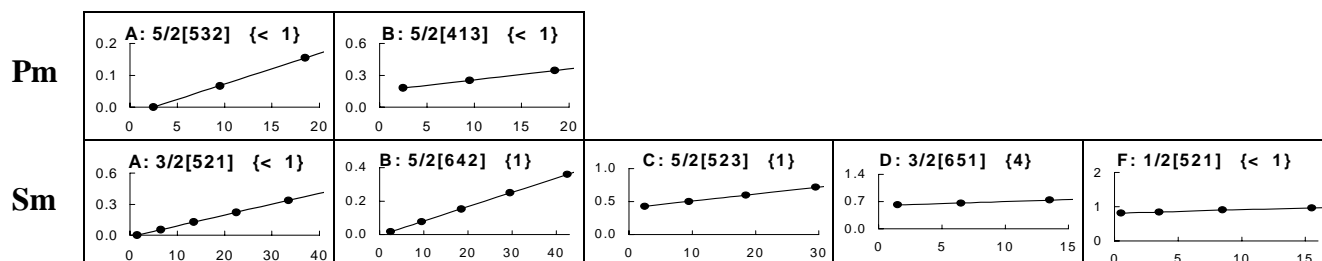
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=153 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵³ Tb	0.0	0.254	0.445	0.630	0.848	1.067	-	-	-	-	
A: 5/2[402]	0.018	0.229	0.435	0.647	0.866	1.094	1.330	1.574	1.825	2.084	
¹⁵³ Tb	0.081	0.325	0.529	0.755	0.968	1.199	1.423	1.682	1.924	2.211	27/2
B: 7/2[404]	0.082	0.312	0.531	0.751	0.977	1.210	1.449	1.695	1.948	2.207	
¹⁵³ Tb	0.148	0.241	0.390	0.572	-	-	-	-	-	-	
C: 3/2[411]	0.146	0.246	0.387	0.568	0.788	1.049	1.351	1.692	2.073	2.495	a
¹⁵³ Tb	0.214	0.597	1.010	-	-	-	-	-	-	-	
F: 7/2 ⁻	0.215	0.581	1.030	1.559	2.171	2.863	3.637	4.493	5.430	6.449	a
¹⁵³ Tb	0.163	-	0.511	-	0.979	-	1.533	-	2.156	-	35/2
D: 11/2 ⁻	0.162	0.331	0.523	0.738	0.975	1.233	1.511	1.808	2.124	2.459	
¹⁵³ Tb	0.263	-	0.535	-	0.967	-	1.495	-	2.095	-	29/2
E: 9/2 ⁻	0.259	0.396	0.559	0.747	0.960	1.198	1.461	1.750	2.063	2.401	a
¹⁵³ Dy	1.068	1.322	1.584	1.862	2.152	2.454	2.763	3.080	-	-	
A: 11/2 ⁻	1.068	1.322	1.586	1.862	2.150	2.450	2.762	3.085	3.418	3.762	
¹⁵³ Dy	0.296	-	0.837	-	1.455	-	-	-	-	-	
B: 9/2 ⁻	0.296	0.557	0.837	1.137	1.455	1.790	2.142	2.508	2.890	3.285	
¹⁵³ Dy	1.603	-	2.041	-	2.522	-	3.074	-	3.743	-	41/2
C: 17/2 ⁻	1.609	1.807	2.026	2.264	2.522	2.798	3.094	3.407	3.739	4.089	
¹⁵³ Dy	0.712	-	1.160	-	1.648	-	2.181	-	2.762	-	41/2
D: 13/2 ⁺	0.714	0.927	1.154	1.394	1.647	1.911	2.188	2.475	2.773	3.080	
¹⁵³ Dy	1.822	-	2.285	-	2.686	-	-	-	-	-	
J: 19/2 ⁺	1.823	2.068	2.283	2.488	2.687	2.886	3.083	3.282	3.481	3.683	
¹⁵³ Dy	5.760	6.717	6.999	-	8.029	-	8.637	-	-	-	
K: 49/2	5.874	6.509	7.026	7.492	7.929	8.346	8.750	9.145	9.532	9.914	
¹⁵³ Dy	6.227	-	7.064	-	7.933	8.451	-	-	-	-	
L: 51/2	6.225	6.635	7.061	7.502	7.959	8.431	8.918	9.421	9.940	10.474	a
¹⁵³ Tm	0.791	-	1.439	-	1.786	-	-	-	3.608	-	39/2
A: 15/2 ⁻	0.794	1.080	1.367	1.660	1.960	2.268	2.584	2.908	3.240	3.580	
¹⁵³ Tm	1.879	2.240	3.249	3.636	3.912	-	4.187	-	-	4.919	51/2
B: 25/2 ⁻	1.933	2.437	2.857	3.246	3.618	3.980	4.338	4.692	5.045	5.397	
¹⁵³ Yb	1.459	1.491	-	2.153	-	2.481	-	2.578	-	-	
D: 9/2 ⁻	1.413	1.617	1.800	1.980	2.161	2.344	2.531	2.721	2.915	3.113	c

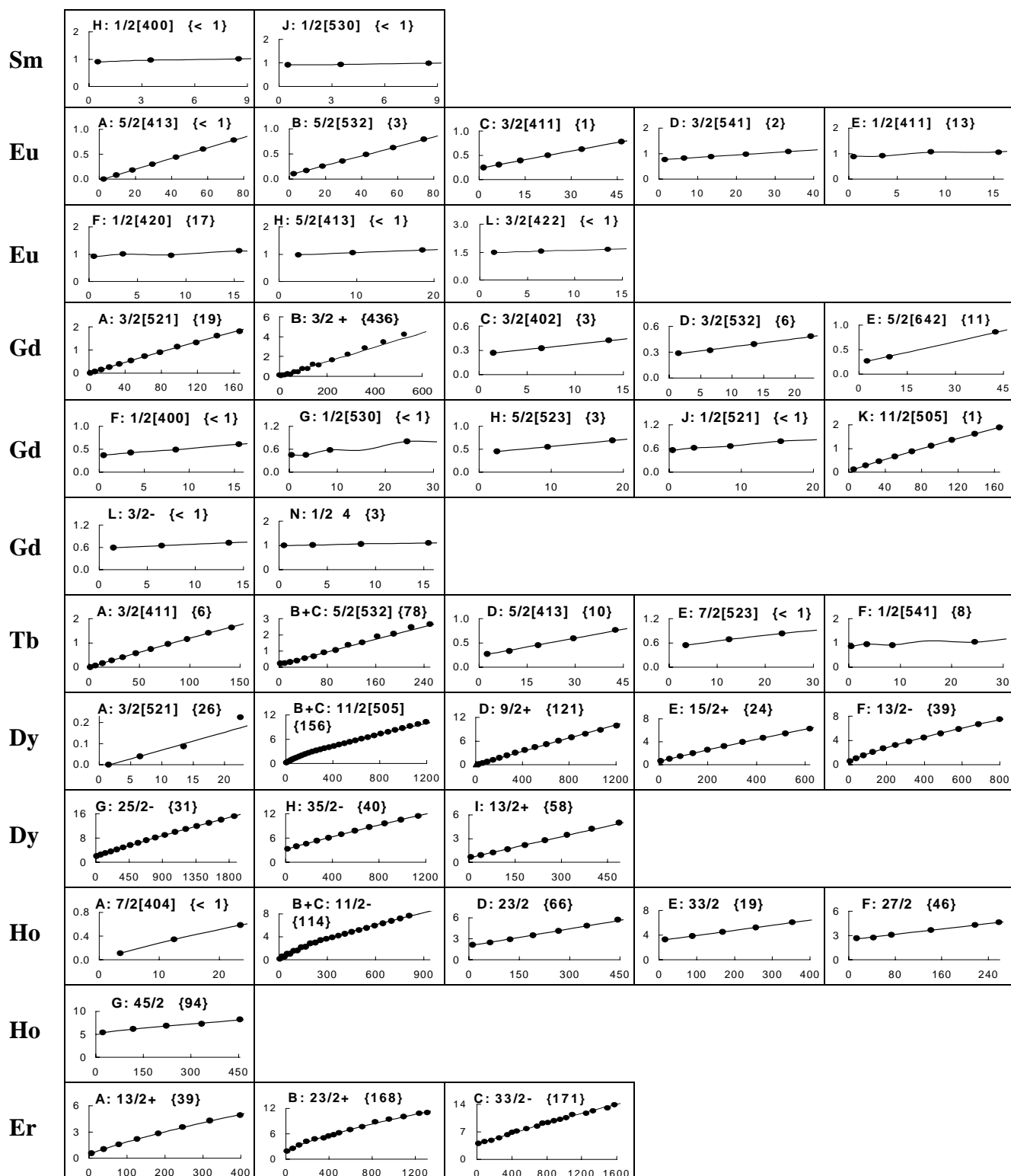
A=155

Reich C.W. //NDS, 1994, v.71, p.709



A=155 (continuation)

Reich C.W. //NDS, 1994, v.71, p.709



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=155

Reich C.W. //NDS, 1994, v.71, p.709

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵⁵ Pm	0.0	0.067	0.155	-	-	-	-	-	-	-	
A: 5/2[532]	0.0	0.068	0.154	0.261	0.386	0.531	0.695	0.878	1.081	1.303	a
¹⁵⁵ Pm	0.181	0.253	0.346	-	-	-	-	-	-	-	
B: 5/2[413]	0.181	0.253	0.346	0.458	0.589	0.739	0.907	1.092	1.294	1.513	
¹⁵⁵ Sm	0.0	0.053	0.128	0.221	0.337	-	-	-	-	-	
A: 3/2[521]	0.0	0.053	0.127	0.222	0.337	0.471	0.625	0.798	0.990	1.199	
¹⁵⁵ Sm	0.017	0.076	0.152	0.250	0.359	-	-	-	-	-	
B: 5/2[642]	0.017	0.076	0.154	0.248	0.359	0.488	0.633	0.796	0.976	1.173	a
¹⁵⁵ Sm	0.426	0.500	0.595	0.716	-	-	-	-	-	-	
C: 5/2[523]	0.426	0.501	0.597	0.714	0.853	1.013	1.195	1.398	1.622	1.868	a
¹⁵⁵ Sm	0.618	0.658	0.737	-	-	-	-	-	-	-	
D: 3/2[651]	0.614	0.664	0.734	0.823	0.932	1.061	1.210	1.379	1.568	1.777	a
¹⁵⁵ Sm	0.820	0.844	0.907	0.962	-	-	-	-	-	-	
F: 1/2[521]	0.820	0.844	0.907	0.962	1.072	1.156	1.309	1.419	1.610	1.744	
¹⁵⁵ Sm	0.904	0.968	1.011	-	-	-	-	-	-	-	
H: 1/2[400]	0.903	0.968	1.011	1.114	1.172	1.300	1.368	1.514	1.591	1.753	
¹⁵⁵ Sm	0.915	0.931	0.984	-	-	-	-	-	-	-	
J: 1/2[530]	0.916	0.931	0.984	1.007	1.078	1.105	1.188	1.219	1.311	1.346	
¹⁵⁵ Eu	0.0	0.079	0.179	0.301	0.443	0.604	0.785	-	-	-	
A: 5/2[413]	0.0	0.079	0.179	0.301	0.443	0.605	0.786	0.985	1.203	1.437	
¹⁵⁵ Eu	0.104	0.169	0.255	0.357	0.487	0.624	0.793	-	-	-	
B: 5/2[532]	0.104	0.170	0.256	0.360	0.483	0.625	0.787	0.967	1.166	1.384	a
¹⁵⁵ Eu	0.246	0.307	0.391	0.501	0.627	0.782	-	-	-	-	
C: 3/2[411]	0.246	0.307	0.392	0.500	0.630	0.781	0.952	1.143	1.353	1.580	
¹⁵⁵ Eu	0.768	0.818	0.882	0.974	1.078	-	-	-	-	-	
D: 3/2[541]	0.768	0.817	0.885	0.972	1.079	1.205	1.350	1.515	1.699	1.903	a
¹⁵⁵ Eu	0.877	0.911	1.069	1.054	-	-	-	-	-	-	
E: 1/2[411]	0.891	0.899	1.056	1.068	1.278	1.294	1.542	1.560	1.839	1.859	
¹⁵⁵ Eu	0.923	1.007	0.956	1.132	-	-	-	-	-	-	
F: 1/2[420]	0.904	1.005	0.981	1.121	1.090	1.257	1.222	1.410	1.371	1.576	
¹⁵⁵ Eu	0.979	1.055	1.151	-	-	-	-	-	-	-	
H: 5/2[413]	0.979	1.055	1.151	1.267	1.401	1.553	1.723	1.909	2.111	2.327	
¹⁵⁵ Eu	1.483	1.549	1.633	-	-	-	-	-	-	-	
L: 3/2[422]	1.483	1.549	1.633	1.732	1.844	1.967	2.100	2.242	2.393	2.552	
¹⁵⁵ Gd	0.0	0.060	0.146	0.252	0.392	0.534	0.729	0.897	1.142	1.326	25/2
A: 3/2[521]	-0.001	0.061	0.146	0.255	0.386	0.538	0.711	0.903	1.115	1.344	
¹⁵⁵ Gd	0.105	0.087	0.118	0.108	0.230	0.214	0.454	0.424	0.787	0.737	
B: 3/2 ⁺	0.082	0.109	0.147	0.196	0.255	0.325	0.406	0.498	0.601	0.715	a
¹⁵⁵ Gd	0.269	0.326	0.423	-	-	-	-	-	-	-	
C: 3/2[402]	0.267	0.331	0.420	0.535	0.676	0.842	1.033	1.250	1.493	1.761	a
¹⁵⁵ Gd	0.287	0.321	0.394	0.486	-	-	-	-	-	-	
D: 3/2[532]	0.282	0.329	0.395	0.480	0.584	0.706	0.848	1.008	1.188	1.386	a
¹⁵⁵ Gd	0.267	0.350	-	-	0.860	-	-	-	-	-	
E: 5/2[642]	0.261	0.363	0.495	0.657	0.848	1.068	1.318	1.596	1.905	2.242	a
¹⁵⁵ Gd	0.368	0.427	0.489	0.611	-	-	-	-	-	-	
F: 1/2[400]	0.368	0.427	0.489	0.611	0.707	0.875	0.998	1.201	1.345	1.577	
¹⁵⁵ Gd	0.451	0.451	0.581	-	0.804	-	-	-	-	-	
G: 1/2[530]	0.451	0.451	0.582	0.580	0.804	0.802	1.108	1.104	1.481	1.476	
¹⁵⁵ Gd	0.454	0.553	0.692	-	-	-	-	-	-	-	
H: 5/2[523]	0.453	0.557	0.690	0.853	1.046	1.268	1.519	1.801	2.112	2.452	a
¹⁵⁵ Gd	0.559	0.615	0.659	0.787	-	-	-	-	-	-	
J: 1/2[521]	0.559	0.615	0.659	0.787	0.865	1.062	1.172	1.433	1.573	1.894	

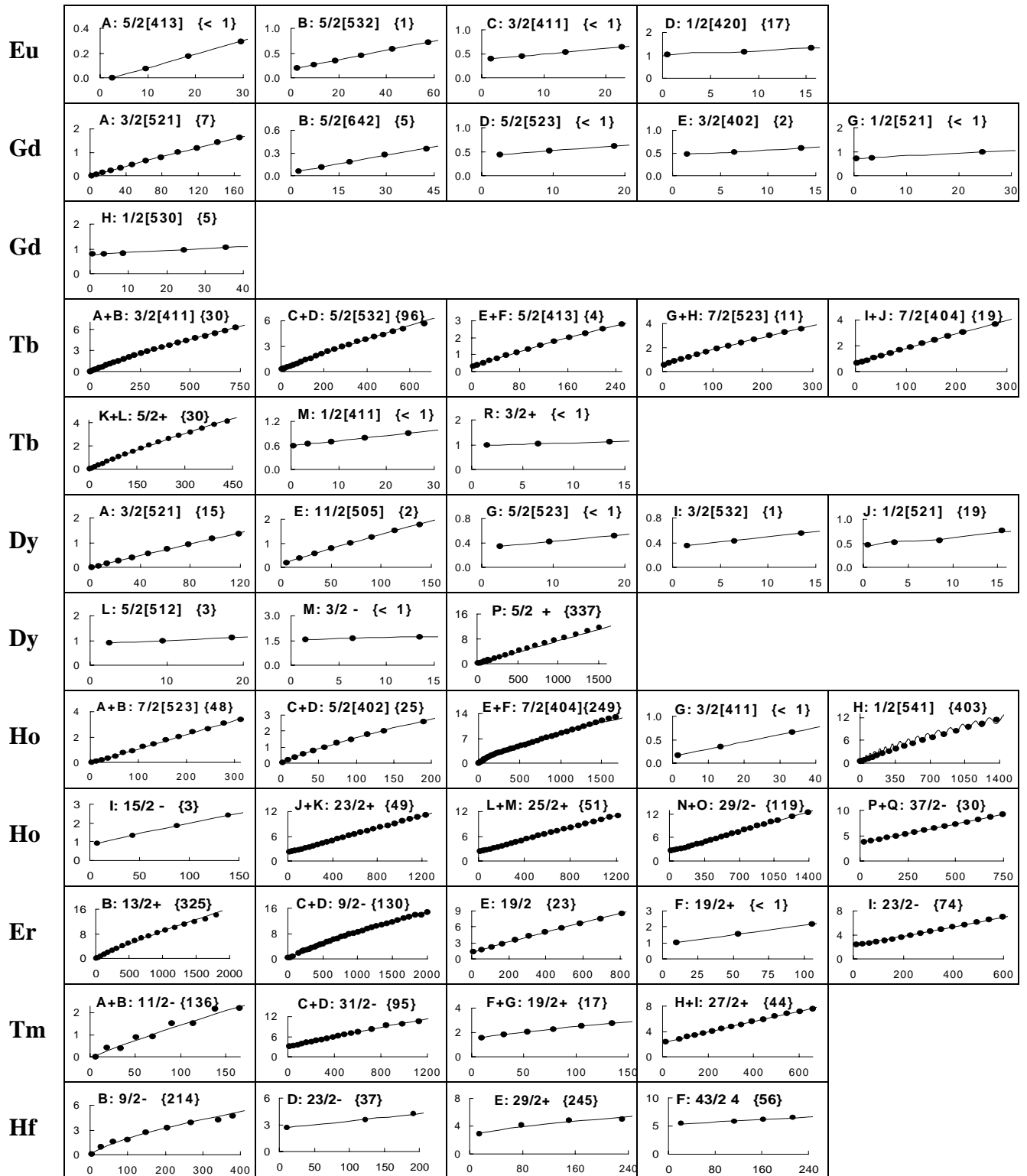
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=155 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵⁵ Gd K: 11/2[505]	0.121 0.121	0.283 0.283	0.464 0.464	0.664 0.664	0.881 0.879	1.113 1.111	1.359 1.358	1.618 1.618	1.889 1.893	- 2.179	
¹⁵⁵ Gd L: 3/2 ⁻	0.592 0.592	0.648 0.648	0.721 0.721	- 0.809	- 0.910	- 1.023	- 1.147	- 1.280	- 1.422	- 1.572	
¹⁵⁵ Gd N: 1/2 ⁻	1.003 0.999	1.013 1.017	1.061 1.063	1.105 1.103	- 1.186	- 1.249	- 1.369	- 1.455	- 1.612	- 1.721	a
¹⁵⁵ Tb A: 3/2[411]	0.0 0.0	0.065 0.066	0.156 0.157	0.274 0.272	0.409 0.410	0.576 0.570	0.748 0.750	0.959 0.950	1.162 1.168	1.412 1.404	23/2
¹⁵⁵ Tb B+C: 5/2[532]	0.227 0.188	0.250 0.256	0.317 0.344	0.397 0.451	0.555 0.578	0.673 0.725	0.917 0.891	1.057 1.076	1.377 1.281	1.529 1.506	31/2 a
¹⁵⁵ Tb D: 5/2[413]	0.271 0.263	0.335 0.348	0.453 0.459	0.596 0.593	0.767 0.752	- 0.936	- 1.144	- 1.377	- 1.634	- 1.916	a
¹⁵⁵ Tb E: 7/2[523]	0.545 0.545	0.688 0.688	0.834 0.834	- 0.986	- 1.144	- 1.310	- 1.482	- 1.660	- 1.844	- 2.034	
¹⁵⁵ Tb F: 1/2[541]	0.863 0.855	0.950 0.953	0.906 0.917	- 1.084	1.041 1.034	- 1.244	- 1.184	- 1.427	- 1.359	- 1.629	
¹⁵⁵ Dy A: 3/2[521]	0.0 -0.002	0.039 0.040	0.087 0.099	0.225 0.175	- 0.267	- 0.376	- 0.502	- 0.644	- 0.804	- 0.980	a
¹⁵⁵ Dy B+C: 11/2[505]	0.234 0.232	0.436 0.446	0.658 0.669	0.897 0.903	1.152 1.147	1.420 1.403	1.701 1.668	1.993 1.943	2.294 2.228	2.602 2.522	71/2
¹⁵⁵ Dy D: 9/2 ⁺	0.132 -0.066	- 0.032	0.154 0.147	- 0.280	0.382 0.430	- 0.598	0.745 0.783	- 0.985	1.210 1.205	- 1.441	69/2
¹⁵⁵ Dy E: 15/2 ⁺	0.644 0.639	- 0.820	1.006 1.020	- 1.239	1.463 1.474	- 1.727	2.000 1.996	- 2.281	2.603 2.582	- 2.897	51/2
¹⁵⁵ Dy F: 13/2 ⁻	0.577 0.576	- 0.805	1.032 1.040	- 1.284	1.534 1.537	- 1.799	2.083 2.070	- 2.349	2.689 2.636	- 2.932	57/2
¹⁵⁵ Dy G: 25/2 ⁻	2.013 2.009	- 2.233	2.477 2.472	- 2.726	2.991 2.994	- 3.276	3.557 3.571	- 3.880	4.181 4.202	- 4.536	89/2
¹⁵⁵ Dy H: 35/2 ⁻	3.306 3.295	- 3.600	3.914 3.918	- 4.248	4.576 4.591	- 4.946	5.291 5.312	- 5.690	6.063 6.079	- 6.480	75/2
¹⁵⁵ Dy I: 13/2 ⁺	0.659 0.630	- 0.764	0.894 0.916	- 1.086	1.226 1.274	- 1.479	1.651 1.702	- 1.944	2.171 2.203	- 2.479	45/2 a
¹⁵⁵ Ho A: 7/2[404]	0.110 0.110	0.345 0.345	0.583 0.583	- 0.831	- 1.089	- 1.359	- 1.640	- 1.930	- 2.231	- 2.541	
¹⁵⁵ Ho B+C: 11/2 ⁻	0.142 0.145	0.538 0.390	0.519 0.637	1.002 0.891	1.018 1.153	1.561 1.424	1.606 1.704	2.190 1.992	2.266 2.289	2.859 2.594	61/2
¹⁵⁵ Ho D: 23/2	2.130 2.073	- 2.276	2.465 2.495	- 2.730	2.918 2.982	- 3.250	3.491 3.534	- 3.835	4.121 4.152	- 4.484	47/2 a
¹⁵⁵ Ho E: 33/2	3.263 3.253	- 3.542	3.840 3.847	- 4.169	4.491 4.507	- 4.862	5.216 5.234	- 5.622	6.059 6.026	- 6.447	a
¹⁵⁵ Ho F: 27/2	2.644 2.577	2.731 2.817	3.066 3.074	- 3.347	3.659 3.637	- 3.944	4.279 4.267	4.603 4.606	- 4.963	- 5.336	a
¹⁵⁵ Ho G: 45/2	5.394 5.407	- 5.779	6.170 6.130	- 6.470	6.846 6.804	- 7.134	7.294 7.461	- 7.788	8.225 8.114	- 8.440	
¹⁵⁵ Er A: 13/2 ⁺	0.563 0.562	- 0.794	1.039 1.041	- 1.304	1.573 1.581	- 1.872	2.169 2.176	- 2.492	2.838 2.821	- 3.161	41/2
¹⁵⁵ Er B: 23/2 ⁺	1.917 1.915	- 2.292	2.574 2.638	- 2.971	3.354 3.300	- 3.627	4.219 3.954	- 4.283	4.788 4.614	- 4.948	75/2
¹⁵⁵ Er C: 33/2 ⁻	4.094 3.948	- 4.205	4.445 4.473	- 4.753	4.817 5.044	- 5.345	5.495 5.658	- 5.980	6.224 6.313	6.889 6.655	85/2

A=157

Helmer R.G. //NDS, 1996, v.78, p.219



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=157

Helmer R.G. //NDS, 1996, v.78, p.219

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵⁷ Eu	0.0	0.077	0.177	0.296	-	-	-	-	-	-	
A: 5/2[413]	0.0	0.077	0.176	0.297	0.439	0.604	0.790	0.997	1.226	1.475	
¹⁵⁷ Eu	0.198	0.263	0.350	0.457	0.584	0.724	-	-	-	-	
B: 5/2[532]	0.197	0.264	0.351	0.457	0.581	0.725	0.889	1.071	1.273	1.494	a
¹⁵⁷ Eu	0.394	0.454	0.539	0.645	-	-	-	-	-	-	
C: 3/2[411]	0.394	0.454	0.538	0.645	0.775	0.927	1.101	1.296	1.511	1.745	
¹⁵⁷ Eu	1.057	-	1.145	1.322	-	-	-	-	-	-	
D: 1/2[420]	1.027	1.127	1.145	1.322	1.347	1.573	1.603	1.867	1.901	2.195	
¹⁵⁷ Gd	0.0	0.055	0.132	0.227	0.347	0.479	0.641	0.802	1.003	1.186	25/2
A: 3/2[521]	0.0	0.055	0.131	0.228	0.345	0.481	0.634	0.805	0.993	1.196	
¹⁵⁷ Gd	0.064	0.116	0.180	0.276	0.360	-	-	-	-	-	
B: 5/2[642]	0.064	0.116	0.184	0.266	0.364	0.476	0.604	0.747	0.904	1.077	a
¹⁵⁷ Gd	0.434	0.515	0.618	-	-	-	-	-	-	-	
D: 5/2[523]	0.434	0.515	0.618	0.744	0.893	1.065	1.259	1.476	1.715	1.977	
¹⁵⁷ Gd	0.475	0.525	0.608	-	-	-	-	-	-	-	
E: 3/2[402]	0.473	0.528	0.606	0.705	0.827	0.971	1.137	1.325	1.535	1.768	a
¹⁵⁷ Gd	0.702	0.747	-	-	0.981	-	-	-	-	-	
G: 1/2[521]	0.702	0.747	0.814	0.889	0.981	1.074	1.184	1.292	1.416	1.536	a
¹⁵⁷ Gd	0.793	0.809	0.839	-	0.968	1.060	-	-	-	-	
H: 1/2[530]	0.786	0.812	0.846	0.905	0.966	1.059	1.146	1.273	1.388	1.549	a, c
¹⁵⁷ Tb	0.0	0.061	0.144	0.252	0.377	0.532	0.693	0.890	1.083	1.315	59/2
A+B: 3/2[411]	-0.002	0.061	0.147	0.255	0.384	0.532	0.698	0.881	1.080	1.293	
¹⁵⁷ Tb	0.326	0.358	0.426	0.518	0.648	0.783	0.974	1.141	1.388	1.577	51/2
C+D: 5/2[532]	0.292	0.360	0.447	0.553	0.677	0.819	0.979	1.157	1.351	1.561	
¹⁵⁷ Tb	0.327	0.408	0.514	0.643	0.790	0.955	1.137	1.337	1.551	1.780	31/2
E+F: 5/2[413]	0.326	0.410	0.516	0.643	0.790	0.954	1.136	1.334	1.548	1.776	
¹⁵⁷ Tb	0.572	0.700	0.851	1.026	1.222	1.433	1.665	1.906	2.164	2.429	33/2
G+H: 7/2[523]	0.569	0.701	0.856	1.031	1.224	1.433	1.659	1.898	2.152	2.418	
¹⁵⁷ Tb	0.659	0.764	0.892	1.052	1.229	1.437	1.668	1.920	2.189	2.472	33/2
I+J: 7/2[404]	0.652	0.764	0.900	1.059	1.240	1.442	1.665	1.908	2.170	2.450	
¹⁵⁷ Tb	0.0	0.082	0.187	0.316	0.467	0.643	0.837	1.048	1.275	1.516	x, 41/2
K+L: 5/2 ⁺	-0.004	0.082	0.191	0.321	0.472	0.641	0.829	1.034	1.255	1.491	
¹⁵⁷ Tb	0.598	0.637	0.697	0.794	0.896	-	-	-	-	-	
M: 1/2[411]	0.597	0.638	0.697	0.793	0.896	1.042	1.187	1.378	1.560	1.792	
¹⁵⁷ Tb	0.993	1.045	1.120	-	-	-	-	-	-	-	
R: 3/2 ⁺	0.992	1.045	1.120	1.215	1.332	1.470	1.630	1.810	2.012	2.235	a
¹⁵⁷ Dy	0.0	0.061	0.148	0.258	0.401	0.548	0.750	0.921	1.175	1.360	
A: 3/2[521]	-0.001	0.062	0.149	0.259	0.394	0.551	0.730	0.930	1.152	1.393	
¹⁵⁷ Dy	0.199	0.375	0.571	0.785	1.016	1.263	1.522	1.792	-	-	
E: 11/2[505]	0.199	0.376	0.571	0.785	1.015	1.261	1.521	1.796	2.084	2.384	
¹⁵⁷ Dy	0.341	0.420	0.519	-	-	-	-	-	-	-	
G: 5/2[523]	0.341	0.420	0.519	0.636	0.770	0.920	1.084	1.263	1.454	1.658	
¹⁵⁷ Dy	0.350	0.432	0.554	-	-	-	-	-	-	-	
I: 3/2[532]	0.349	0.434	0.553	0.705	0.892	1.112	1.367	1.655	1.977	2.333	a
¹⁵⁷ Dy	0.464	0.518	0.565	0.769	-	-	-	-	-	-	
J: 1/2[521]	0.444	0.531	0.578	0.742	0.810	1.025	1.109	1.364	1.460	1.746	
¹⁵⁷ Dy	0.897	0.990	1.123	-	-	-	-	-	-	-	
L: 5/2[512]	0.895	0.994	1.121	1.276	1.460	1.672	1.912	2.180	2.476	2.801	a
¹⁵⁷ Dy	1.569	1.632	1.701	-	-	-	-	-	-	-	
M: 3/2 ⁻	1.569	1.632	1.701	1.776	1.858	1.944	2.035	2.131	2.231	2.335	b
¹⁵⁷ Dy	0.188	0.211	0.162	0.297	0.239	0.512	0.436	0.844	0.747	1.282	81/2
P: 5/2 ⁺	0.056	0.107	0.173	0.253	0.348	0.458	0.582	0.721	0.875	1.158	a, c

ROTATIONAL BANDS IN ODD-MASS NUCLEI

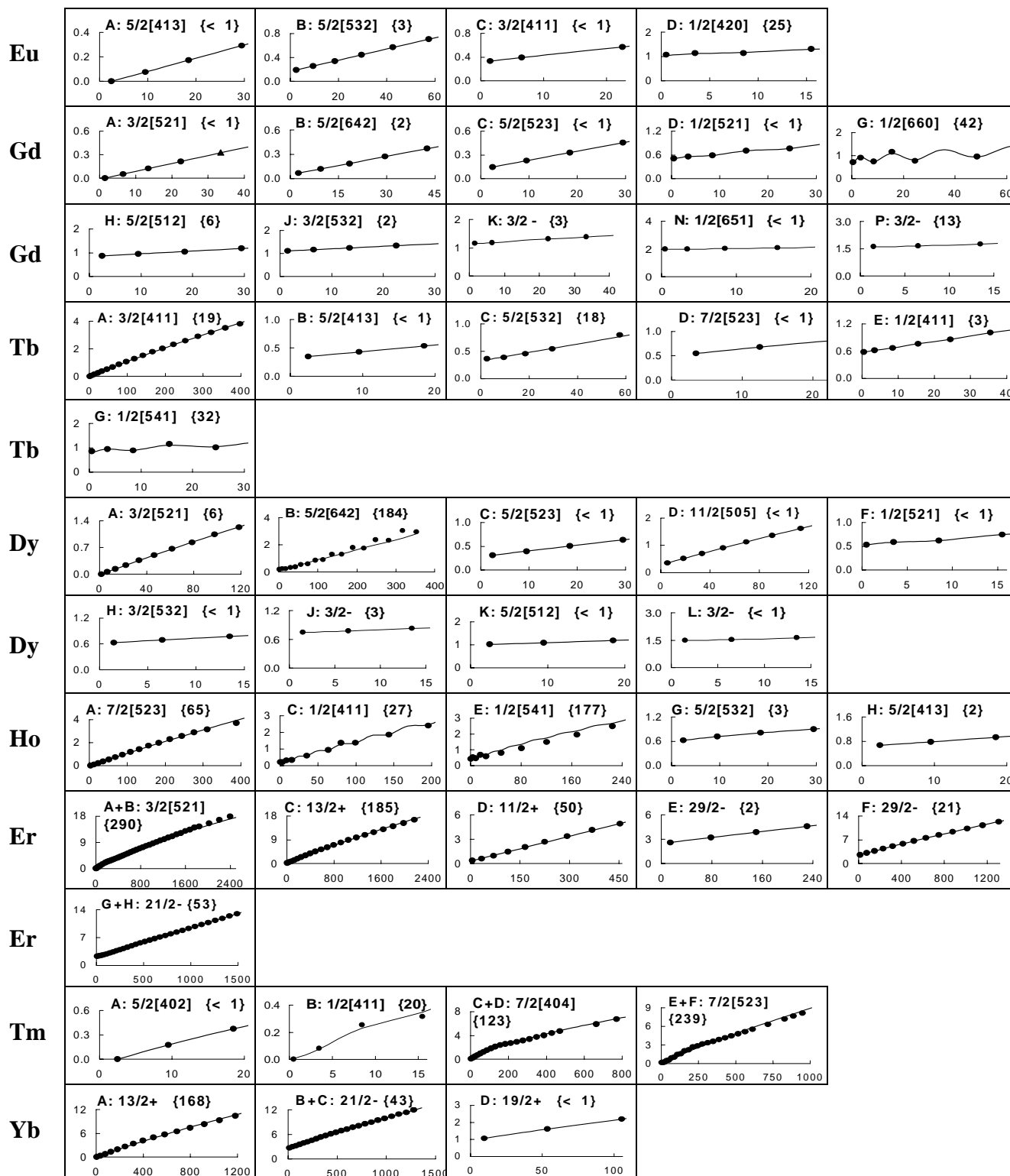
A=157 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵⁷ Ho	0.0	0.084	0.188	0.356	0.504	0.749	0.928	1.238	1.441	1.799	35/2
A+B: 7/2[523]	-0.018	0.084	0.207	0.354	0.522	0.714	0.927	1.164	1.422	1.704	a
¹⁵⁷ Ho	0.053	0.204	0.375	0.567	0.787	1.002	1.276	1.489	1.822	2.022	27/2
C+D: 5/2[402]	0.053	0.204	0.377	0.570	0.780	1.007	1.248	1.502	1.769	2.048	
¹⁵⁷ Ho	0.067	0.228	0.408	0.610	0.832	1.070	1.328	1.593	1.876	2.160	81/2
E+F: 7/2[404]	0.066	0.234	0.417	0.615	0.827	1.051	1.287	1.535	1.792	2.060	
¹⁵⁷ Ho	0.175	-	0.358	-	0.662	-	-	-	-	-	
G: 3/2[411]	0.175	0.251	0.358	0.495	0.662	0.858	1.083	1.337	1.619	1.929	
¹⁵⁷ Ho	0.482	-	0.525	-	0.654	-	0.873	-	1.180	-	73/2
H: 1/2[541]	0.452	0.834	0.457	1.199	0.631	1.619	0.913	2.089	1.273	2.603	
¹⁵⁷ Ho	0.910	-	1.342	-	1.852	-	2.405	-	-	-	
I: 15/2 ⁻	0.910	1.118	1.345	1.588	1.847	2.120	2.408	2.710	3.024	3.351	b
¹⁵⁷ Ho	2.270	2.370	2.514	2.693	2.903	3.142	3.407	3.695	4.004	4.331	73/2
J+K: 23/2 ⁺	2.143	2.329	2.530	2.747	2.978	3.224	3.484	3.760	4.051	4.356	a
¹⁵⁷ Ho	2.368	2.555	2.721	2.928	3.164	3.408	3.711	3.995	4.340	4.684	73/2
L+M: 25/2 ⁺	2.316	2.518	2.735	2.967	3.214	3.476	3.752	4.043	4.349	4.669	
¹⁵⁷ Ho	2.697	2.853	3.016	3.220	3.457	3.721	3.995	4.311	4.632	4.993	79/2
N+O: 29/2 ⁻	2.539	2.765	3.005	3.260	3.529	3.813	4.112	4.425	4.753	5.095	a
¹⁵⁷ Ho	3.709	4.000	4.335	4.644	4.977	5.315	5.678	6.045	6.451	6.844	
P+Q: 37/2 ⁻	3.710	4.002	4.310	4.632	4.969	5.322	5.689	6.072	6.469	6.881	a
¹⁵⁷ Er	0.0	-	0.266	-	0.681	-	1.209	-	1.831	-	x, 85/2
B: 13/2 ⁺	-0.034	0.125	0.303	0.501	0.717	0.951	1.201	1.470	1.753	2.054	b, c
¹⁵⁷ Er	0.358	-	0.515	-	0.894	-	-	-	1.924	-	x, 89/2
C+D: 9/2 ⁻	0.327	0.448	0.587	0.746	0.923	1.116	1.326	1.552	1.792	2.047	
¹⁵⁷ Er	1.307	-	1.730	-	2.245	-	2.847	-	3.525	-	59/2
E: 19/2	1.296	1.512	1.746	1.998	2.267	2.552	2.854	3.172	3.505	3.853	
¹⁵⁷ Er	1.030	-	1.561	-	2.172	-	-	-	-	-	
F: 19/2 ⁺	1.030	1.285	1.561	1.857	2.172	2.506	2.857	3.227	3.613	4.015	
¹⁵⁷ Er	2.396	2.500	2.650	2.842	3.068	3.329	3.614	3.922	4.254	4.602	53/2
I: 23/2 ⁻	2.264	2.462	2.675	2.905	3.150	3.411	3.688	3.980	4.289	4.613	a
¹⁵⁷ Tm	0.0	0.406	0.393	0.910	0.914	1.511	1.525	2.181	2.207	-	x, 31/2
A+B: 11/2 ⁻	0.050	0.264	0.499	0.752	1.024	1.311	1.614	1.932	2.264	2.608	
¹⁵⁷ Tm	3.143	3.297	3.639	3.878	4.233	4.509	4.877	5.168	5.535	5.976	x, 73/2
C+D: 31/2 ⁻	3.072	3.346	3.631	3.928	4.235	4.554	4.882	5.221	5.570	5.928	
¹⁵⁷ Tm	1.574	1.851	2.036	2.288	2.544	2.757	-	-	-	-	
F+G: 19/2 ⁺	1.579	1.827	2.062	2.294	2.526	2.760	2.996	3.235	3.478	3.724	
¹⁵⁷ Tm	2.339	-	2.814	3.210	3.383	3.788	4.025	4.427	4.728	5.121	57/2
H+I: 27/2 ⁺	2.334	2.585	2.851	3.133	3.431	3.744	4.072	4.415	4.773	5.145	
¹⁵⁷ Hf	0.111	-	0.954	-	1.590	-	1.860	-	2.706	-	39/2
B: 9/2 ⁻	0.112	0.448	0.752	1.051	1.351	1.656	1.967	2.284	2.607	2.937	
¹⁵⁷ Hf	2.682	-	-	-	3.561	-	4.217	-	-	-	
D: 23/2 ⁻	2.672	2.881	3.106	3.348	3.607	3.883	4.175	4.484	4.809	5.152	a
¹⁵⁷ Hf	2.875	-	4.186	-	4.798	-	5.020	-	-	-	
E: 29/2 ⁺	2.992	3.460	3.865	4.244	4.608	4.965	5.317	5.666	6.015	6.363	
¹⁵⁷ Hf	5.416	-	5.815	6.107	6.499	-	-	-	-	-	
F: 43/2	5.378	5.624	5.881	6.149	6.428	6.718	7.018	7.330	7.652	7.986	a

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=159

Helmer R.G. //NDS, 1994, v.72, p.83



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=159

Helmer R.G. //NDS, 1994, v.72, p.83

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹⁵⁹ Eu	0.0	0.075	0.172	0.291	-	-	-	-	-	-	
A: 5/2[413]	0.0	0.075	0.172	0.291	0.431	0.592	0.775	0.980	1.206	1.453	a
¹⁵⁹ Eu	0.190	0.255	0.337	0.442	0.571	0.704	-	-	-	-	
B: 5/2[532]	0.189	0.255	0.339	0.443	0.565	0.706	0.866	1.044	1.241	1.457	a
¹⁵⁹ Eu	0.334	0.392	-	0.571	-	-	-	-	-	-	
C: 3/2[411]	0.334	0.392	0.472	0.571	0.688	0.823	0.972	1.136	1.313	1.503	
¹⁵⁹ Eu	1.076	1.140	1.140	1.310	-	-	-	-	-	-	
D: 1/2[420]	1.040	1.119	1.164	1.300	1.363	1.534	1.610	1.808	1.894	2.115	
¹⁵⁹ Gd	0.0	0.051	0.122	0.212	0.328	-	-	-	-	-	
A: 3/2[521]	0.0	0.051	0.122	0.213	0.323	0.453	0.603	0.772	0.959	1.165	
¹⁵⁹ Gd	0.068	0.119	0.185	0.273	0.372	-	-	-	-	-	
B: 5/2[642]	0.067	0.120	0.188	0.271	0.369	0.482	0.610	0.753	0.911	1.084	a
¹⁵⁹ Gd	0.146	0.228	0.328	0.456	-	-	-	-	-	-	
C: 5/2[523]	0.147	0.227	0.329	0.455	0.604	0.775	0.969	1.186	1.426	1.688	
¹⁵⁹ Gd	0.508	0.558	0.589	0.705	0.761	-	-	-	-	-	
D: 1/2[521]	0.508	0.558	0.589	0.705	0.761	0.941	1.020	1.262	1.364	1.664	
¹⁵⁹ Gd	0.782	1.002	0.818	1.282	0.855	-	1.056	-	-	-	
G: 1/2[660]	0.761	1.038	0.802	1.204	0.900	1.386	1.032	1.582	1.189	1.791	
¹⁵⁹ Gd	0.873	0.948	1.044	1.186	-	-	-	-	-	-	
H: 5/2[512]	0.869	0.950	1.053	1.179	1.328	1.500	1.695	1.913	2.153	2.417	a
¹⁵⁹ Gd	1.111	1.163	1.238	1.341	-	-	-	-	-	-	
J: 3/2[532]	1.109	1.164	1.241	1.339	1.459	1.601	1.765	1.951	2.158	2.388	a
¹⁵⁹ Gd	1.145	1.176	-	1.301	1.390	-	-	-	-	-	
K: 3/2 ⁻	1.141	1.180	1.234	1.303	1.388	1.488	1.603	1.734	1.881	2.042	b
¹⁵⁹ Gd	1.978	1.992	2.042	2.081	-	-	-	-	-	-	
N: 1/2[651]	1.977	1.993	2.043	2.081	2.169	2.229	2.357	2.439	2.607	2.710	a
¹⁵⁹ Gd	1.603	1.638	1.751	-	-	-	-	-	-	-	
P: 3/2 ⁻	1.593	1.656	1.743	1.856	1.993	2.156	2.343	2.556	2.793	3.055	b
¹⁵⁹ Tb	0.0	0.058	0.138	0.241	0.362	0.510	0.669	0.860	1.052	1.282	39/2
A: 3/2[411]	0.0	0.058	0.139	0.241	0.365	0.509	0.672	0.854	1.053	1.269	
¹⁵⁹ Tb	0.348	0.428	0.535	-	-	-	-	-	-	-	
B: 5/2[413]	0.348	0.429	0.534	0.662	0.814	0.988	1.186	1.408	1.652	1.920	a
¹⁵⁹ Tb	0.363	0.388	0.454	0.545	-	0.799	-	-	-	-	
C: 5/2[532]	0.346	0.400	0.469	0.553	0.653	0.769	0.899	1.045	1.207	1.383	a
¹⁵⁹ Tb	0.548	0.678	0.822	-	-	-	-	-	-	-	
D: 7/2[523]	0.547	0.678	0.822	0.979	1.148	1.327	1.517	1.716	1.924	2.140	
¹⁵⁹ Tb	0.581	0.618	0.674	0.761	0.857	1.009	-	-	-	-	
E: 1/2[411]	0.579	0.619	0.672	0.764	0.860	1.005	1.144	1.341	1.522	1.772	a
¹⁵⁹ Tb	0.855	0.946	0.891	1.156	1.018	-	-	-	-	-	
G: 1/2[541]	0.811	0.948	0.899	1.107	1.043	1.298	1.222	1.512	1.427	1.746	c
¹⁵⁹ Dy	0.0	0.057	0.136	0.236	0.361	0.498	0.667	0.832	1.042	1.229	
A: 3/2[521]	0.0	0.057	0.136	0.237	0.358	0.499	0.659	0.837	1.032	1.243	
¹⁵⁹ Dy	0.178	0.209	0.239	0.328	0.365	0.543	0.576	0.860	0.879	1.274	45/2
B: 5/2[642]	0.143	0.196	0.263	0.345	0.443	0.555	0.682	0.825	0.982	1.154	a
¹⁵⁹ Dy	0.310	0.395	0.505	0.635	-	-	-	-	-	-	
C: 5/2[523]	0.310	0.396	0.505	0.635	0.786	0.957	1.147	1.353	1.577	1.816	
¹⁵⁹ Dy	0.353	0.516	0.700	0.903	1.125	1.364	1.618	-	-	-	
D: 11/2[505]	0.353	0.516	0.700	0.903	1.124	1.363	1.619	1.890	2.176	2.477	
¹⁵⁹ Dy	0.533	0.586	0.621	0.746	-	-	-	-	-	-	
F: 1/2[521]	0.533	0.586	0.621	0.746	0.809	1.005	1.095	1.362	1.481	1.819	a
¹⁵⁹ Dy	0.627	0.689	0.773	-	-	-	-	-	-	-	
H: 3/2[532]	0.627	0.689	0.773	0.877	0.999	1.138	1.292	1.459	1.640	1.833	

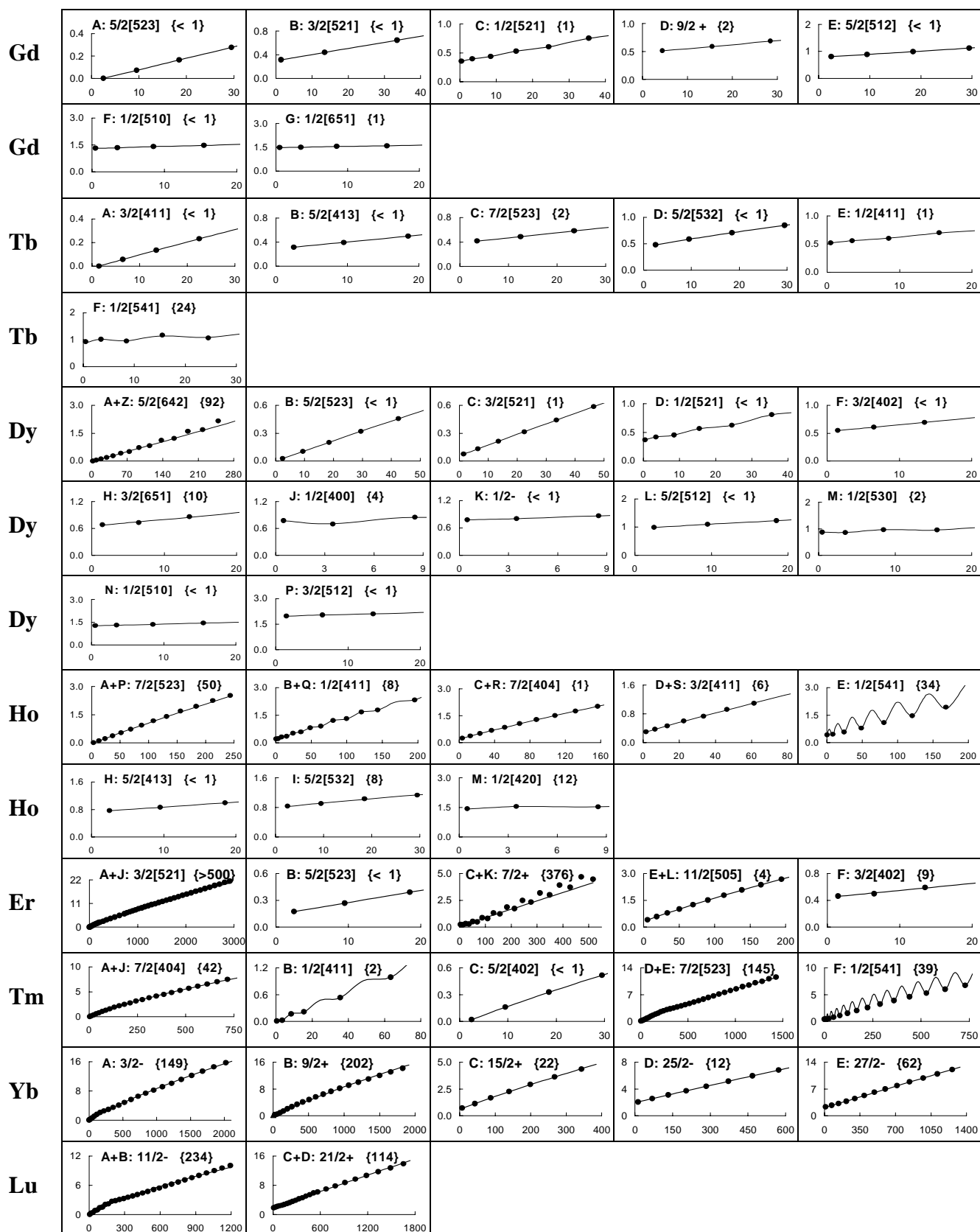
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=159 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁵⁹ Dy J: 3/2 ⁻	0.746 0.744	0.773 0.777	0.826 0.824	- 0.884	- 0.958	- 1.045	- 1.146	- 1.260	- 1.387	- 1.527	a, b
¹⁵⁹ Dy K: 5/2[512]	1.016 1.016	1.091 1.091	1.189 1.189	- 1.308	- 1.448	- 1.610	- 1.794	- 2.000	- 2.227	- 2.475	a
¹⁵⁹ Dy L: 3/2 ⁻	1.473 1.473	1.535 1.535	1.621 1.621	- 1.730	- 1.861	- 2.014	- 2.187	- 2.379	- 2.590	- 2.818	b
¹⁵⁹ Ho A: 7/2[523]	0.0 -0.004	0.097 0.100	0.219 0.226	0.369 0.373	0.537 0.541	0.740 0.729	0.945 0.936	1.198 1.162	1.431 1.406	1.727 1.667	39/2
¹⁵⁹ Ho C: 1/2[411]	0.206 0.201	0.213 0.210	0.312 0.328	0.341 0.349	- 0.557	0.592 0.590	- 0.884	0.941 0.927	1.360 1.301	1.368 1.354	27/2
¹⁵⁹ Ho E: 1/2[541]	0.424 0.278	0.521 0.365	0.463 0.424	0.680 0.584	0.587 0.669	- 0.878	0.798 0.982	- 1.228	1.103 1.347	- 1.623	29/2
¹⁵⁹ Ho G: 5/2[532]	0.624 0.625	0.718 0.719	0.815 0.809	0.899 0.903	- 0.999	- 1.100	- 1.204	- 1.312	- 1.423	- 1.537	
¹⁵⁹ Ho H: 5/2[413]	0.671 0.670	0.781 0.784	0.934 0.932	- 1.112	- 1.325	- 1.570	- 1.849	- 2.160	- 2.504	- 2.880	a
¹⁵⁹ Er A+B: 3/2[521]	0.0 -0.007	0.059 0.060	0.144 0.152	0.258 0.267	0.429 0.405	0.574 0.562	0.834 0.739	0.990 0.934	- 1.145	1.479 1.372	97/2
¹⁵⁹ Er C: 13/2 ⁺	0.226 0.207	- 0.343	0.435 0.496	- 0.666	0.785 0.854	- 1.058	1.250 1.279	- 1.516	1.807 1.770	- 2.039	93/2
¹⁵⁹ Er D: 11/2 ⁺	0.362 0.344	- 0.477	0.590 0.631	- 0.805	0.961 1.000	- 1.215	1.447 1.450	- 1.706	2.025 1.983	- 2.280	43/2 a
¹⁵⁹ Er E: 29/2 ⁻	2.582 2.582	- 2.884	3.200 3.198	- 3.526	3.864 3.866	- 4.219	4.585 4.584	- 4.960	- 5.347	- 5.746	
¹⁵⁹ Er F: 29/2 ⁻	2.552 2.546	- 2.815	3.099 3.098	- 3.396	3.695 3.708	- 4.032	4.353 4.370	- 4.721	5.075 5.084	- 5.459	77/2
¹⁵⁹ Er G+H: 21/2 ⁻	2.292 2.189	2.400 2.358	2.520 2.542	2.694 2.740	2.875 2.954	3.110 3.181	3.346 3.424	3.632 3.681	3.913 3.952	4.238 4.238	x, 79/2
¹⁵⁹ Tm A: 5/2[402]	0.0 0.0	0.177 0.177	0.375 0.375	- 0.591	- 0.824	- 1.074	- 1.337	- 1.614	- 1.904	- 2.205	
¹⁵⁹ Tm B: 1/2[411]	0.0 0.004	0.078 0.075	0.254 0.230	0.317 0.348	- 0.559	- 0.707	- 0.959	- 1.129	- 1.413	- 1.602	x
¹⁵⁹ Tm C+D: 7/2[404]	0.053 0.052	0.247 0.269	0.457 0.481	0.691 0.698	0.946 0.922	1.218 1.154	1.507 1.395	1.801 1.643	2.110 1.898	2.374 2.161	55/2
¹⁵⁹ Tm E+F: 7/2[523]	0.166 0.108	0.183 0.207	0.233 0.327	0.464 0.467	0.563 0.627	0.909 0.805	1.025 1.003	1.458 1.218	1.583 1.450	2.076 1.699	61/2
¹⁵⁹ Yb A: 13/2 ⁺	0.0 -0.025	- 0.142	0.299 0.329	- 0.536	0.747 0.762	- 1.007	1.296 1.269	- 1.549	1.929 1.846	- 2.159	x, 69/2
¹⁵⁹ Yb B+C: 21/2 ⁻	1.556 1.551	- 1.752	1.976 1.968	- 2.200	2.457 2.446	2.700 2.706	2.960 2.981	3.233 3.269	3.532 3.570	3.857 3.884	x, 77/2
¹⁵⁹ Yb D: 19/2 ⁺	1.063 1.063	- 1.335	1.612 1.612	- 1.895	2.185 2.185	- 2.482	- 2.787	- 3.099	- 3.419	- 3.746	x

A=161

Reich C.W., Helmer R.G. //NDS, 2000, v.90, p.645



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=161

Reich C.W., Helmer R.G. //NDS, 2000, v.90, p.645

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶¹ Gd	0.0	0.072	0.164	0.276	-	-	-	-	-	-	
A: 5/2[523]	0.0	0.072	0.164	0.276	0.408	0.558	0.728	0.917	1.124	1.349	
¹⁶¹ Gd	0.314	-	0.438	-	0.645	-	-	-	-	-	
B: 3/2[521]	0.314	0.366	0.438	0.531	0.645	0.779	0.934	1.110	1.306	1.523	a
¹⁶¹ Gd	0.355	0.395	0.438	0.529	0.604	0.753	-	-	-	-	
C: 1/2[521]	0.355	0.395	0.437	0.530	0.605	0.752	0.861	1.060	1.203	1.455	a
¹⁶¹ Gd	0.510	0.585	0.681	-	-	-	-	-	-	-	
D: 7/2[633]	0.509	0.587	0.680	0.786	0.907	1.042	1.191	1.355	1.533	1.725	a
¹⁶¹ Gd	0.809	0.889	0.994	1.123	-	-	-	-	-	-	
E: 5/2[512]	0.808	0.890	0.994	1.122	1.273	1.448	1.645	1.866	2.111	2.378	a
¹⁶¹ Gd	1.311	1.338	1.403	1.466	-	-	-	-	-	-	
F: 1/2[510]	1.311	1.338	1.403	1.466	1.582	1.680	1.846	1.978	2.192	2.357	
¹⁶¹ Gd	1.490	1.501	1.556	1.591	-	-	-	-	-	-	
G: 1/2[651]	1.488	1.503	1.557	1.590	1.687	1.740	1.881	1.952	2.136	2.227	a
¹⁶¹ Tb	0.0	0.056	0.134	0.231	-	-	-	-	-	-	
A: 3/2[411]	0.0	0.056	0.134	0.231	0.346	0.479	0.629	0.793	0.971	1.163	
¹⁶¹ Tb	0.315	0.394	0.499	-	-	-	-	-	-	-	
B: 5/2[413]	0.315	0.395	0.499	0.625	0.774	0.947	1.142	1.361	1.602	1.866	a
¹⁶¹ Tb	0.417	0.489	0.584	-	-	-	-	-	-	-	
C: 7/2[523]	0.416	0.491	0.582	0.690	0.815	0.956	1.114	1.289	1.480	1.688	a
¹⁶¹ Tb	0.480	0.586	0.707	0.847	-	-	-	-	-	-	
D: 5/2[532]	0.480	0.585	0.708	0.847	0.999	1.164	1.340	1.526	1.723	1.928	
¹⁶¹ Tb	0.520	0.558	0.602	0.698	-	-	-	-	-	-	
E: 1/2[411]	0.519	0.559	0.603	0.697	0.775	0.923	1.036	1.238	1.386	1.642	a
¹⁶¹ Tb	0.920	1.020	0.950	1.178	1.064	-	-	-	-	-	
F: 1/2[541]	0.892	1.013	0.968	1.143	1.084	1.295	1.228	1.466	1.391	1.653	
¹⁶¹ Dy	0.0	0.044	0.100	0.184	0.267	0.407	0.508	0.719	0.826	1.118	33/2
A+Z: 5/2[642]	-0.011	0.043	0.112	0.197	0.296	0.412	0.542	0.689	0.850	1.027	a
¹⁶¹ Dy	0.026	0.103	0.201	0.321	0.457	-	-	-	-	-	
B: 5/2[523]	0.026	0.103	0.201	0.320	0.458	0.614	0.788	0.979	1.185	1.408	
¹⁶¹ Dy	0.075	0.132	0.213	0.315	0.443	0.587	-	-	-	-	
C: 3/2[521]	0.075	0.132	0.213	0.316	0.441	0.589	0.758	0.948	1.160	1.392	
¹⁶¹ Dy	0.367	0.418	0.451	0.568	0.628	0.808	-	-	-	-	
D: 1/2[521]	0.367	0.418	0.451	0.568	0.628	0.808	0.892	1.132	1.239	1.534	
¹⁶¹ Dy	0.550	0.610	0.696	-	-	-	-	-	-	-	
F: 3/2[402]	0.550	0.611	0.696	0.805	0.939	1.097	1.279	1.485	1.716	1.971	a
¹⁶¹ Dy	0.678	0.731	0.858	-	-	-	-	-	-	-	
H: 3/2[651]	0.671	0.746	0.850	0.984	1.147	1.341	1.564	1.817	2.100	2.412	a
¹⁶¹ Dy	0.773	0.699	0.849	-	-	-	-	-	-	-	
J: 1/2[400]	0.767	0.704	0.851	0.768	0.950	0.852	1.061	0.951	1.181	1.062	
¹⁶¹ Dy	0.777	0.804	0.868	-	-	-	-	-	-	-	
K: 1/2 ⁻	0.777	0.804	0.868	0.909	0.991	1.041	1.138	1.194	1.302	1.363	
¹⁶¹ Dy	0.791	0.878	0.988	-	-	-	-	-	-	-	
L: 5/2[512]	0.791	0.879	0.988	1.117	1.265	1.429	1.608	1.802	2.010	2.230	
¹⁶¹ Dy	0.873	0.859	0.970	0.957	-	-	-	-	-	-	
M: 1/2[530]	0.871	0.860	0.972	0.955	1.104	1.082	1.257	1.232	1.428	1.401	
¹⁶¹ Dy	1.269	1.303	1.363	1.446	-	-	-	-	-	-	
N: 1/2[510]	1.268	1.304	1.363	1.446	1.553	1.682	1.837	2.014	2.217	2.440	a
¹⁶¹ Dy	1.977	2.039	2.113	-	-	-	-	-	-	-	
P: 3/2[512]	1.977	2.039	2.113	2.197	2.290	2.390	2.497	2.610	2.729	2.854	
¹⁶¹ Ho	0.0	0.100	0.222	0.368	0.535	0.726	0.932	1.167	1.404	1.678	31/2
A+P: 7/2[523]	-0.005	0.100	0.226	0.373	0.540	0.726	0.929	1.150	1.387	1.640	

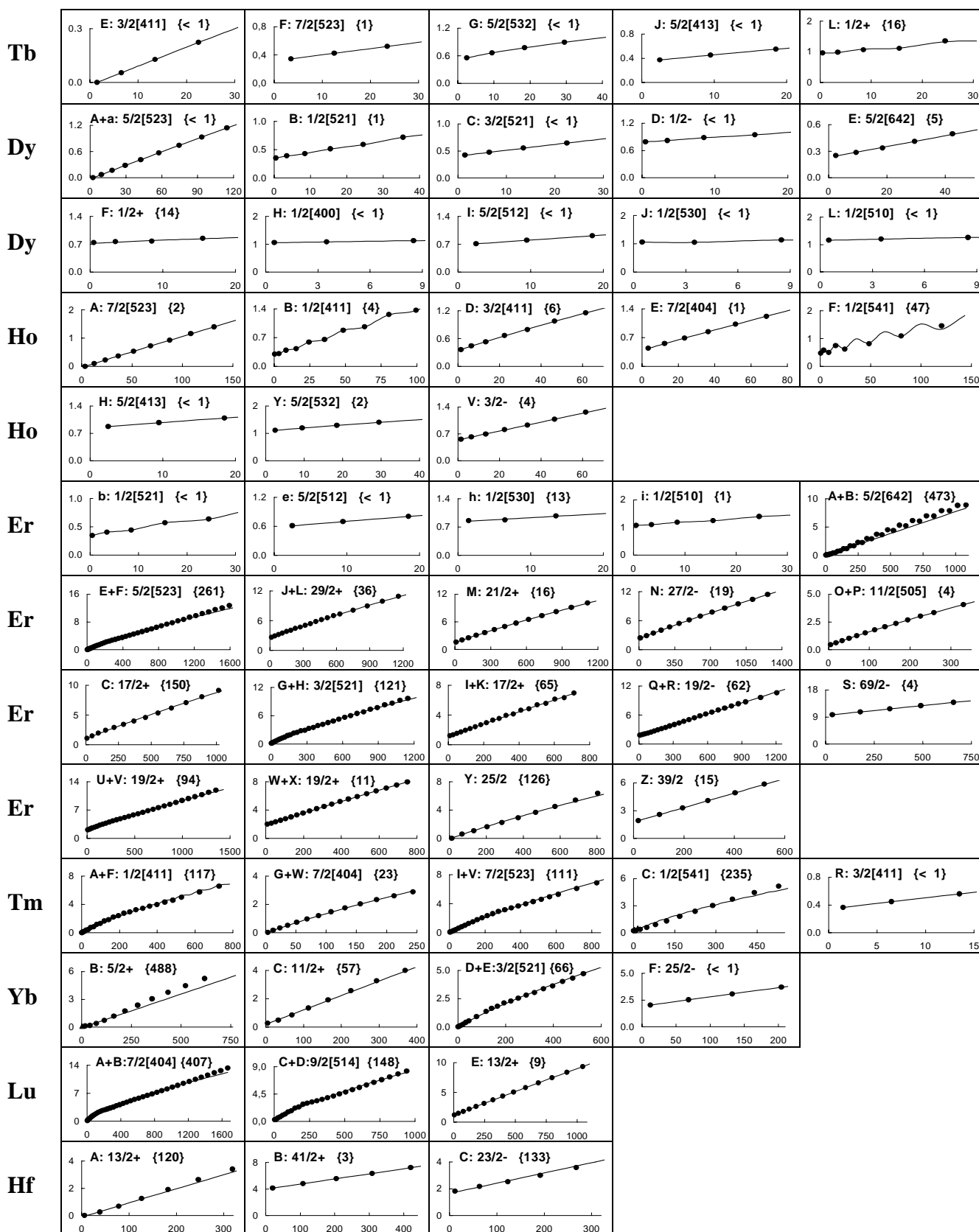
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=161 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶¹ Ho	0.211	0.222	0.317	0.353	0.520	0.584	0.821	0.907	1.211	1.312	27/2
B+Q: 1/2[411]	0.208	0.224	0.319	0.356	0.525	0.582	0.822	0.899	1.206	1.301	
¹⁶¹ Ho	0.253	0.371	0.512	0.674	0.857	1.060	1.278	1.514	1.762	2.033	25/2
C+R: 7/2[404]	0.253	0.371	0.512	0.675	0.857	1.059	1.278	1.514	1.765	2.032	
¹⁶¹ Ho	0.299	0.373	0.463	0.599	0.733	0.921	1.096	-	-	-	
D+S: 3/2[411]	0.299	0.371	0.469	0.593	0.740	0.910	1.101	1.312	1.541	1.788	
¹⁶¹ Ho	0.424	-	0.459	-	0.580	-	0.788	-	1.084	-	25/2
E: 1/2[541]	0.433	0.739	0.437	1.038	0.580	1.383	0.811	1.770	1.108	2.194	
¹⁶¹ Ho	0.761	0.860	0.992	-	-	-	-	-	-	-	
H: 5/2[413]	0.760	0.861	0.991	1.150	1.338	1.555	1.801	2.076	2.380	2.712	a
¹⁶¹ Ho	0.827	0.906	1.030	1.128	-	-	-	-	-	-	
I: 5/2[532]	0.824	0.914	1.018	1.133	1.259	1.394	1.538	1.691	1.850	2.017	
¹⁶¹ Ho	1.436	1.545	1.529	-	-	-	-	-	-	-	
M: 1/2[420]	1.415	1.545	1.529	1.745	1.722	1.992	1.965	2.275	2.245	2.589	
¹⁶¹ Er	0.0	0.060	0.144	0.250	0.389	0.531	0.729	0.892	1.148	1.313	107/2
A+J: 3/2[521]	0.001	0.061	0.143	0.247	0.373	0.519	0.685	0.869	1.070	1.289	
¹⁶¹ Er	0.172	0.266	0.390	-	-	-	-	-	-	-	
B: 5/2[523]	0.172	0.267	0.390	0.539	0.716	0.920	1.151	1.410	1.695	2.008	a
¹⁶¹ Er	0.217	0.189	0.297	0.268	0.509	0.466	0.849	0.784	1.302	1.208	45/2
C+K: 7/2 ⁺	0.122	0.192	0.279	0.381	0.499	0.632	0.781	0.946	1.126	1.322	
¹⁶¹ Er	0.396	0.579	0.783	1.006	1.250	1.509	1.783	2.072	2.368	2.675	
E+L: 11/2[505]	0.396	0.580	0.784	1.007	1.248	1.506	1.779	2.067	2.369	2.685	
¹⁶¹ Er	0.463	0.496	0.590	-	-	-	-	-	-	-	
F: 3/2[402]	0.457	0.509	0.583	0.678	0.794	0.930	1.088	1.267	1.467	1.688	a
¹⁶¹ Tm	0.0	0.162	0.348	0.557	0.789	1.037	1.305	1.582	1.877	2.172	53/2
A+J: 7/2[404]	-0.004	0.162	0.351	0.560	0.787	1.031	1.290	1.563	1.850	2.150	
¹⁶¹ Tm	0.007	0.023	0.167	0.211	-	0.531	-	0.989	-	-	
B: 1/2[411]	0.007	0.023	0.170	0.207	0.472	0.529	0.913	0.990	1.492	1.590	a
¹⁶¹ Tm	0.019	0.159	0.327	0.516	-	-	-	-	-	-	
C: 5/2[402]	0.019	0.159	0.326	0.516	0.727	0.956	1.202	1.464	1.740	2.029	
¹⁶¹ Tm	0.078	0.149	0.255	0.417	0.577	0.816	1.008	1.310	1.526	1.874	75/2
D+E: 7/2[523]	0.069	0.171	0.295	0.438	0.600	0.781	0.979	1.194	1.424	1.670	
¹⁶¹ Tm	0.367	-	0.376	-	0.516	-	0.756	-	1.080	-	33/2
F: 1/2[541]	0.427	0.938	0.351	1.388	0.475	1.891	0.734	2.443	1.092	3.040	
¹⁶¹ Yb	0.0	0.044	0.111	0.221	-	0.553	-	1.007	-	1.536	89/2
A: 3/2 ⁻	-0.008	0.049	0.128	0.229	0.350	0.492	0.653	0.833	1.030	1.246	
¹⁶¹ Yb	0.211	-	0.231	-	0.463	-	0.860	-	1.382	-	85/2
B: 9/2 ⁺	-0.031	0.081	0.213	0.363	0.532	0.720	0.925	1.147	1.387	1.643	a
¹⁶¹ Yb	0.703	-	1.117	-	1.649	-	2.259	-	2.919	-	39/2
C: 15/2 ⁺	0.699	0.906	1.134	1.382	1.649	1.935	2.238	2.558	2.895	3.247	
¹⁶¹ Yb	2.044	-	2.561	-	3.109	-	3.713	-	4.383	-	53/2
D: 25/2 ⁻	2.052	2.290	2.544	2.814	3.101	3.404	3.722	4.056	4.405	4.769	
¹⁶¹ Yb	2.305	-	2.687	-	3.167	-	3.767	-	4.473	-	75/2
E: 27/2 ⁻	2.235	2.465	2.710	2.971	3.247	3.540	3.848	4.173	4.513	4.869	a
¹⁶¹ Lu	0.0	0.266	0.375	0.758	0.883	1.358	1.488	2.012	2.161	2.680	y, 63/2
A+B: 11/2 ⁻	0.009	0.232	0.462	0.701	0.950	1.209	1.477	1.754	2.039	2.334	
¹⁶¹ Lu	1.828	2.011	2.194	2.325	2.485	2.700	2.951	3.206	3.541	3.835	y, 83/2
C+D: 21/2 ⁺	1.772	1.949	2.141	2.349	2.571	2.809	3.062	3.330	3.613	3.910	

A=163

Singh B., Farhan A.R. //NDS, 2000, v.89, p.1



A=163

Singh B., Farhan A.R. //NDS, 2000, v.89, p.1

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶³ Tb	0.0	0.054	0.128	0.223	-	-	-	-	-	-	
E: 3/2[411]	0.0	0.054	0.128	0.223	0.336	0.467	0.615	0.780	0.959	1.153	a
¹⁶³ Tb	0.344	0.422	0.522	-	-	-	-	-	-	-	
F: 7/2[523]	0.343	0.423	0.521	0.637	0.770	0.921	1.089	1.276	1.480	1.702	a
¹⁶³ Tb	0.552	0.662	0.771	0.890	-	-	-	-	-	-	
G: 5/2[532]	0.552	0.661	0.772	0.889	1.012	1.141	1.275	1.415	1.560	1.709	
¹⁶³ Tb	0.373	0.452	0.552	-	-	-	-	-	-	-	
J: 5/2[413]	0.373	0.452	0.552	0.672	0.810	0.966	1.139	1.328	1.532	1.749	
¹⁶³ Tb	0.960	0.987	1.065	1.112	1.351	-	-	-	-	-	
L: 1/2 ⁺	0.957	0.972	1.088	1.124	1.333	1.388	1.691	1.766	2.161	2.257	a
¹⁶³ Dy	0.0	0.073	0.167	0.282	0.415	0.569	0.740	0.931	1.137	-	
A+a: 5/2[523]	0.0	0.073	0.167	0.281	0.415	0.568	0.740	0.930	1.138	1.363	
¹⁶³ Dy	0.351	0.390	0.428	0.515	0.588	0.718	-	-	-	-	
B: 1/2[521]	0.351	0.389	0.429	0.515	0.586	0.719	0.819	0.995	1.121	1.337	
¹⁶³ Dy	0.422	0.475	0.553	0.646	-	-	-	-	-	-	
C: 3/2[521]	0.421	0.476	0.552	0.647	0.759	0.889	1.034	1.194	1.368	1.555	
¹⁶³ Dy	0.793	0.821	0.883	0.946	-	-	-	-	-	-	
D: 1/2 ⁻	0.793	0.821	0.883	0.946	1.055	1.151	1.304	1.430	1.622	1.776	
¹⁶³ Dy	0.251	0.286	0.336	0.412	0.497	-	-	-	-	-	
E: 5/2[642]	0.246	0.289	0.344	0.411	0.491	0.582	0.686	0.802	0.930	1.070	a
¹⁶³ Dy	0.738	0.766	0.781	0.851	-	-	-	-	-	-	
F: 1/2 ⁺	0.724	0.753	0.797	0.839	0.895	0.946	1.011	1.068	1.141	1.204	
¹⁶³ Dy	1.058	1.084	1.130	-	-	-	-	-	-	-	
H: 1/2[400]	1.058	1.084	1.130	1.168	1.227	1.272	1.340	1.391	1.467	1.523	
¹⁶³ Dy	0.711	0.801	0.915	-	-	-	-	-	-	-	
I: 5/2[512]	0.711	0.801	0.915	1.052	1.211	1.390	1.590	1.808	2.044	2.297	
¹⁶³ Dy	1.056	1.049	1.135	-	-	-	-	-	-	-	
J: 1/2[530]	1.056	1.049	1.135	1.125	1.235	1.223	1.350	1.336	1.478	1.463	
¹⁶³ Dy	1.161	1.196	1.258	-	-	-	-	-	-	-	
L: 1/2[510]	1.161	1.196	1.258	1.311	1.393	1.458	1.554	1.628	1.735	1.817	
¹⁶³ Ho	0.0	0.100	0.222	0.367	0.532	0.720	0.924	1.154	1.394	-	
A: 7/2[523]	0.0	0.100	0.222	0.366	0.531	0.718	0.924	1.152	1.399	1.665	
¹⁶³ Ho	0.298	0.308	0.392	0.431	0.588	0.652	0.882	0.965	1.266	1.364	
B: 1/2[411]	0.293	0.309	0.397	0.434	0.592	0.652	0.880	0.961	1.259	1.361	a
¹⁶³ Ho	0.360	0.440	0.528	0.664	0.795	0.979	1.155	-	-	-	
D: 3/2[411]	0.362	0.435	0.534	0.658	0.804	0.971	1.157	1.360	1.580	1.816	
¹⁶³ Ho	0.440	0.552	0.688	0.845	1.026	1.220	-	-	-	-	
E: 7/2[404]	0.440	0.552	0.688	0.845	1.024	1.222	1.438	1.673	1.925	2.193	
¹⁶³ Ho	0.471	0.578	0.500	0.746	0.613	-	0.810	-	1.093	-	21/2
F: 1/2[541]	0.438	0.585	0.501	0.767	0.647	0.990	0.843	1.244	1.077	1.525	
¹⁶³ Ho	0.876	0.971	1.089	-	-	-	-	-	-	-	
H: 5/2[413]	0.876	0.971	1.089	1.228	1.386	1.561	1.753	1.960	2.181	2.415	
¹⁶³ Ho	1.114	1.192	1.293	1.400	-	-	-	-	-	-	
Y: 5/2[532]	1.113	1.194	1.291	1.401	1.524	1.658	1.802	1.955	2.117	2.287	
¹⁶³ Ho	0.560	0.614	0.695	0.807	0.926	1.075	1.259	-	-	-	
V: 3/2 ⁻	0.558	0.616	0.697	0.802	0.929	1.080	1.253	1.450	1.670	1.914	a
¹⁶³ Er	0.346	0.404	0.440	0.573	0.636	-	-	-	-	-	
b: 1/2[521]	0.346	0.404	0.440	0.573	0.636	0.840	0.928	1.197	1.307	1.635	
¹⁶³ Er	0.610	0.698	0.805	-	-	-	-	-	-	-	
e: 5/2[512]	0.610	0.698	0.805	0.929	1.067	1.219	1.384	1.560	1.747	1.943	
¹⁶³ Er	0.856	0.877	0.973	-	-	-	-	-	-	-	
h: 1/2[530]	0.846	0.895	0.964	1.053	1.162	1.290	1.438	1.605	1.792	1.999	a

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=163 (continuation of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{163}Er i: 1/2[510]	1.075 1.074	1.098 1.100	1.183 1.184	1.245 1.244	1.395 1.395	- 1.490	- 1.709	- 1.838	- 2.124	- 2.288	a
^{163}Er A+B: 5/2[642]	0.069 0.038	0.092 0.092	0.120 0.161	0.199 0.246	0.247 0.346	0.412 0.461	0.464 0.591	0.735 0.737	0.777 0.899	1.163 1.075	81/2 a
^{163}Er E+F: 5/2[523]	0.0 0.002	0.084 0.085	0.190 0.190	0.320 0.315	0.466 0.460	0.640 0.623	0.821 0.804	1.032 1.000	1.243 1.212	1.480 1.439	79/2
^{163}Er J+L: 29/2 ⁺	2.629 2.645	2.913 2.910	3.214 3.188	3.469 3.477	3.810 3.777	4.068 4.089	4.439 4.412	4.700 4.745	5.089 5.088	5.407 5.441	73/2
^{163}Er M: 21/2 ⁺	1.608 1.611	- 1.819	2.044 2.042	- 2.281	2.541 2.533	- 2.800	3.074 3.079	- 3.372	3.681 3.677	- 3.995	69/2
^{163}Er N: 27/2 ⁻	2.418 2.408	- 2.648	2.891 2.901	- 3.167	3.435 3.447	- 3.739	4.037 4.044	- 4.361	4.686 4.690	- 5.031	75/2
^{163}Er O+P: 1/2[505]	0.445 0.445	0.617 0.617	0.810 0.811	1.024 1.025	1.258 1.259	1.511 1.510	1.781 1.779	2.067 2.063	2.368 2.363	2.683 2.678	37/2
^{163}Er C: 17/2 ⁺	1.077 1.115	- 1.280	1.476 1.460	- 1.656	1.953 1.868	- 2.095	2.448 2.337	- 2.594	2.928 2.865	- 3.150	69/2 b
^{163}Er G+H: 3/2[521]	0.164 0.167	0.250 0.257	0.360 0.369	0.496 0.503	0.655 0.656	0.840 0.828	1.041 1.017	1.271 1.221	1.474 1.441	1.776 1.675	69/2
^{163}Er I+K: 17/2 ⁺	1.214 1.194	1.353 1.359	1.530 1.540	1.717 1.737	1.932 1.950	2.168 2.179	2.415 2.423	2.699 2.683	2.967 2.958	3.299 3.248	55/2
^{163}Er Q+R: 19/2 ⁻	1.845 1.781	1.962 1.939	2.104 2.111	2.271 2.299	2.461 2.502	2.673 2.719	2.905 2.952	3.158 3.199	3.429 3.462	3.718 3.740	71/2 a
^{163}Er S: 69/2 ⁻	9.780 9.782	- 10.246	10.730 10.723	- 11.213	11.710 11.716	- 12.232	12.760 12.761	- 13.303	13.860 13.858	- 14.426	s
^{163}Er U+V: 19/2 ⁺	2.120 2.166	2.314 2.341	2.524 2.530	2.749 2.734	2.987 2.952	3.236 3.183	3.495 3.428	3.758 3.686	4.025 3.956	4.293 4.239	75/2
^{163}Er W+X: 19/2 ⁺	1.982 1.964	2.144 2.145	2.332 2.343	2.542 2.556	2.773 2.786	3.022 3.031	3.289 3.292	3.571 3.567	3.867 3.858	4.176 4.163	57/2
^{163}Er Y: 25/2	0.0 0.037	- 0.286	0.612 0.547	- 0.820	1.076 1.103	- 1.397	1.624 1.701	- 2.014	2.236 2.338	- 2.670	61/2
^{163}Er Z: 39/2	1.927 1.918	- 2.239	2.565 2.576	- 2.929	3.283 3.298	- 3.682	4.075 4.081	- 4.497	4.930 4.928	- 5.375	a
^{163}Tm A+F: 1/2[411]	0.0 -0.006	0.014 0.014	0.144 0.144	0.175 0.185	0.383 0.399	0.451 0.457	0.728 0.736	0.830 0.808	1.160 1.140	1.295 1.224	53/2
^{163}Tm G+W: 7/2[404]	0.023 0.023	0.165 0.167	0.331 0.334	0.521 0.522	0.733 0.730	0.963 0.956	1.211 1.199	1.474 1.458	1.750 1.731	2.034 2.017	31/2
^{163}Tm I+V: 7/2[523]	0.087 0.082	0.175 0.187	0.290 0.313	0.437 0.458	0.604 0.621	0.805 0.802	1.012 0.999	1.261 1.212	1.498 1.440	1.786 1.681	57/2
^{163}Tm C: 1/2[541]	0.326 0.075	0.248 0.154	0.498 0.223	0.369 0.370	- 0.471	0.586 0.663	- 0.787	0.900 1.012	- 1.154	- 1.407	45/2
^{163}Tm R: 3/2[411]	0.366 0.366	0.449 0.449	0.560 0.560	- 0.694	- 0.851	- 1.026	- 1.220	- 1.429	- 1.653	- 1.891	
^{163}Yb B: 5/2 ⁺	0.099 -0.050	- 0.005	0.124 0.071	- 0.151	0.168 0.246	- 0.355	0.371 0.479	- 0.618	0.716 0.771	- 0.938	53/2 a
^{163}Yb C: 11/2 ⁺	0.264 0.249	- 0.381	0.484 0.533	- 0.705	0.854 0.898	- 1.112	1.344 1.345	- 1.599	1.923 1.873	- 2.167	39/2 a
^{163}Yb D+E: 3/2[521]	0.0 -0.010	0.054 0.054	0.133 0.141	0.235 0.250	0.394 0.379	0.528 0.527	- 0.693	0.913 0.876	- 1.074	1.358 1.287	47/2
^{163}Yb F: 25/2 ⁻	2.028 2.028	- 2.269	2.525 2.524	- 2.793	3.075 3.076	- 3.371	3.680 3.680	- 4.000	- 4.332	- 4.676	

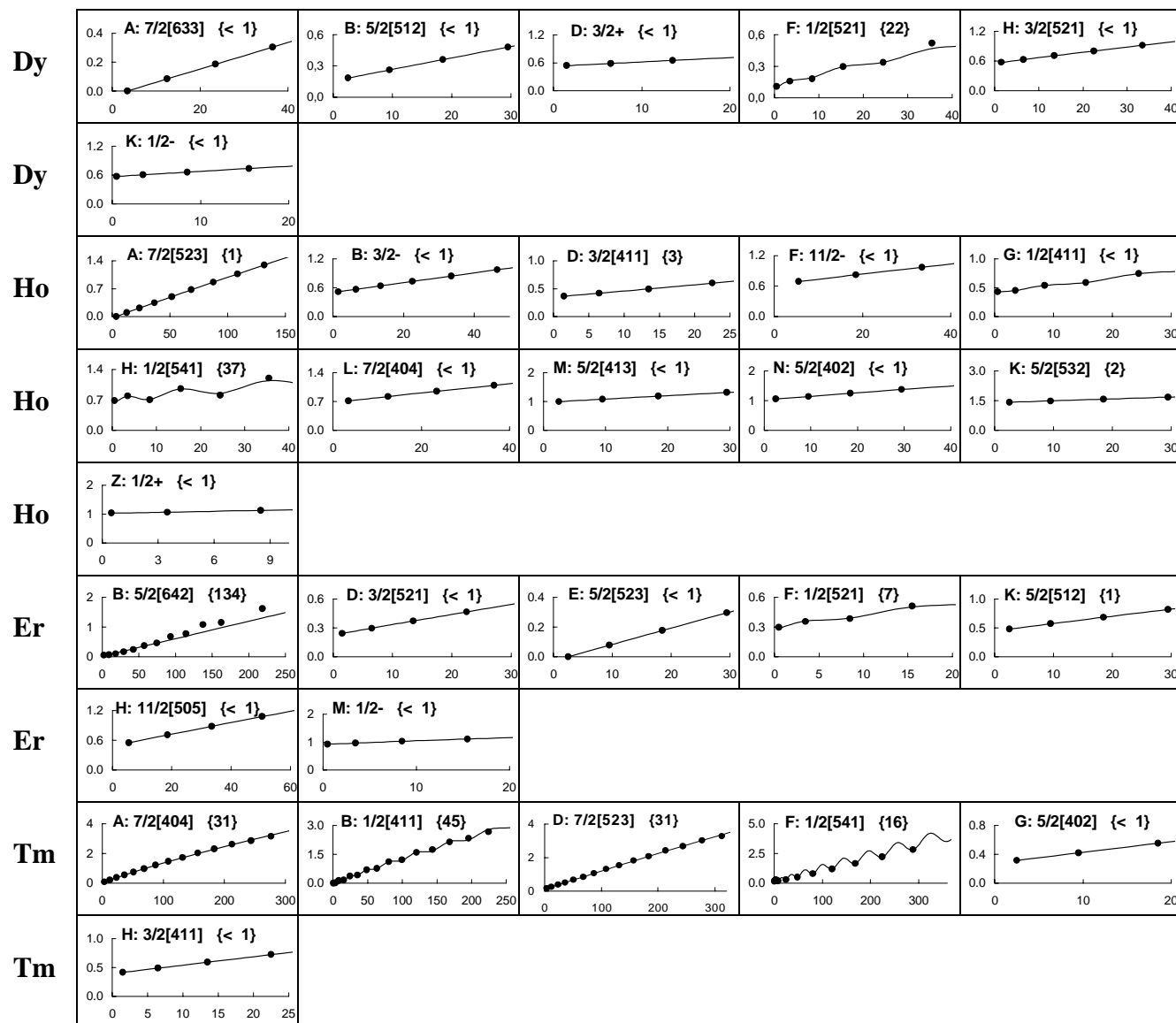
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=163 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶³ Lu	0.177	0.363	0.573	0.808	1.061	1.335	1.614	1.920	2.192	2.452	85/2
A+B: 7/2[404]	0.176	0.381	0.589	0.804	1.029	1.264	1.507	1.760	2.021	2.290	
¹⁶³ Lu	0.263	0.348	0.544	0.697	0.989	1.168	1.538	1.729	2.156	2.359	61/2
C+D: 9/2[514]	0.236	0.393	0.567	0.759	0.965	1.185	1.419	1.665	1.922	2.191	
¹⁶³ Lu	1.220	-	1.484	-	1.799	-	2.185	-	2.635	-	65/2
E: 13/2 ⁺	1.219	1.341	1.479	1.633	1.803	1.989	2.191	2.408	2.641	2.889	c, s
¹⁶³ Hf	0.0	-	0.255	-	0.689	-	1.253	-	1.912	-	y, 37/2
A: 13/2 ⁺	-0.035	0.120	0.296	0.493	0.711	0.949	1.208	1.488	1.788	2.109	a
¹⁶³ Hf	4.120	-	4.813	-	5.554	-	6.360	-	7.234	-	y
B: 41/2 ⁺	4.122	4.457	4.808	5.175	5.556	5.952	6.364	6.790	7.231	7.687	
¹⁶³ Hf	1.816	-	2.171	-	2.512	-	2.981	-	3.581	-	y, 55/2
C: 23/2 ⁻	1.746	1.936	2.141	2.361	2.596	2.847	3.113	3.394	3.690	4.001	a

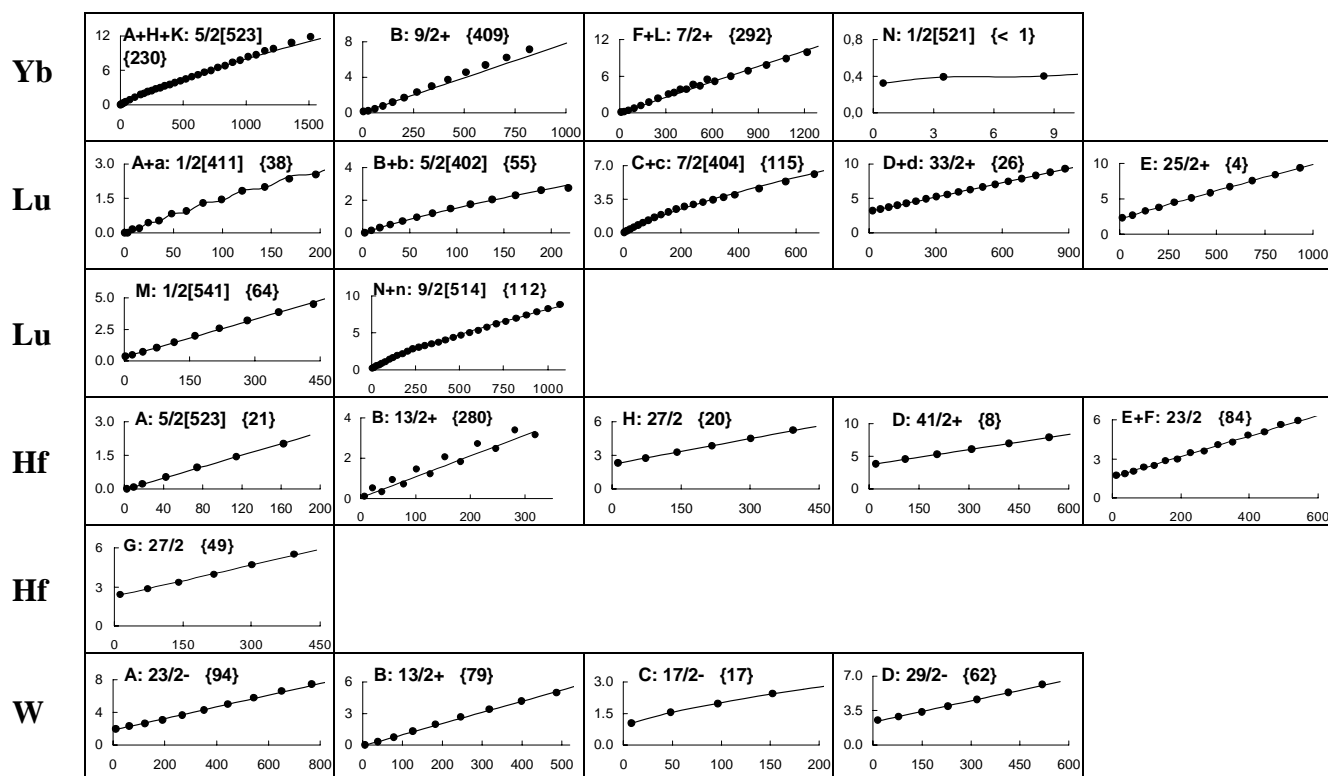
A=165

Peker L.K. //NDS, 1992, v.65, p.439



A=165 (continuation)

Peker L.K. //NDS, 1992, v.65, p.439



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶⁵ Dy	0.0	0.083	0.186	0.303	-	-	-	-	-	-	
A: 7/2[633]	0.0	0.084	0.185	0.304	0.440	0.592	0.760	0.944	1.142	1.356	
¹⁶⁵ Dy	0.184	0.262	0.361	0.480	-	-	-	-	-	-	
B: 5/2[512]	0.184	0.262	0.361	0.480	0.620	0.779	0.956	1.152	1.365	1.595	
¹⁶⁵ Dy	0.539	0.584	0.649	-	-	-	-	-	-	-	
D: 3/2 ⁺	0.538	0.584	0.649	0.732	0.833	0.952	1.090	1.247	1.422	1.615	a
¹⁶⁵ Dy	0.108	0.159	0.181	0.298	0.337	0.521	-	-	-	-	
F: 1/2[521]	0.100	0.163	0.194	0.298	0.339	0.469	0.518	0.668	0.723	0.888	
¹⁶⁵ Dy	0.574	0.629	0.706	0.803	0.919	-	-	-	-	-	
H: 3/2[521]	0.573	0.629	0.706	0.803	0.919	1.054	1.205	1.373	1.557	1.755	
¹⁶⁵ Dy	0.570	0.605	0.658	0.738	-	-	-	-	-	-	
K: 1/2 ⁻	0.570	0.605	0.658	0.738	0.831	0.953	1.084	1.245	1.410	1.606	
¹⁶⁵ Ho	0.0	0.095	0.210	0.345	0.499	0.673	0.863	1.069	1.291	-	
A: 7/2[523]	0.0	0.095	0.210	0.345	0.499	0.671	0.862	1.069	1.294	1.535	
¹⁶⁵ Ho	0.516	0.567	0.638	0.730	0.842	0.974	-	-	-	-	
B: 3/2 ⁻	0.516	0.567	0.638	0.730	0.842	0.974	1.125	1.296	1.487	1.696	
¹⁶⁵ Ho	0.362	0.419	0.491	0.601	-	-	-	-	-	-	
D: 3/2[411]	0.361	0.418	0.496	0.598	0.721	0.868	1.036	1.228	1.441	1.678	a
¹⁶⁵ Ho	0.688	0.820	0.969	-	-	-	-	-	-	-	
F: 11/2 ⁻	0.688	0.820	0.969	1.133	1.313	1.508	1.716	1.937	2.170	2.415	
¹⁶⁵ Ho	0.429	0.449	0.539	0.590	0.744	-	-	-	-	-	
G: 1/2[411]	0.429	0.450	0.540	0.589	0.744	0.819	1.034	1.131	1.398	1.515	
¹⁶⁵ Ho	0.681	0.791	0.702	0.956	0.802	1.196	-	-	-	-	
H: 1/2[541]	0.629	0.782	0.710	0.947	0.852	1.143	1.031	1.364	1.238	1.605	
¹⁶⁵ Ho	0.715	0.820	0.946	1.094	-	-	-	-	-	-	
L: 7/2[404]	0.715	0.820	0.946	1.094	1.262	1.451	1.659	1.885	2.130	2.392	
¹⁶⁵ Ho	0.995	1.080	1.187	1.314	-	-	-	-	-	-	
M: 5/2[413]	0.995	1.080	1.187	1.314	1.460	1.624	1.805	2.001	2.211	2.436	

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=165 (continuation of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶⁵ Ho N: 5/2[402]	1.056 1.056	1.140 1.140	1.248 1.248	1.376 1.376	- 1.525	- 1.694	- 1.881	- 2.085	- 2.306	- 2.542	
¹⁶⁵ Ho K: 5/2[532]	1.416 1.415	1.483 1.485	1.574 1.572	1.674 1.675	- 1.792	- 1.923	- 2.066	- 2.221	- 2.387	- 2.563	
¹⁶⁵ Ho Z: 1/2 ⁺	1.038 1.038	1.067 1.067	1.130 1.130	- 1.173	- 1.256	- 1.309	- 1.405	- 1.465	- 1.572	- 1.638	
¹⁶⁵ Er B: 5/2[642]	0.047 0.033	0.063 0.074	0.098 0.127	0.168 0.192	0.238 0.268	0.373 0.357	0.464 0.457	0.678 0.569	0.770 0.693	1.080 0.829	29/2 a
¹⁶⁵ Er D: 3/2[521]	0.243 0.243	0.296 0.297	0.373 0.372	0.467 0.467	- 0.582	- 0.716	- 0.868	- 1.038	- 1.224	- 1.425	
¹⁶⁵ Er E: 5/2[523]	0.0 0.0	0.077 0.077	0.176 0.176	0.296 0.296	- 0.437	- 0.598	- 0.778	- 0.979	- 1.197	- 1.435	
¹⁶⁵ Er F: 1/2[521]	0.297 0.289	0.356 0.359	0.384 0.391	0.514 0.505	- 0.548	- 0.689	- 0.741	- 0.902	- 0.960	- 1.139	
¹⁶⁵ Er K: 5/2[512]	0.478 0.478	0.573 0.572	0.684 0.686	0.820 0.819	- 0.969	- 1.135	- 1.314	- 1.507	- 1.712	- 1.928	
¹⁶⁵ Er H: 11/2[505]	0.551 0.551	0.707 0.707	0.882 0.883	1.078 1.078	- 1.292	- 1.523	- 1.771	- 2.034	- 2.313	- 2.607	
¹⁶⁵ Er M: 1/2 ⁻	0.921 0.921	0.962 0.963	1.024 1.024	1.106 1.106	- 1.199	- 1.309	- 1.425	- 1.556	- 1.691	- 1.839	
¹⁶⁵ Tm A: 7/2[404]	0.080 0.080	0.211 0.213	0.367 0.370	0.546 0.549	0.747 0.747	0.969 0.964	1.207 1.199	1.468 1.449	1.731 1.715	2.029 1.995	33/2
¹⁶⁵ Tm B: 1/2[411]	0.0 0.0	0.012 0.012	0.130 0.131	0.159 0.158	0.362 0.367	0.414 0.407	0.690 0.698	0.770 0.751	1.104 1.114	1.217 1.179	29/2
¹⁶⁵ Tm D: 7/2[523]	0.161 0.157	0.252 0.257	0.370 0.377	0.513 0.519	0.677 0.682	0.868 0.866	1.075 1.069	1.311 1.293	1.553 1.536	1.830 1.797	39/2
¹⁶⁵ Tm F: 1/2[541]	0.158 0.152	0.275 0.276	0.182 0.180	- 0.468	0.294 0.296	- 0.748	0.498 0.500	- 1.115	0.797 0.792	- 1.567	37/2
¹⁶⁵ Tm G: 5/2[402]	0.315 0.315	0.420 0.420	0.552 0.552	- 0.711	- 0.895	- 1.103	- 1.334	- 1.587	- 1.861	- 2.154	
¹⁶⁵ Tm H: 3/2[411]	0.416 0.416	0.491 0.490	0.592 0.593	0.726 0.725	- 0.886	- 1.076	- 1.293	- 1.538	- 1.809	- 2.108	
¹⁶⁵ Yb A+H+K: 5/2[523]	0.0 0.002	0.088 0.088	0.197 0.197	0.330 0.326	0.484 0.474	- 0.640	0.850 0.822	- 1.020	1.281 1.232	- 1.458	77/2
¹⁶⁵ Yb B: 9/2 ⁺	0.127 0.094	- 0.180	0.217 0.281	- 0.397	0.423 0.529	- 0.676	0.745 0.839	- 1.018	1.174 1.211	- 1.421	61/2 a, b
¹⁶⁵ Yb F+L: 7/2 ⁺	0.132 0.101	- 0.177	0.209 0.270	- 0.380	0.419 0.507	- 0.650	0.758 0.811	- 0.988	1.211 1.182	- 1.393	69/2 a, b
¹⁶⁵ Yb N: 1/2[521]	0.324 0.324	0.392 0.392	0.401 0.401	- 0.500	- 0.512	- 0.632	- 0.646	- 0.782	- 0.797	- 0.947	
¹⁶⁵ Lu A+a: 1/2[411]	0.0 -0.009	0.0 0.012	0.147 0.150	0.195 0.198	0.432 0.432	0.519 0.502	0.821 0.817	0.943 0.906	1.291 1.291	1.445 1.397	x, 27/2
¹⁶⁵ Lu B+b: 5/2[402]	0.005 0.005	0.141 0.144	0.305 0.309	0.499 0.498	0.711 0.707	0.955 0.934	1.197 1.179	1.478 1.438	1.740 1.713	2.048 2.000	x, 29/2
¹⁶⁵ Lu C+c: 7/2[404]	0.023 0.023	0.182 0.194	0.366 0.380	0.573 0.580	0.802 0.793	1.048 1.019	1.310 1.257	1.587 1.506	1.871 1.766	2.166 2.035	x, 51/2
¹⁶⁵ Lu D+d: 33/2 ⁺	3.200 3.205	3.436 3.448	3.705 3.705	3.981 3.976	4.269 4.261	4.579 4.559	4.888 4.872	5.220 5.199	5.539 5.539	5.899 5.894	x, 67/2 a
¹⁶⁵ Lu M: 1/2[541]	0.345 0.328	- 0.398	0.466 0.488	- 0.597	0.694 0.727	- 0.877	1.030 1.046	- 1.236	1.462 1.446	- 1.675	x, 41/2 a
¹⁶⁵ Lu N+n: 9/2[514]	0.234 0.217	0.334 0.360	0.494 0.523	0.662 0.701	0.892 0.896	1.099 1.105	1.386 1.327	1.618 1.562	1.945 1.808	2.196 2.066	x, 65/2

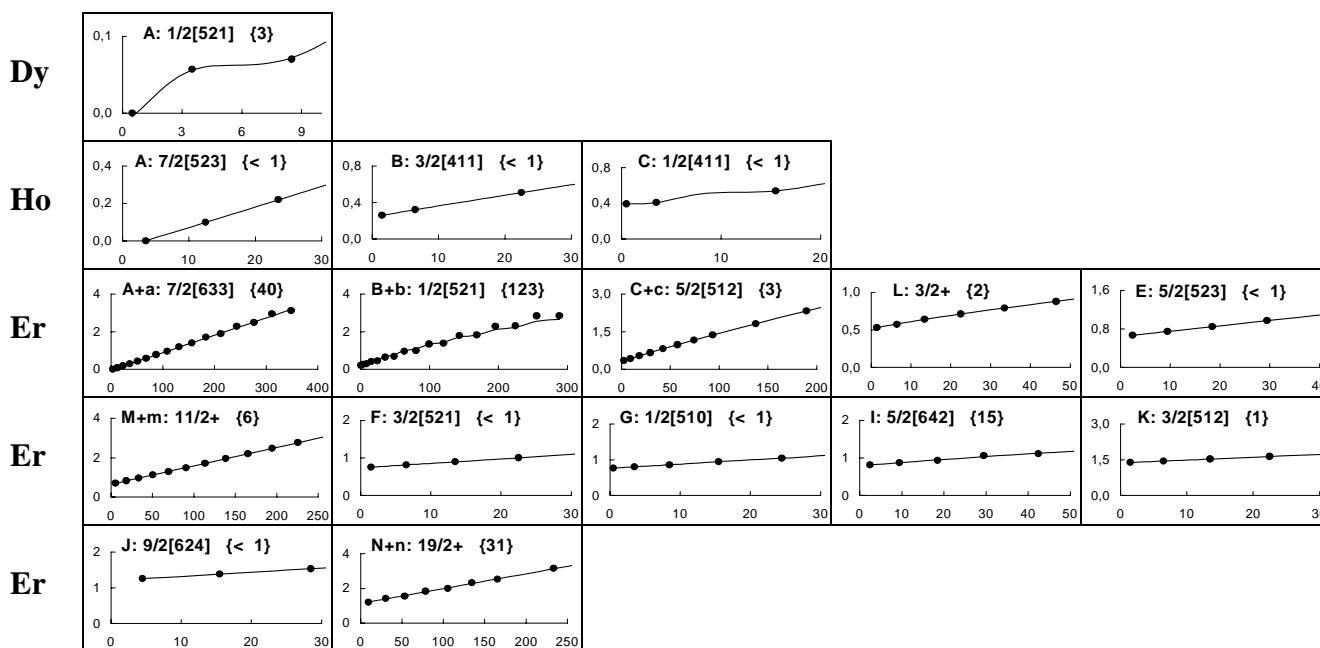
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=165 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶⁵ Lu	2.263	-	2.709	-	3.233	-	3.815	-	4.457	-	x, 65/2
E: 25/2 ⁺	2.258	2.480	2.716	2.968	3.236	3.518	3.815	4.127	4.453	4.794	b, s
¹⁶⁵ Hf	0.0	0.076	0.219	-	0.531	-	0.955	-	1.436	-	
A: 5/2[523]	-0.005	0.085	0.200	0.342	0.508	0.701	0.919	1.163	1.433	1.729	
¹⁶⁵ Hf	0.120	0.533	0.335	0.938	0.716	1.468	1.225	2.075	1.826	2.729	37/2
B: 13/2 ⁺	0.121	0.275	0.450	0.646	0.862	1.099	1.357	1.635	1.934	2.254	a
¹⁶⁵ Hf	2.315	-	2.760	-	3.266	-	3.851	-	4.514	-	47/2
H: 27/2	2.303	2.526	2.764	3.017	3.286	3.570	3.869	4.184	4.514	4.859	a
¹⁶⁵ Hf	3.843	-	4.533	-	5.272	-	6.079	-	6.962	-	61/2
D: 41/2 ⁺	3.842	4.177	4.529	4.896	5.278	5.676	6.090	6.519	6.964	7.425	a
¹⁶⁵ Hf	1.733	1.873	2.067	2.339	2.472	2.870	2.960	3.455	3.561	4.111	51/2
E+F: 23/2 ⁻	1.677	1.875	2.088	2.317	2.562	2.823	3.099	3.392	3.700	4.024	a
¹⁶⁵ Hf	2.424	-	2.840	-	3.363	-	3.989	-	4.718	-	47/2
G: 27/2 ⁻	2.384	2.618	2.868	3.134	3.416	3.714	4.029	4.360	4.707	5.069	a
¹⁶⁵ W	1.948	-	2.302	-	2.602	-	3.057	-	3.633	-	x, 59/2
A: 23/2 ⁻	1.885	2.064	2.257	2.465	2.687	2.923	3.174	3.439	3.718	4.012	a
¹⁶⁵ W	0.0	-	0.277	-	0.732	-	1.304	-	1.952	-	x, 45/2
B: 13/2 ⁺	-0.028	0.131	0.312	0.514	0.738	0.982	1.248	1.536	1.844	2.174	a
¹⁶⁵ W	1.032	-	1.546	-	1.956	-	2.445	-	-	-	x
C: 17/2 ⁻	1.033	1.298	1.534	1.760	1.983	2.205	2.427	2.651	2.877	3.106	
¹⁶⁵ W	2.511	-	2.860	-	3.341	-	3.924	-	4.601	-	x, 53/2
D: 29/2 ⁻	2.443	2.664	2.900	3.149	3.413	3.691	3.983	4.290	4.610	4.946	a

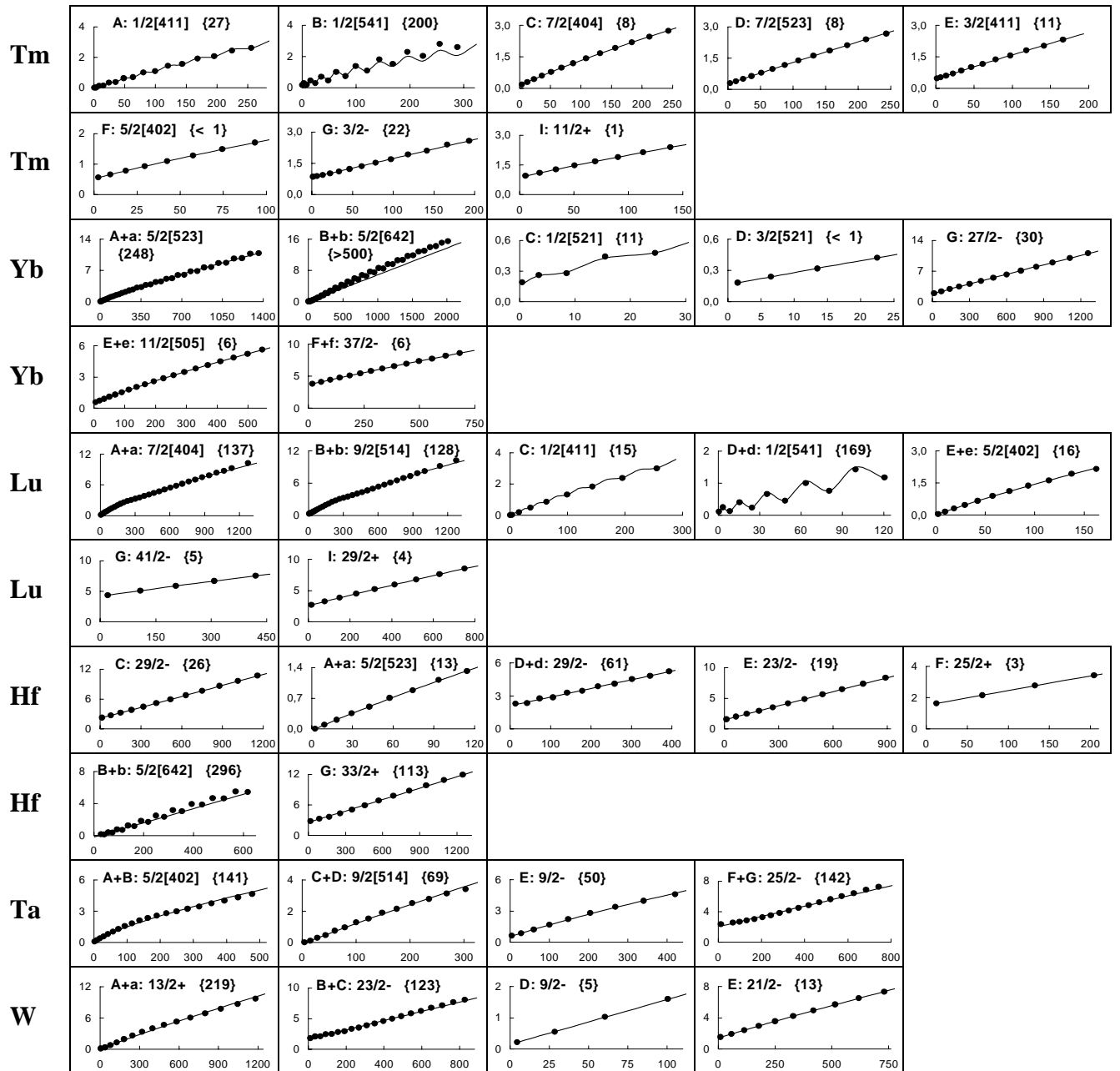
A=167

Baglin C.M. //NDS, 2000, v.90, p.431



A=167 (continuation)

Baglin C.M. //NDS, 2000, v.90, p.431



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{167}Dy	0.0	0.057	0.070	-	-	-	-	-	-	-	
A: 1/2[521]	-0.004	0.056	0.072	0.159	0.180	0.284	0.309	0.427	0.454	0.584	
^{167}Ho	0.0	0.098	0.220	-	-	-	-	-	-	-	
A: 7/2[523]	0.0	0.098	0.219	0.362	0.526	0.712	0.921	1.151	1.403	1.677	a
^{167}Ho	0.259	0.320	-	0.508	-	-	-	-	-	-	
B: 3/2[411]	0.259	0.320	0.403	0.508	0.633	0.778	0.940	1.119	1.314	1.524	
^{167}Ho	0.393	0.410	-	0.540	-	-	-	-	-	-	
C: 1/2[411]	0.392	0.410	0.512	0.540	0.678	0.712	0.876	0.915	1.099	1.143	

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=167 (continuation of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶⁷ Er	0.0	0.079	0.178	0.295	0.434	0.587	0.773	0.955	1.194	1.394	37/2
A+a: 7/2[633]	-0.004	0.079	0.180	0.300	0.438	0.595	0.770	0.963	1.175	1.405	a
¹⁶⁷ Er	0.208	0.265	0.282	0.413	0.442	0.645	0.683	0.955	0.999	1.337	37/2
B+b: 1/2[521]	0.150	0.232	0.278	0.426	0.493	0.685	0.766	0.990	1.083	1.333	
¹⁶⁷ Er	0.347	0.430	0.536	0.663	0.812	0.980	1.166	1.369	-	1.819	27/2
C+c: 5/2[512]	0.346	0.430	0.537	0.664	0.812	0.979	1.164	1.366	1.584	1.817	
¹⁶⁷ Er	0.531	0.574	0.640	0.711	0.791	0.878	-	-	-	-	
L: 3/2 ⁺	0.530	0.578	0.638	0.710	0.791	0.880	0.976	1.079	1.188	1.303	
¹⁶⁷ Er	0.668	0.745	0.845	0.968	-	-	-	-	-	-	
E: 5/2[523]	0.668	0.746	0.846	0.968	1.113	1.279	1.469	1.680	1.914	2.169	a
¹⁶⁷ Er	0.711	0.828	0.966	1.125	1.299	1.496	1.712	1.948	2.202	2.477	37/2
M+m: 11/2 ⁺	0.707	0.828	0.968	1.127	1.305	1.501	1.716	1.949	2.202	2.473	
¹⁶⁷ Er	0.753	0.813	0.895	1.002	-	-	-	-	-	-	
F: 3/2[521]	0.753	0.812	0.895	1.002	1.132	1.286	1.464	1.666	1.891	2.140	a
¹⁶⁷ Er	0.763	0.802	0.857	0.943	1.042	-	-	-	-	-	
G: 1/2[510]	0.764	0.801	0.857	0.943	1.042	1.177	1.317	1.498	1.678	1.902	
¹⁶⁷ Er	0.811	0.873	0.933	1.058	1.110	-	-	-	-	-	
I: 5/2[642]	0.809	0.873	0.948	1.031	1.122	1.220	1.324	1.435	1.551	1.672	
¹⁶⁷ Er	1.384	1.440	1.526	1.634	-	-	-	-	-	-	
K: 3/2[512]	1.382	1.442	1.526	1.633	1.765	1.920	2.100	2.303	2.530	2.781	a
¹⁶⁷ Er	1.253	1.382	1.530	-	-	-	-	-	-	-	
J: 9/2[624]	1.253	1.382	1.530	1.695	1.877	2.074	2.285	2.510	2.747	2.997	
¹⁶⁷ Er	1.199	1.423	1.554	1.837	1.995	2.327	2.528	-	3.152	-	
N+n: 19/2 ⁺	1.210	1.390	1.588	1.803	2.036	2.285	2.552	2.836	3.137	3.455	
¹⁶⁷ Tm	0.0	0.010	0.117	0.142	0.326	0.371	0.622	0.689	0.994	1.087	31/2
A: 1/2[411]	0.0	0.010	0.118	0.142	0.330	0.367	0.628	0.676	1.003	1.061	c
¹⁶⁷ Tm	0.172	0.291	0.188	0.460	0.286	0.699	0.470	1.008	0.741	1.381	33/2
B: 1/2[541]	0.124	0.302	0.182	0.505	0.333	0.749	0.539	1.026	0.787	1.332	c
¹⁶⁷ Tm	0.179	0.296	0.436	0.598	0.779	0.979	1.195	1.425	1.669	1.922	31/2
C: 7/2[404]	0.179	0.298	0.438	0.599	0.779	0.976	1.189	1.417	1.660	1.916	c
¹⁶⁷ Tm	0.293	0.384	0.497	0.632	0.788	0.966	1.161	1.378	1.607	1.859	31/2
D: 7/2[523]	0.291	0.385	0.500	0.635	0.790	0.964	1.158	1.369	1.600	1.848	c
¹⁶⁷ Tm	0.471	0.522	0.602	0.709	0.840	1.001	1.164	1.373	1.563	1.814	25/2
E: 3/2[411]	0.465	0.525	0.608	0.714	0.842	0.993	1.164	1.356	1.568	1.799	c
¹⁶⁷ Tm	0.558	0.658	0.780	0.928	1.096	1.281	1.487	1.705	-	-	
F: 5/2[402]	0.558	0.657	0.781	0.928	1.095	1.281	1.486	1.706	1.942	2.193	
¹⁶⁷ Tm	0.853	0.882	0.935	1.009	1.105	1.223	1.359	1.525	1.691	1.917	27/2
G: 3/2 ⁻	0.830	0.875	0.939	1.021	1.121	1.240	1.376	1.531	1.704	1.895	a
¹⁶⁷ Tm	0.945	1.101	1.277	1.470	1.679	1.901	2.136	2.382	-	-	
I: 11/2 ⁺	0.944	1.102	1.278	1.470	1.678	1.900	2.135	2.384	2.645	2.918	
¹⁶⁷ Yb	0.0	0.079	0.179	0.301	0.442	0.607	0.784	0.987	1.193	1.433	93/2
A+a: 5/2[523]	0.001	0.079	0.178	0.298	0.437	0.595	0.771	0.964	1.174	1.400	
¹⁶⁷ Yb	0.030	0.034	0.059	0.126	0.186	0.330	0.408	0.644	0.721	1.061	91/2
B+b: 5/2[642]	0.0	0.048	0.109	0.185	0.274	0.377	0.493	0.623	0.767	0.925	a
¹⁶⁷ Yb	0.189	0.259	0.278	0.441	0.477	-	-	-	-	-	
C: 1/2[521]	0.174	0.253	0.291	0.427	0.480	0.652	0.715	0.914	0.986	1.207	
¹⁶⁷ Yb	0.180	0.239	0.317	0.420	-	-	-	-	-	-	
D: 3/2[521]	0.180	0.238	0.319	0.419	0.539	0.676	0.829	0.998	1.181	1.378	
¹⁶⁷ Yb	1.896	-	2.360	-	2.882	-	3.460	-	4.078	-	75/2
G: 27/2 ⁻	1.907	2.125	2.358	2.605	2.867	3.143	3.433	3.738	4.056	4.389	

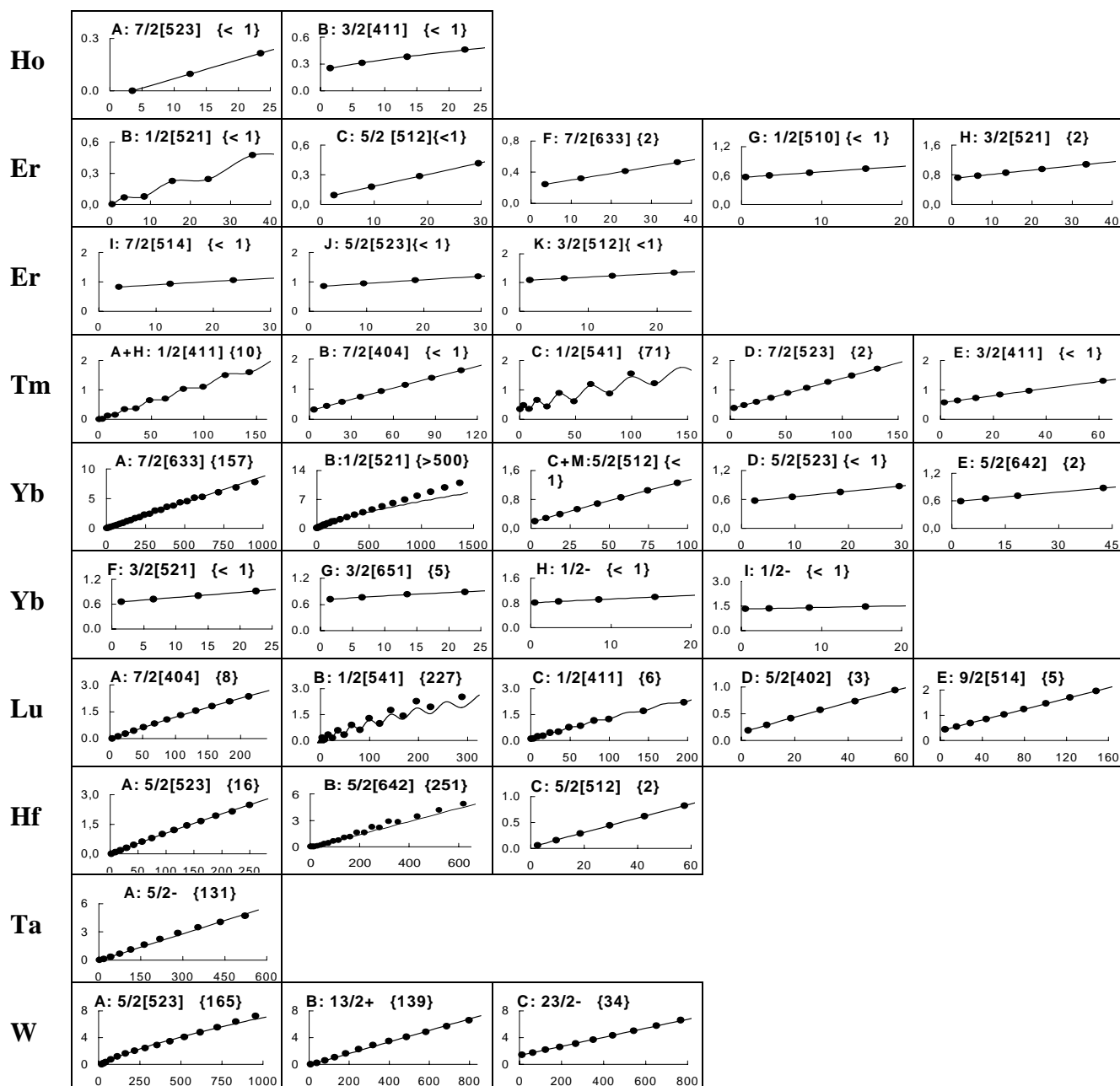
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=167 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶⁷ Yb	0.572	0.727	0.901	1.095	1.305	1.531	1.772	2.026	2.293	2.572	49/2
E+e: 11/2[505]	0.572	0.727	0.902	1.094	1.304	1.529	1.769	2.024	2.292	2.573	
¹⁶⁷ Yb	3.815	4.117	4.435	4.764	5.106	5.454	5.813	6.179	6.553	6.936	63/2
F+f: 37/2 ⁻	3.815	4.120	4.436	4.763	5.101	5.450	5.809	6.178	6.557	6.946	
¹⁶⁷ Lu	0.140	0.305	0.494	0.704	0.934	1.181	1.444	1.720	2.008	2.299	71/2
A+a: 7/2[404]	0.142	0.316	0.505	0.708	0.924	1.151	1.389	1.638	1.896	2.164	
¹⁶⁷ Lu	0.332	0.434	0.577	0.744	0.948	1.160	1.412	1.656	1.948	2.215	71/2
B+b: 9/2[514]	0.313	0.450	0.606	0.779	0.967	1.170	1.386	1.616	1.857	2.110	
¹⁶⁷ Lu	0.0	0.019	-	0.189	-	0.479	-	0.858	-	1.318	x, 31/2
C: 1/2[411]	0.0	0.019	0.151	0.192	0.414	0.475	0.772	0.849	1.209	1.300	
¹⁶⁷ Lu	0.107	0.244	0.122	0.400	0.233	0.658	0.446	1.000	0.761	1.425	x, 65/2
D+d: 1/2[541]	0.091	0.216	0.123	0.411	0.247	0.694	0.461	1.058	0.759	1.499	
¹⁶⁷ Lu	0.039	0.155	0.300	0.470	0.663	0.886	1.112	1.376	1.620	1.925	x, 25/2
E+e: 5/2[402]	0.039	0.156	0.301	0.471	0.663	0.876	1.109	1.359	1.625	1.907	
¹⁶⁷ Lu	4.347	-	5.107	-	5.872	-	6.689	-	7.523	-	x
G: 41/2 ⁻	4.348	4.721	5.101	5.487	5.880	6.280	6.687	7.101	7.522	7.950	
¹⁶⁷ Lu	2.703	-	3.254	-	3.855	-	4.508	-	5.213	-	x, 61/2
I: 29/2 ⁺	2.706	2.971	3.250	3.544	3.852	4.173	4.508	4.855	5.215	5.587	s
¹⁶⁷ Hf	0.0	0.092	0.207	0.355	0.505	0.707	0.884	1.121	1.324	-	25/2
A+a: 5/2[523]	-0.002	0.092	0.211	0.351	0.511	0.690	0.887	1.100	1.328	1.571	
¹⁶⁷ Hf	-	-	-	0.188	0.144	0.401	0.349	0.767	0.692	1.254	61/2
B+b: 5/2[642]	-0.159	-0.097	-0.017	0.081	0.196	0.330	0.481	0.650	0.837	1.041	a
¹⁶⁷ Hf	2.245	-	2.695	-	3.207	-	3.788	-	4.437	-	73/2
C: 29/2 ⁻	2.223	2.451	2.694	2.952	3.225	3.513	3.815	4.132	4.463	4.810	a
¹⁶⁷ Hf	2.289	2.339	2.769	2.869	3.288	3.453	3.875	4.103	4.526	4.822	47/2
D+d: 29/2 ⁻	2.216	2.444	2.689	2.949	3.225	3.517	3.824	4.148	4.487	4.842	a
¹⁶⁷ Hf	1.561	-	1.995	-	2.442	-	2.938	-	3.503	-	63/2
E: 23/2 ⁻	1.573	1.764	1.970	2.191	2.427	2.678	2.945	3.227	3.524	3.836	a
¹⁶⁷ Hf	1.618	-	2.148	-	2.758	-	3.417	-	-	-	
F: 25/2 ⁺	1.617	1.876	2.151	2.444	2.753	3.078	3.419	3.776	4.148	4.536	
¹⁶⁷ Hf	2.811	-	3.261	-	3.667	-	4.335	-	5.084	-	77/2
G: 33/2 ⁺	2.687	2.949	3.225	3.517	3.823	4.144	4.480	4.831	5.197	5.578	a
¹⁶⁷ Ta	0.094	0.205	0.374	0.574	0.791	1.036	1.285	1.558	1.821	2.090	45/2
A+B: 5/2[402]	0.089	0.234	0.396	0.575	0.768	0.974	1.192	1.421	1.661	1.911	
¹⁶⁷ Ta	0.0	0.098	0.289	0.472	0.741	0.959	1.287	1.527	1.891	2.144	35/2
C+D: 9/2[514]	-0.046	0.105	0.281	0.481	0.703	0.948	1.213	1.498	1.802	2.125	
¹⁶⁷ Ta	0.611	-	0.853	-	1.217	-	1.680	-	2.216	-	41/2
E: 9/2 ⁻	0.599	0.729	0.879	1.050	1.239	1.447	1.672	1.913	2.170	2.442	
¹⁶⁷ Ta	2.375	-	2.549	2.670	2.837	3.031	3.265	3.530	3.820	4.145	x, 59/2
F+G: 25/2 ⁻	2.127	2.308	2.503	2.711	2.932	3.167	3.415	3.677	3.952	4.241	a
¹⁶⁷ W	0.125	-	0.350	-	0.756	-	1.295	-	1.931	-	69/2
A+a: 13/2 ⁺	0.117	0.261	0.423	0.603	0.801	1.016	1.249	1.498	1.763	2.045	
¹⁶⁷ W	1.782	2.093	2.104	2.427	2.479	2.821	2.937	3.313	3.509	3.907	61/2
B+C: 23/2 ⁻	1.746	1.934	2.138	2.357	2.591	2.840	3.104	3.383	3.677	3.987	a
¹⁶⁷ W	0.215	-	0.553	-	1.023	-	1.598	-	-	-	
D: 9/2 ⁻	0.214	0.372	0.559	0.774	1.018	1.291	1.592	1.922	2.281	2.668	a
¹⁶⁷ W	1.526	-	1.920	-	2.407	-	2.960	-	3.556	-	57/2
E: 21/2 ⁻	1.518	1.718	1.934	2.166	2.413	2.676	2.954	3.246	3.553	3.874	

A=169

Shirley V.S. //NDS, 1991, v.64, p.505



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶⁹ Ho	0.0	0.097	0.215	-	-	-	-	-	-	-	
A: 7/2[523]	0.0	0.097	0.215	0.353	0.512	0.690	0.888	1.104	1.338	1.591	
¹⁶⁹ Ho	0.254	0.314	0.381	0.460	-	-	-	-	-	-	
B: 3/2[411]	0.254	0.313	0.382	0.459	0.544	0.635	0.732	0.834	0.941	1.053	
¹⁶⁹ Er	0.0	0.065	0.075	0.224	0.242	0.474	-	-	-	-	
B: 1/2[521]	0.0	0.065	0.075	0.224	0.242	0.473	0.498	0.807	0.839	1.220	
¹⁶⁹ Er	0.092	0.176	0.285	0.414	-	-	-	-	-	-	
C: 5/2[512]	0.092	0.177	0.284	0.414	0.566	0.738	0.930	1.142	1.372	1.619	
¹⁶⁹ Er	0.244	0.317	0.413	0.526	-	-	-	-	-	-	
F: 7/2[633]	0.243	0.319	0.413	0.524	0.652	0.797	0.959	1.138	1.334	1.547	a
¹⁶⁹ Er	0.562	0.599	0.654	0.740	-	-	-	-	-	-	
G: 1/2[510]	0.562	0.599	0.654	0.740	0.836	0.967	1.102	1.275	1.445	1.655	

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=169 (continuation of the table)

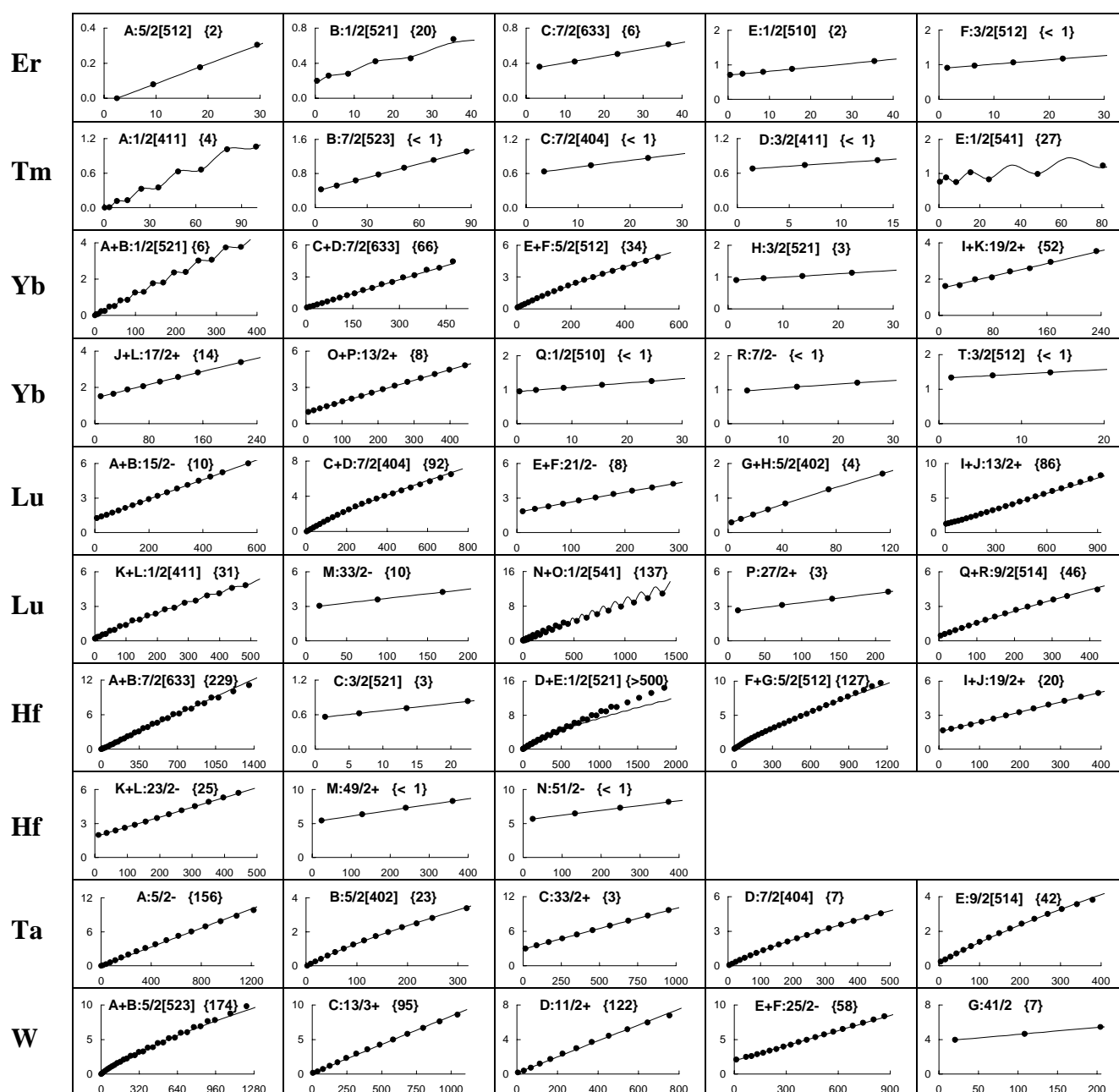
Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁶⁹ Er	0.715	0.770	0.850	0.947	1.076	-	-	-	-	-	
H: 3/2[521]	0.714	0.770	0.849	0.950	1.074	1.220	1.389	1.580	1.794	2.030	a
¹⁶⁹ Er	0.822	0.930	1.051	-	-	-	-	-	-	-	
I: 7/2[514]	0.822	0.930	1.051	1.183	1.326	1.479	1.640	1.810	1.988	2.173	
¹⁶⁹ Er	0.853	0.941	1.052	1.186	-	-	-	-	-	-	
J: 5/2[523]	0.853	0.941	1.052	1.186	1.341	1.517	1.712	1.925	2.157	2.404	
¹⁶⁹ Er	1.082	1.145	1.229	1.341	-	-	-	-	-	-	
K: 3/2[512]	1.082	1.144	1.230	1.341	1.476	1.636	1.820	2.030	2.263	2.522	a
¹⁶⁹ Tm	0.0	0.008	0.118	0.139	0.332	0.368	0.637	0.691	1.028	1.104	23/2
A+H: 1/2[411]	0.0	0.008	0.119	0.138	0.334	0.365	0.643	0.684	1.040	1.091	
¹⁶⁹ Tm	0.316	0.433	0.575	0.741	0.930	1.141	1.373	1.625	-	-	
B: 7/2[404]	0.316	0.434	0.575	0.741	0.930	1.141	1.373	1.625	1.898	2.189	
¹⁶⁹ Tm	0.342	0.475	0.345	0.647	0.430	0.885	0.603	1.189	0.866	1.548	25/2
C: 1/2[541]	0.254	0.443	0.320	0.645	0.471	0.883	0.675	1.151	0.916	1.446	
¹⁶⁹ Tm	0.379	0.473	0.588	0.725	0.884	1.064	1.262	1.483	1.717	-	
D: 7/2[523]	0.379	0.473	0.589	0.726	0.884	1.062	1.261	1.481	1.721	1.981	
¹⁶⁹ Tm	0.571	0.633	0.719	0.832	0.964	-	1.301	-	-	-	
E: 3/2[411]	0.571	0.633	0.720	0.831	0.965	1.122	1.301	1.501	1.722	1.964	
¹⁶⁹ Yb	0.0	0.071	0.162	0.270	0.405	0.547	0.736	0.903	1.157	1.336	61/2
A: 7/2[633]	-0.006	0.074	0.171	0.286	0.418	0.568	0.735	0.920	1.123	1.343	
¹⁶⁹ Yb	0.024	0.087	0.099	0.244	0.264	0.487	0.512	0.808	0.834	1.199	73/2
B: 1/2[521]	0.019	0.092	0.134	0.275	0.340	0.528	0.608	0.832	0.924	1.178	
¹⁶⁹ Yb	0.191	0.279	0.389	0.523	0.677	0.851	1.043	1.251	-	-	
C+M: 5/2[512]	0.191	0.279	0.390	0.523	0.677	0.850	1.043	1.253	1.479	1.722	
¹⁶⁹ Yb	0.570	0.648	0.749	0.871	-	-	-	-	-	-	
D: 5/2[523]	0.570	0.648	0.749	0.871	1.015	1.181	1.368	1.575	1.803	2.051	a
¹⁶⁹ Yb	0.591	0.647	0.707	-	0.877	-	-	-	-	-	
E: 5/2[642]	0.592	0.644	0.710	0.787	0.876	0.976	1.085	1.204	1.331	1.466	
¹⁶⁹ Yb	0.660	0.722	0.807	0.920	-	-	-	-	-	-	
F: 3/2[521]	0.660	0.722	0.808	0.919	1.055	1.216	1.402	1.612	1.847	2.107	a
¹⁶⁹ Yb	0.720	0.762	0.832	0.887	-	-	-	-	-	-	
G: 3/2[651]	0.719	0.767	0.825	0.890	0.962	1.039	1.121	1.209	1.300	1.396	
¹⁶⁹ Yb	0.813	0.851	0.912	0.997	-	-	-	-	-	-	
H: 1/2 ⁻	0.813	0.851	0.912	0.997	1.099	1.224	1.362	1.521	1.690	1.878	
¹⁶⁹ Yb	1.320	1.350	1.395	1.465	-	-	-	-	-	-	
I: 1/2 ⁻	1.320	1.350	1.395	1.465	1.546	1.656	1.772	1.922	2.074	2.262	
¹⁶⁹ Lu	0.0	0.123	0.271	0.440	0.629	0.836	1.060	1.299	1.549	1.810	29/2
A: 7/2[404]	-0.001	0.124	0.272	0.440	0.627	0.832	1.054	1.292	1.544	1.810	
¹⁶⁹ Lu	0.029	0.157	0.043	0.328	0.141	0.576	0.330	0.896	0.610	1.288	33/2
B: 1/2[541]	-0.029	0.164	0.034	0.370	0.187	0.614	0.394	0.890	0.641	1.193	
¹⁶⁹ Lu	0.097	0.114	0.225	0.261	0.449	0.508	0.763	0.842	1.151	1.244	27/2
C: 1/2[411]	0.097	0.114	0.225	0.262	0.452	0.507	0.764	0.835	1.151	1.235	
¹⁶⁹ Lu	0.186	0.289	0.415	0.569	0.733	0.936	-	-	-	-	
D: 5/2[402]	0.186	0.288	0.415	0.566	0.739	0.932	1.145	1.375	1.622	1.884	
¹⁶⁹ Lu	0.439	0.546	0.683	0.845	1.032	1.235	1.462	1.697	1.956	-	
E: 9/2[514]	0.434	0.551	0.689	0.848	1.029	1.230	1.453	1.697	1.962	2.249	a
¹⁶⁹ Hf	0.0	0.078	0.177	0.303	0.444	0.614	0.790	0.998	1.202	1.444	31/2
A: 5/2[523]	-0.001	0.079	0.180	0.302	0.444	0.606	0.785	0.982	1.196	1.426	
¹⁶⁹ Hf	0.038	0.029	0.035	0.102	0.143	0.309	0.361	0.640	0.688	1.078	49/2
B: 5/2[642]	-0.091	-0.038	0.029	0.111	0.209	0.321	0.448	0.590	0.747	0.919	a
¹⁶⁹ Hf	0.059	0.159	0.289	0.443	0.622	0.821	-	-	-	-	
C: 5/2[512]	0.059	0.160	0.288	0.442	0.621	0.824	1.049	1.297	1.565	1.853	

A=169 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹⁶⁹ Ta	0.0	-	0.107	-	0.331	-	0.668	-	1.106	-	45/2
A: 5/2 ⁻	-0.021	0.045	0.130	0.234	0.356	0.498	0.659	0.838	1.036	1.253	b
¹⁶⁹ W	-	-	0.0	0.145	0.327	-	0.734	-	1.176	-	x, 61/2
A: 5/2[523]	-0.270	-0.145	-0.004	0.152	0.321	0.502	0.694	0.896	1.107	1.328	
¹⁶⁹ W	0.0	-	0.208	-	0.576	-	1.063	-	1.639	-	y, 57/2
B: 13/2 ⁺	-0.029	0.100	0.246	0.409	0.590	0.787	1.002	1.234	1.484	1.750	
¹⁶⁹ W	1.422	-	1.759	-	2.160	-	2.597	-	3.099	-	y, 59/2
C: 23/2 ⁻	1.407	1.576	1.759	1.955	2.165	2.388	2.625	2.875	3.139	3.416	a

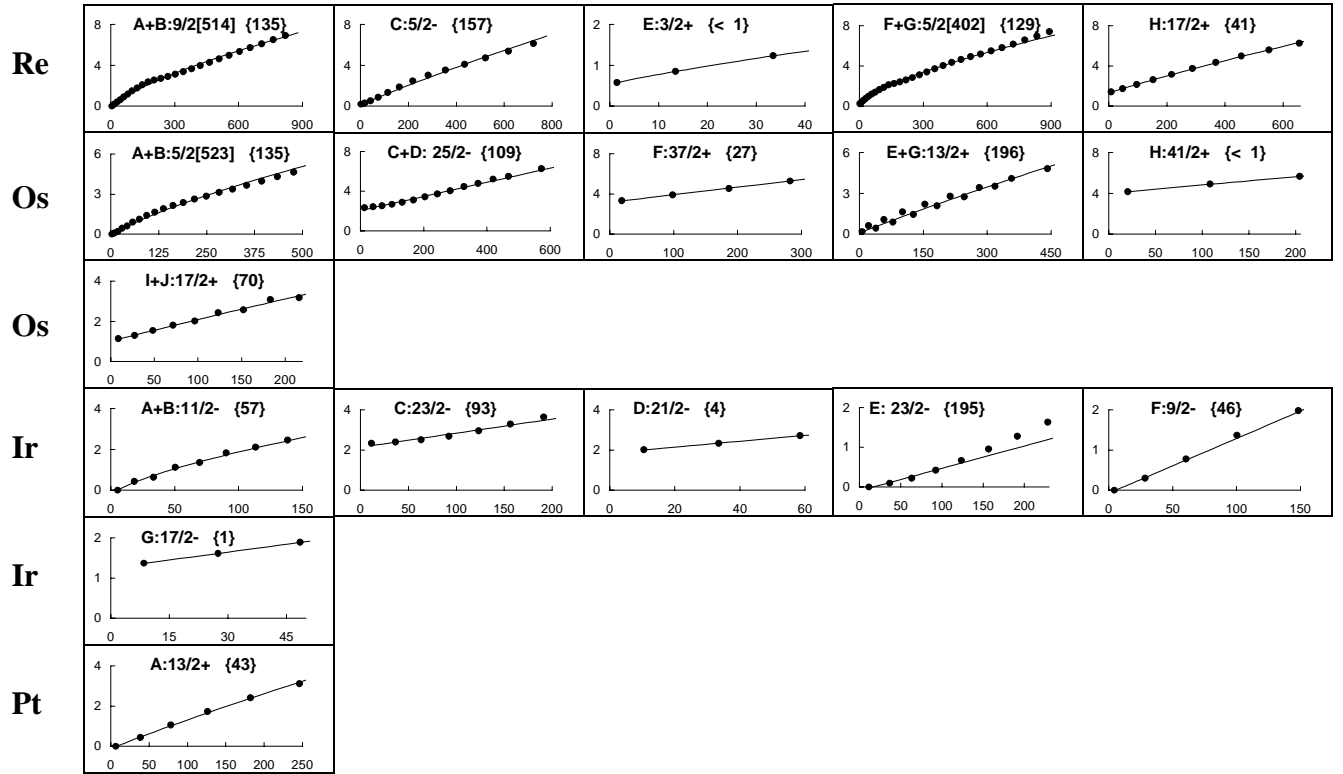
A=171

Baglin C.M. //NDS, 2002, v.96, p.399



A=171 (continuation)

Baglin C.M. //NDS, 2002, v.96, p.399



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷¹ Er	0.0	0.079	0.176	0.304	-	-	-	-	-	-	
A: 5/2[512]	0.0	0.078	0.179	0.301	0.447	0.614	0.803	1.015	1.250	1.506	
¹⁷¹ Er	0.199	0.257	0.279	0.420	0.455	0.674	-	-	-	-	
B: 1/2[521]	0.178	0.254	0.291	0.420	0.471	0.635	0.696	0.886	0.954	1.165	
¹⁷¹ Er	0.358	0.417	0.504	0.615	-	-	-	-	-	-	
C: 7/2[633]	0.354	0.423	0.508	0.608	0.723	0.854	1.000	1.162	1.339	1.531	a
¹⁷¹ Er	0.707	0.737	0.794	0.880	-	1.106	-	-	-	-	
E: 1/2[510]	0.705	0.740	0.795	0.878	0.978	1.107	1.251	1.427	1.616	1.838	
¹⁷¹ Er	0.905	0.972	1.061	1.171	-	-	-	-	-	-	
F: 3/2[512]	0.905	0.972	1.061	1.171	1.298	1.442	1.600	1.772	1.956	2.151	
¹⁷¹ Tm	0.0	0.005	0.117	0.129	0.327	0.348	0.627	0.659	1.013	1.057	
A: 1/2[411]	0.0	0.005	0.117	0.129	0.329	0.347	0.631	0.655	1.019	1.049	
¹⁷¹ Tm	0.425	0.520	0.637	0.776	0.936	1.117	1.317	-	-	-	
B: 7/2[523]	0.425	0.521	0.638	0.776	0.935	1.116	1.318	1.541	1.785	2.051	
¹⁷¹ Tm	0.636	0.744	0.873	-	-	-	-	-	-	-	
C: 7/2[404]	0.635	0.744	0.873	1.021	1.187	1.369	1.568	1.781	2.008	2.248	
¹⁷¹ Tm	0.676	0.737	0.822	-	-	-	-	-	-	-	
D: 3/2[411]	0.676	0.737	0.822	0.930	1.058	1.206	1.373	1.557	1.758	1.974	
¹⁷¹ Tm	0.755	0.884	0.750	1.036	0.824	-	0.984	-	1.232	-	
E: 1/2[541]	0.727	0.889	0.750	1.053	0.849	1.244	0.994	1.460	1.174	1.697	
¹⁷¹ Yb	0.0	0.067	0.076	0.231	0.247	0.487	0.509	0.833	0.860	1.264	37/2
A+B: 1/2[521]	0.0	0.067	0.076	0.231	0.247	0.487	0.510	0.833	0.861	1.262	
¹⁷¹ Yb	0.095	0.168	0.259	0.369	0.501	0.648	0.826	1.005	1.234	1.436	43/2
C+D: 7/2[633]	0.091	0.171	0.269	0.384	0.518	0.669	0.838	1.024	1.229	1.451	a
¹⁷¹ Yb	0.122	0.208	0.317	0.450	0.604	0.780	0.976	1.190	1.421	1.665	45/2
E+F: 5/2[512]	0.120	0.211	0.324	0.458	0.611	0.783	0.972	1.177	1.397	1.630	
¹⁷¹ Yb	0.902	0.958	1.025	1.128	-	-	-	-	-	-	
H: 3/2[521]	0.903	0.956	1.030	1.126	1.242	1.381	1.540	1.721	1.922	2.146	a

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=171 (continuation of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹⁷¹ Yb	1.614	1.665	1.986	2.087	2.429	2.596	2.945	-	3.538	-	
I+K: 19/2 ⁺	1.555	1.738	1.938	2.156	2.391	2.643	2.913	3.200	3.505	3.827	a
¹⁷¹ Yb	1.517	1.656	1.885	2.070	2.319	2.578	2.821	-	3.390	-	
J+L: 17/2 ⁺	1.504	1.680	1.873	2.084	2.313	2.559	2.822	3.102	3.399	3.712	
¹⁷¹ Yb	1.614	1.665	1.986	2.087	2.429	2.596	2.945	-	3.538	-	
I+K: 19/2 ⁺	1.555	1.738	1.938	2.156	2.391	2.643	2.913	3.200	3.505	3.827	
¹⁷¹ Yb	0.981	1.114	1.266	1.437	1.626	1.835	2.060	2.306	2.567	2.846	43/2
O+P: 13/2 ⁺	0.977	1.114	1.268	1.441	1.631	1.838	2.063	2.305	2.564	2.840	
¹⁷¹ Yb	0.953	0.992	1.052	1.144	1.254	-	-	-	-	-	
Q: 1/2[510]	0.953	0.992	1.053	1.144	1.254	1.397	1.556	1.751	1.959	2.207	a
¹⁷¹ Yb	0.971	1.083	1.204	-	-	-	-	-	-	-	
R: 7/2 ⁻	0.971	1.083	1.204	1.334	1.472	1.618	1.772	1.932	2.099	2.272	
¹⁷¹ Yb	1.331	1.395	1.486	-	-	-	-	-	-	-	
T: 3/2[512]	1.331	1.395	1.486	1.602	1.744	1.912	2.106	2.325	2.571	2.842	a
¹⁷¹ Lu	1.242	1.382	1.543	1.722	1.920	2.136	2.370	2.622	2.892	3.178	49/2
A+B: 15/2 ⁻	1.235	1.382	1.546	1.728	1.926	2.142	2.374	2.623	2.889	3.172	
¹⁷¹ Lu	0.0	0.122	0.269	0.440	0.634	0.850	1.086	1.341	1.614	1.903	53/2
C+D: 7/2[404]	-0.005	0.125	0.277	0.450	0.642	0.851	1.076	1.316	1.570	1.838	
¹⁷¹ Lu	1.845	2.048	2.269	2.510	2.768	3.043	3.329	3.621	3.914	4.218	
E+F: 21/2 ⁻	1.840	2.050	2.276	2.516	2.770	3.037	3.317	3.611	3.916	4.233	
¹⁷¹ Lu	0.296	0.395	0.519	0.671	0.842	-	1.248	-	1.702	-	
G+H: 5/2[402]	0.295	0.396	0.521	0.670	0.841	1.031	1.241	1.467	1.710	1.968	
¹⁷¹ Lu	1.270	1.354	1.456	1.578	1.719	1.876	2.045	2.249	2.449	2.697	61/2
I+J: 13/2 ⁺	1.203	1.315	1.442	1.585	1.742	1.914	2.102	2.304	2.521	2.753	a
¹⁷¹ Lu	0.208	0.221	0.334	0.365	0.559	0.612	0.875	0.952	1.276	1.368	43/2
K+L: 1/2[411]	0.205	0.222	0.335	0.372	0.564	0.619	0.878	0.948	1.264	1.346	
¹⁷¹ Lu	3.029	-	3.583	-	4.244	-	-	-	-	-	
M: 33/2 ⁻	3.024	3.303	3.597	3.908	4.235	4.578	4.936	5.311	5.701	6.108	
¹⁷¹ Lu	0.071	0.206	0.073	0.380	0.159	0.620	0.337	0.934	0.607	1.321	73/2
N+O: 1/2[541]	0.061	0.184	0.077	0.365	0.172	0.622	0.346	0.956	0.597	1.364	
¹⁷¹ Lu	2.626	-	3.099	-	3.643	-	4.257	-	-	-	
P: 27/2 ⁺	2.624	2.855	3.103	3.366	3.646	3.941	4.253	4.580	4.924	5.283	
¹⁷¹ Lu	0.469	0.594	0.743	0.915	1.111	1.329	1.566	1.819	2.093	2.375	41/2
Q+R: 9/2[514]	0.462	0.597	0.753	0.929	1.123	1.335	1.564	1.809	2.069	2.343	
¹⁷¹ Hf	0.0	0.062	0.146	0.245	0.382	0.512	0.716	0.866	1.145	1.305	73/2
A+B: 7/2[633]	-0.018	0.061	0.158	0.272	0.404	0.553	0.720	0.905	1.107	1.326	
¹⁷¹ Hf	0.560	0.625	0.710	0.832	-	-	-	-	-	-	
C: 3/2[521]	0.559	0.624	0.714	0.830	0.971	1.138	1.331	1.550	1.794	2.064	a
¹⁷¹ Hf	0.022	0.089	0.103	0.255	0.278	0.508	0.537	0.838	0.867	1.234	85/2
D+E: 1/2[521]	0.018	0.097	0.139	0.297	0.362	0.575	0.656	0.912	1.006	1.296	
¹⁷¹ Hf	0.050	0.142	0.259	0.399	0.561	0.742	0.941	1.153	1.378	1.614	67/2
F+G: 5/2[512]	0.050	0.143	0.260	0.398	0.555	0.731	0.924	1.132	1.356	1.593	
¹⁷¹ Hf	1.645	1.794	1.977	2.189	2.426	2.686	2.967	3.266	3.585	3.920	43/2
I+J: 19/2 ⁺	1.611	1.795	1.996	2.215	2.451	2.705	2.976	3.265	3.571	3.895	a
¹⁷¹ Hf	1.985	2.161	2.372	2.611	2.876	3.165	3.476	3.807	4.156	4.522	47/2
K+L: 23/2 ⁻	1.943	2.158	2.391	2.641	2.908	3.193	3.494	3.813	4.149	4.503	a
¹⁷¹ Hf	5.432	-	6.328	-	7.285	-	8.299	-	-	-	
M: 49/2 ⁺	5.432	5.873	6.328	6.799	7.285	7.785	8.299	8.827	9.370	9.926	
¹⁷¹ Hf	5.671	-	6.456	-	7.285	-	8.153	-	-	-	
N: 51/2 ⁻	5.671	6.058	6.457	6.866	7.285	7.714	8.153	8.602	9.060	9.528	
¹⁷¹ Ta	0.0	-	0.095	-	0.292	-	0.590	-	0.979	-	69/2
A: 5/2 ⁻	-0.020	0.039	0.114	0.206	0.315	0.441	0.583	0.742	0.918	1.111	a, b

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=171 (continuation of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷¹ Ta B: 5/2[402]	0.0 -0.001	0.113 0.115	0.253 0.255	0.414 0.415	0.598 0.594	0.798 0.790	1.014 1.002	1.243 1.227	1.482 1.465	1.734 1.716	x, 35/2
¹⁷¹ Ta C: 33/2 ⁺	2.990 2.992	- 3.249	3.521 3.520	- 3.805	4.107 4.104	- 4.416	4.743 4.741	- 5.079	5.430 5.430	- 5.794	x, 69/2 b
¹⁷¹ Ta D: 7/2[404]	0.052 0.052	0.183 0.185	0.336 0.338	0.510 0.510	0.701 0.698	0.906 0.900	1.124 1.117	1.354 1.347	1.595 1.589	1.847 1.843	43/2
¹⁷¹ Ta E: 9/2[514]	0.236 0.232	0.367 0.376	0.528 0.539	0.710 0.720	0.918 0.918	1.137 1.131	1.380 1.359	1.626 1.600	1.891 1.854	2.156 2.120	39/2
¹⁷¹ W A+B: 5/2[523]	0.0 0.001	0.102 0.104	0.233 0.229	0.389 0.375	0.548 0.538	0.736 0.717	0.915 0.912	1.131 1.120	1.332 1.340	1.577 1.573	69/2
¹⁷¹ W C: 13/2 ⁺	0.183 0.173	- 0.300	0.395 0.443	- 0.603	0.739 0.780	- 0.973	1.190 1.183	- 1.410	1.722 1.653	- 1.912	65/2 b
¹⁷¹ W D: 11/2 ⁺	0.183 0.173	- 0.295	0.391 0.436	- 0.596	0.739 0.774	- 0.970	1.197 1.186	- 1.419	1.738 1.671	- 1.941	55/2 b
¹⁷¹ W E+F: 25/2 ⁻	2.084 2.011	- 2.208	2.461 2.419	2.601 2.645	2.872 2.886	3.069 3.141	3.376 3.410	3.618 3.694	3.968 3.993	4.249 4.306	63/2 a
¹⁷¹ W G: 41/2	3.955 3.951	- 4.297	4.649 4.658	- 5.036	5.436 5.429	- 5.839	- 6.265	- 6.707	- 7.165	- 7.639	- a
¹⁷¹ Re A+B: 9/2[514]	0.0 -0.057	0.157 0.171	0.381 0.394	0.615 0.619	0.895 0.851	1.163 1.090	1.475 1.335	1.759 1.588	2.073 1.848	2.345 2.114	57/2
¹⁷¹ Re C: 5/2 ⁻	0.190 0.169	- 0.239	0.285 0.328	- 0.436	0.515 0.563	- 0.708	0.870 0.872	- 1.053	1.327 1.251	- 1.466	53/2
¹⁷¹ Re E: 3/2 ⁺	0.577 0.577	- 0.698	0.850 0.850	- 1.028	1.228 1.228	- 1.447	(1.624) 1.683	- 1.935	(2.024) 2.201	- 2.480	-
¹⁷¹ Re F+G: 5/2[402]	0.232 0.219	0.382 0.406	0.554 0.586	0.758 0.771	0.961 0.963	1.186 1.162	1.394 1.369	1.632 1.582	1.865 1.801	2.105 2.028	59/2
¹⁷¹ Re H: 17/2 ⁺	1.425 1.407	- 1.575	1.734 1.757	- 1.953	2.140 2.164	- 2.387	2.613 2.624	- 2.872	3.142 3.133	- 3.406	53/2
¹⁷¹ Os A+B: 5/2[523]	0.0 -0.043	0.077 0.082	0.208 0.232	0.445 0.402	0.601 0.591	0.895 0.797	1.110 1.017	1.400 1.252	1.643 1.499	1.911 1.759	43/2
¹⁷¹ Os C+D: 25/2 ⁻	2.337 2.160	2.414 2.352	2.521 2.557	2.676 2.777	2.894 3.011	3.115 3.259	3.416 3.521	3.726 3.798	4.055 4.088	4.459 4.393	53/2 a
¹⁷¹ Os F: 37/2 ⁺	3.333 3.314	- 3.606	3.897 3.913	- 4.234	4.539 4.571	- 4.923	5.278 5.289	- 5.671	6.110 6.067	- 6.479	-
¹⁷¹ Os E+G: 13/2 ⁺	0.186 0.193	0.626 0.370	0.440 0.570	1.068 0.790	0.887 1.032	1.620 1.294	1.454 1.576	2.202 1.877	2.082 2.197	2.794 2.535	43/2
¹⁷¹ Os H: 41/2 ⁺	4.160 4.160	- 4.518	4.884 4.885	- 5.260	5.645 5.645	- 6.037	- 6.438	- 6.847	- 7.265	- 7.690	-
¹⁷¹ Os I+J: 17/2 ⁺	1.138 1.116	1.286 1.321	1.539 1.546	1.802 1.789	2.018 2.050	2.423 2.330	2.560 2.627	3.078 2.940	3.175 3.270	- 3.616	-
¹⁷¹ Ir A+B: 11/2 ⁻	0.0 0.025	0.436 0.391	0.633 0.727	1.115 1.058	1.353 1.391	1.823 1.727	2.106 2.070	2.444 2.418	2.730 2.774	- 3.136	x
¹⁷¹ Ir C: 23/2 ⁻	2.326 2.213	2.381 2.389	2.496 2.578	2.677 2.782	2.945 3.000	3.284 3.232	3.631 3.477	- 3.737	- 4.011	- 4.299	x a
¹⁷¹ Ir D: 21/2 ⁻	2.008 2.006	2.334 2.339	2.705 2.701	- 3.093	- 3.513	- 3.962	- 4.440	- 4.947	- 5.484	- 6.049	x a
¹⁷¹ Ir E: 23/2 ⁻	0.0 -0.024	0.098 0.117	0.223 0.268	0.424 0.432	0.670 0.606	0.955 0.791	1.275 0.988	1.631 1.196	- 1.415	- 1.646	y a
¹⁷¹ Ir F: 9/2 ⁻	0.0 -0.009	- 0.140	0.300 0.316	- 0.520	0.774 0.751	- 1.008	1.361 1.293	- 1.606	1.972 1.945	- 2.311	z a
¹⁷¹ Ir G: 17/2 ⁻	1.365 1.364	1.609 1.611	1.884 1.883	- 2.181	- 2.505	- 2.855	- 3.231	- 3.633	- 4.061	- 4.514	x a

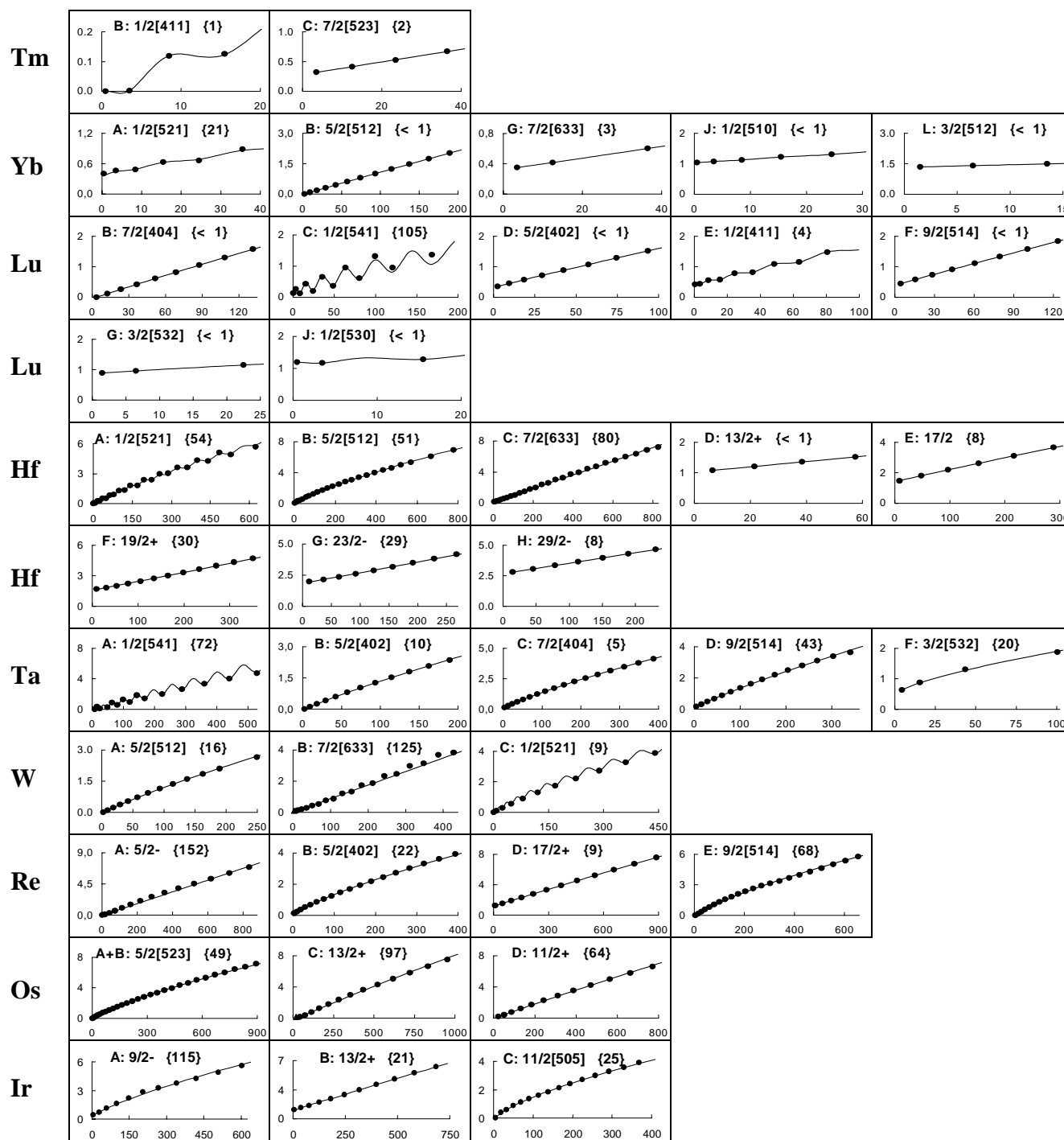
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=171 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷¹ Pt	0.0	-	0.445	-	1.050	-	1.720	-	2.406	-	x, 33/2
A: 13/2 ⁺	-0.007	0.214	0.460	0.729	1.021	1.334	1.668	2.021	2.393	2.784	

A=173

Shirley V.S. //NDS, 1995, v.75, p.377



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=173

Shirley V.S. //NDS, 1995, v.75, p.377

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹⁷³ Tm B: 1/2[411]	0.0 0.0	0.002 0.002	0.119 0.120	0.125 0.123	- 0.278	- 0.281	- 0.462	- 0.466	- 0.668	- 0.672	
¹⁷³ Tm C: 7/2[523]	0.318 0.317	0.412 0.412	0.526 0.529	0.669 0.667	- 0.825	- 1.005	- 1.206	- 1.429	- 1.672	- 1.937	a
¹⁷³ Yb A: 1/2[521]	0.399 0.364	0.462 0.443	0.482 0.487	0.627 0.625	0.659 0.685	0.882 0.861	- 0.934	- 1.138	- 1.220	- 1.448	
¹⁷³ Yb B: 5/2[512]	0.0 0.0	0.079 0.079	0.179 0.179	0.302 0.302	0.446 0.446	0.611 0.611	0.796 0.796	1.002 1.002	1.227 1.227	1.472 1.472	27/2
¹⁷³ Yb G: 7/2[633]	0.351 0.349	0.413 0.417	- 0.501	0.603 0.601	- 0.715	- 0.845	- 0.991	- 1.151	- 1.327	- 1.518	a
¹⁷³ Yb J: 1/2[510]	1.033 1.033	1.075 1.075	1.122 1.122	1.220 1.220	1.306 1.306	- 1.459	- 1.583	- 1.793	- 1.954	- 2.220	a
¹⁷³ Yb L: 3/2[512]	1.341 1.341	1.406 1.406	1.494 1.494	- 1.603	- 1.731	- 1.876	- 2.037	- 2.212	- 2.401	- 2.602	
¹⁷³ Lu B: 7/2[404]	0.0 0.0	0.117 0.117	0.259 0.259	0.424 0.424	0.611 0.611	0.821 0.821	1.051 1.052	1.302 1.302	1.574 1.573	- 1.861	
¹⁷³ Lu C: 1/2[541]	0.128 0.104	0.263 0.290	0.124 0.121	0.428 0.475	0.198 0.224	0.654 0.691	0.359 0.381	0.949 0.933	0.607 0.577	1.316 1.199	25/2
¹⁷³ Lu D: 5/2[402]	0.357 0.357	0.451 0.451	0.571 0.571	0.715 0.715	0.884 0.884	1.075 1.075	1.287 1.287	1.521 1.521	- 1.775	- 2.048	
¹⁷³ Lu E: 1/2[411]	0.425 0.424	0.435 0.436	0.552 0.551	0.576 0.579	0.778 0.778	0.820 0.820	1.092 1.092	1.155 1.147	1.475 1.484	- 1.549	
¹⁷³ Lu F: 9/2[514]	0.449 0.449	0.580 0.580	0.735 0.735	0.912 0.912	1.112 1.111	1.333 1.333	1.575 1.575	1.837 1.838	- 2.121	- 2.424	
¹⁷³ Lu G: 3/2[532]	0.889 0.889	0.958 0.958	- 1.046	1.151 1.151	- 1.270	- 1.402	- 1.545	- 1.698	- 1.861	- 2.033	
¹⁷³ Lu J: 1/2[530]	1.193 1.193	1.162 1.162	- 1.325	1.275 1.275	- 1.492	- 1.430	- 1.686	- 1.616	- 1.902	- 1.824	
¹⁷³ Hf A: 1/2[521]	0.0 -0.003	0.070 0.070	0.081 0.081	0.242 0.246	0.262 0.265	0.509 0.514	0.536 0.540	0.862 0.864	0.895 0.897	1.294 1.288	49/2
¹⁷³ Hf B: 5/2[512]	0.107 0.105	0.197 0.201	0.312 0.321	0.451 0.462	0.614 0.623	0.798 0.802	1.003 0.999	1.226 1.211	1.467 1.437	1.722 1.678	55/2
¹⁷³ Hf C: 7/2[633]	0.198 0.178	0.255 0.257	0.336 0.353	0.435 0.467	0.567 0.598	0.704 0.746	0.896 0.912	1.060 1.096	1.318 1.297	1.498 1.515	57/2 a
¹⁷³ Hf D: 13/2 ⁺	1.078 1.078	1.208 1.208	1.355 1.356	1.521 1.521	- 1.703	- 1.902	- 2.119	- 2.354	- 2.606	- 2.875	a
¹⁷³ Hf E: 17/2 ⁻	1.473 1.477	- 1.633	1.813 1.804	- 1.990	2.191 2.189	- 2.401	2.618 2.627	- 2.864	3.105 3.114	- 3.376	37/2 b
¹⁷³ Hf F: 19/2 ⁺	1.701 1.643	1.817 1.830	2.007 2.034	2.223 2.256	2.465 2.496	2.729 2.753	3.015 3.029	3.320 3.322	3.643 3.633	3.983 3.961	41/2 a
¹⁷³ Hf G: 23/2 ⁻	1.982 1.940	2.145 2.153	2.354 2.382	2.596 2.629	2.866 2.892	3.159 3.173	3.475 3.471	3.811 3.785	4.166 4.117	- 4.465	a
¹⁷³ Hf H: 29/2 ⁻	2.815 2.808	3.071 3.072	3.347 3.353	3.642 3.650	3.959 3.965	4.299 4.297	4.661 4.646	- 5.012	- 5.395	- 5.795	a
¹⁷³ Ta A: 1/2[541]	- -0.042	- 0.091	0.0 -0.022	0.325 0.289	0.083 0.084	- 0.572	0.270 0.278	0.887 0.940	0.561 0.557	1.294 1.393	45/2
¹⁷³ Ta B: 5/2[402]	0.0 -0.001	0.110 0.110	0.246 0.247	0.408 0.408	0.593 0.592	0.801 0.796	1.026 1.020	1.271 1.261	1.526 1.519	1.800 1.793	x, 27/2
¹⁷³ Ta C: 7/2[404]	0.130 0.129	0.260 0.262	0.414 0.416	0.590 0.591	0.785 0.783	0.997 0.993	1.224 1.218	1.464 1.457	1.716 1.710	1.980 1.976	x, 39/2

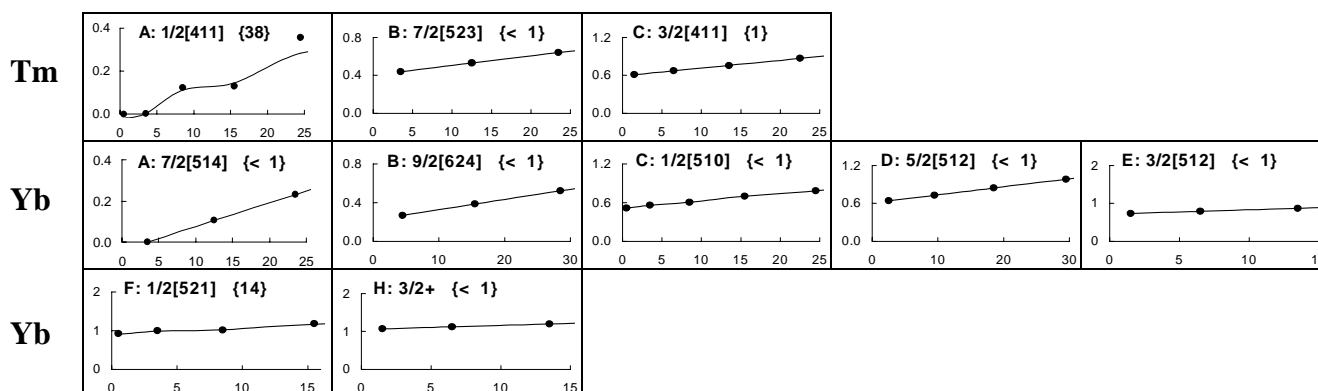
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=173 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷³ Ta D: 9/2[514]	0.166 0.163	0.306 0.310	0.472 0.479	0.661 0.668	0.874 0.875	1.105 1.101	1.358 1.342	1.622 1.600	1.906 1.872	2.194 2.159	x, 37/2
¹⁷³ Ta F: 3/2[532]	0.634 0.640	0.877 0.868	- 1.075	1.304 1.279	- 1.483	- 1.691	1.875 1.903	- 2.119	- 2.339	- 2.564	
¹⁷³ W A: 5/2[512]	0.0 -0.001	0.095 0.097	0.217 0.219	0.362 0.362	0.529 0.526	0.716 0.708	0.918 0.907	1.135 1.121	1.362 1.351	1.601 1.594	31/2
¹⁷³ W B: 7/2[633]	0.085 0.032	0.128 0.111	0.200 0.206	0.274 0.319	0.424 0.450	0.518 0.597	0.763 0.763	0.867 0.945	1.204 1.145	1.316 1.362	41/2
¹⁷³ W C: 1/2[521]	0.0 0.009	- 0.134	0.089 0.089	- 0.353	0.280 0.280	- 0.650	0.555 0.555	- 1.008	0.896 0.896	- 1.417	x, 41/2
¹⁷³ Re A: 5/2 ⁻	0.0 -0.024	- 0.035	0.087 0.112	- 0.205	0.294 0.316	- 0.443	0.615 0.587	- 0.749	1.030 0.927	- 1.123	57/2 b
¹⁷³ Re B: 5/2[402]	0.118 0.119	0.231 0.229	0.364 0.360	0.515 0.509	0.677 0.675	0.853 0.856	1.040 1.051	1.243 1.258	1.454 1.476	1.685 1.706	39/2
¹⁷³ Re D: 17/2 ⁺	1.255 1.248	- 1.389	1.541 1.545	- 1.715	1.885 1.900	- 2.099	2.308 2.313	- 2.540	2.787 2.782	- 3.038	61/2 b
¹⁷³ Re E: 9/2[514]	0.0 -0.009	0.160 0.172	0.360 0.365	0.575 0.569	0.813 0.784	1.052 1.011	1.304 1.248	1.554 1.494	1.815 1.750	2.077 2.015	x, 51/2
¹⁷³ Os A+B: 5/2[523]	0.0 -0.008	0.092 0.095	0.220 0.219	0.388 0.363	0.535 0.524	0.722 0.701	0.891 0.891	1.094 1.095	1.291 1.311	1.520 1.539	61/2
¹⁷³ Os C: 13/2 ⁺	0.141 0.135	- 0.270	0.373 0.423	- 0.593	0.764 0.780	- 0.984	1.249 1.204	- 1.441	1.785 1.694	- 1.962	x, 61/2 b
¹⁷³ Os D: 11/2 ⁺	0.187 0.181	- 0.303	0.406 0.444	- 0.603	0.769 0.780	- 0.975	1.215 1.187	- 1.417	1.717 1.663	- 1.927	x, 55/2 b
¹⁷³ Ir A: 9/2 ⁻	0.424 0.409	- 0.568	0.686 0.744	- 0.933	1.109 1.137	- 1.353	1.635 1.581	- 1.820	2.219 2.070	- 2.330	49/2 b
¹⁷³ Ir B: 13/2 ⁺	1.095 1.072	- 1.187	1.295 1.317	- 1.463	1.605 1.624	- 1.800	1.981 1.992	- 2.199	2.420 2.422	- 2.659	53/2 a, b
¹⁷³ Ir C: 11/2[505]	0.0 0.030	0.374 0.328	0.567 0.592	0.875 0.848	1.099 1.103	1.347 1.360	1.592 1.620	1.853 1.883	2.124 2.151	2.409 2.424	39/2

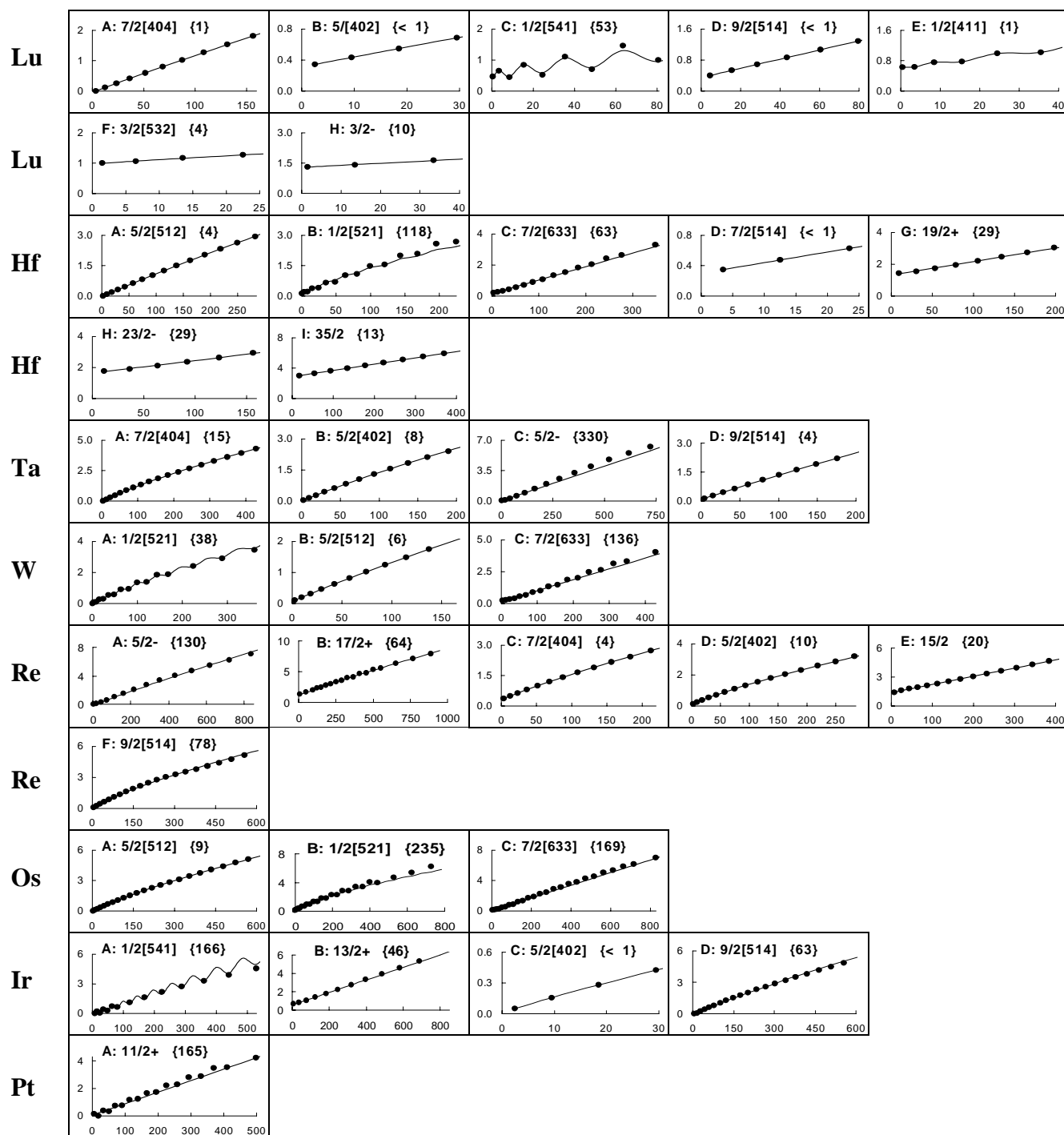
A=175

Macchiavelli A.O., Browne E. //NDS, 1993, v.69, p.903



A=175 (continuation)

Macchiavelli A.O., Browne E. //NDS, 1993, v.69, p.903



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{175}Tm A: 1/2[411]	0.0	0.003	0.124	0.131	0.358	-	-	-	-	-	
^{175}Tm B: 7/2[523]	-0.020	0.003	0.112	0.145	0.284	0.323	0.485	0.529	0.708	0.756	
^{175}Tm C: 3/2[411]	0.611	0.672	0.756	0.870	-	-	-	-	-	-	
^{175}Tm C: 3/2[411]	0.610	0.672	0.758	0.869	1.004	1.164	1.348	1.557	1.790	2.049	a

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=175 (continuation of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷⁵ Yb	0.0	0.105	0.231	-	-	-	-	-	-	-	
A: 7/2[514]	0.0	0.105	0.231	0.380	0.551	0.742	0.954	1.185	1.436	1.706	
¹⁷⁵ Yb	0.268	0.385	0.522	-	-	-	-	-	-	-	
B: 9/2[624]	0.267	0.385	0.522	0.679	0.855	1.049	1.260	1.489	1.734	1.996	
¹⁷⁵ Yb	0.515	0.556	0.603	0.698	0.782	-	-	-	-	-	
C: 1/2[510]	0.515	0.556	0.603	0.698	0.782	0.931	1.051	1.253	1.409	1.661	
¹⁷⁵ Yb	0.639	0.729	0.844	0.983	-	-	-	-	-	-	
D: 5/2[512]	0.639	0.729	0.844	0.983	1.145	1.330	1.537	1.766	2.014	2.282	
¹⁷⁵ Yb	0.811	0.872	0.957	-	-	-	-	-	-	-	
E: 3/2[512]	0.811	0.872	0.957	1.067	1.201	1.359	1.542	1.749	1.980	2.236	a
¹⁷⁵ Yb	0.920	0.992	1.009	1.175	-	-	-	-	-	-	
F: 1/2[521]	0.899	0.982	1.024	1.168	1.226	1.410	1.479	1.692	1.771	2.008	
¹⁷⁵ Yb	1.068	1.121	1.197	-	-	-	-	-	-	-	
H: 3/2 ⁺	1.068	1.122	1.197	1.294	1.412	1.552	1.713	1.896	2.100	2.326	a
¹⁷⁵ Lu	0.0	0.114	0.252	0.412	0.595	0.800	1.025	1.269	1.531	1.811	27/2
A: 7/2[404]	0.0	0.114	0.252	0.412	0.595	0.799	1.024	1.268	1.531	1.811	
¹⁷⁵ Lu	0.343	0.433	0.546	0.684	-	-	-	-	-	-	
B: 5/2[402]	0.343	0.433	0.547	0.684	0.845	1.028	1.233	1.459	1.705	1.970	
¹⁷⁵ Lu	0.371	0.515	0.353	0.673	0.415	0.886	0.562	1.167	0.798	-	
C: 1/2[541]	0.321	0.529	0.366	0.682	0.468	0.853	0.603	1.041	0.762	1.244	
¹⁷⁵ Lu	0.396	0.529	0.685	0.863	1.063	1.285	-	-	-	-	
D: 9/2[514]	0.396	0.529	0.685	0.863	1.063	1.285	1.527	1.789	2.070	2.370	
¹⁷⁵ Lu	0.627	0.633	0.757	0.774	0.990	1.020	-	-	-	-	
E: 1/2[411]	0.626	0.633	0.757	0.774	0.992	1.019	1.325	1.360	1.749	1.792	
¹⁷⁵ Lu	0.999	1.063	1.167	1.270	-	-	-	-	-	-	
F: 3/2[532]	0.997	1.068	1.161	1.272	1.400	1.542	1.696	1.863	2.040	2.227	
¹⁷⁵ Lu	1.317	-	1.415	-	1.638	-	-	-	-	-	
H: 3/2 ⁻	1.309	1.359	1.430	1.520	1.631	1.762	1.913	2.084	2.275	2.487	a, b
¹⁷⁵ Hf	0.0	0.082	0.186	0.313	0.461	0.630	0.819	1.027	1.254	1.497	33/2
A: 5/2[512]	0.0	0.082	0.186	0.313	0.461	0.629	0.817	1.025	1.250	1.494	
¹⁷⁵ Hf	0.126	0.196	0.213	0.375	0.406	0.654	0.699	1.025	1.082	1.477	29/2
B: 1/2[521]	0.094	0.178	0.236	0.392	0.476	0.679	0.782	1.020	1.139	1.406	
¹⁷⁵ Hf	0.207	0.258	0.335	0.436	0.566	0.711	0.897	1.076	1.323	1.523	37/2
C: 7/2[633]	0.184	0.262	0.358	0.471	0.602	0.749	0.915	1.097	1.297	1.515	a
¹⁷⁵ Hf	0.348	0.475	0.629	-	-	-	-	-	-	-	
D: 7/2[514]	0.348	0.475	0.629	0.810	1.017	1.250	1.509	1.792	2.099	2.430	
¹⁷⁵ Hf	1.434	1.546	1.736	1.954	2.196	2.459	2.742	3.045	-	-	
G: 19/2 ⁺	1.390	1.569	1.765	1.978	2.208	2.456	2.720	3.001	3.299	3.615	a
¹⁷⁵ Hf	1.766	1.905	2.114	2.360	2.634	2.933	-	-	-	-	
H: 23/2 ⁻	1.730	1.930	2.146	2.378	2.626	2.890	3.170	3.466	3.778	4.106	a
¹⁷⁵ Hf	3.016	3.306	3.630	3.978	4.344	4.727	5.123	5.531	5.948	6.371	55/2
I: 35/2	3.003	3.315	3.643	3.987	4.346	4.721	5.111	5.516	5.936	6.370	
¹⁷⁵ Ta	0.0	0.130	0.284	0.461	0.658	0.873	1.102	1.342	1.593	1.850	41/2
A: 7/2[404]	-0.002	0.132	0.287	0.462	0.654	0.863	1.086	1.323	1.574	1.836	
¹⁷⁵ Ta	0.036	0.143	0.277	0.436	0.620	0.826	1.052	1.298	1.558	1.832	27/2
B: 5/2[402]	0.036	0.143	0.277	0.437	0.619	0.823	1.047	1.290	1.551	1.828	
¹⁷⁵ Ta	0.051	-	0.124	-	0.296	-	0.571	-	0.943	-	57/2
C: 5/2 ⁻	0.042	0.098	0.169	0.257	0.361	0.481	0.617	0.769	0.937	1.121	a, b
¹⁷⁵ Ta	0.132	0.276	0.447	0.641	0.857	1.094	1.351	1.621	1.911	2.208	
D: 9/2[514]	0.131	0.278	0.448	0.641	0.855	1.090	1.345	1.619	1.911	2.220	

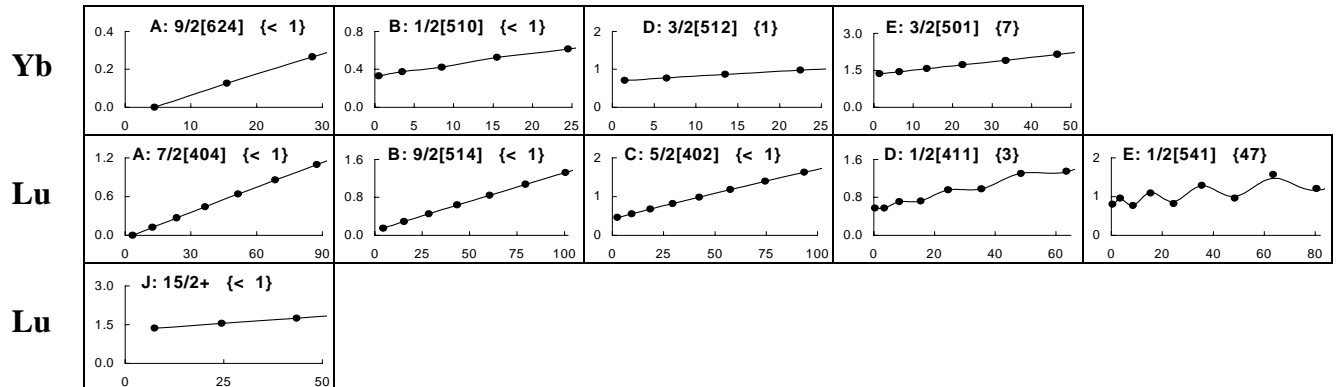
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=175 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹⁷⁵ W A: 1/2[521]	0.0 -0.004	0.075 0.075	0.089 0.089	0.260 0.264	0.284 0.288	0.540 0.545	0.573 0.576	0.905 0.901	0.944 0.939	1.343 1.322	37/2
¹⁷⁵ W B: 5/2[512]	0.104 0.104	0.196 0.197	0.315 0.316	0.458 0.458	0.624 0.623	0.812 0.809	1.020 1.016	1.247 1.241	1.488 1.485	1.747 1.746	25/2
¹⁷⁵ W C: 7/2[633]	0.235 0.187	0.266 0.264	0.331 0.358	0.409 0.469	0.551 0.597	0.661 0.742	0.892 0.904	1.016 1.084	1.339 1.280	1.469 1.493	41/2 a
¹⁷⁵ Re A: 5/2 ⁻	0.0 -0.082	- -0.014	0.076 0.073	- 0.180	0.272 0.306	- 0.451	0.587 0.614	- 0.795	1.009 0.995	- 1.212	57/2 b
¹⁷⁵ Re B: 17/2 ⁺	1.325 1.304	- 1.465	1.617 1.641	- 1.833	1.992 2.040	2.326 2.262	2.440 2.498	2.800 2.748	2.951 3.012	3.352 3.289	61/2 b
¹⁷⁵ Re C: 7/2[404]	0.362 0.362	0.489 0.489	0.638 0.638	0.807 0.807	0.995 0.994	1.198 1.199	1.418 1.419	1.656 1.655	1.898 1.904	2.169 2.166	29/2
¹⁷⁵ Re D: 5/2[402]	0.125 0.125	0.240 0.240	0.378 0.377	0.536 0.534	0.710 0.708	0.899 0.899	1.100 1.103	1.317 1.322	1.543 1.552	1.787 1.794	33/2
¹⁷⁵ Re E: 15/2	1.404 1.443	1.615 1.588	1.794 1.750	1.944 1.929	2.121 2.124	2.323 2.337	2.549 2.568	2.797 2.815	3.066 3.079	3.354 3.360	41/2 a
¹⁷⁵ Re F: 9/2[514]	0.076 0.075	0.237 0.251	0.428 0.440	0.638 0.643	0.869 0.859	1.109 1.087	1.365 1.326	1.625 1.575	1.899 1.835	2.177 2.105	47/2
¹⁷⁵ Os A: 5/2[512]	0.0 -0.001	0.090 0.092	0.208 0.208	0.347 0.345	0.505 0.500	0.680 0.673	0.869 0.862	1.073 1.066	1.289 1.284	1.518 1.516	47/2
¹⁷⁵ Os B: 1/2[521]	0.102 0.077	0.176 0.163	0.194 0.211	0.356 0.370	0.382 0.438	0.615 0.645	0.645 0.728	0.940 0.972	0.970 1.067	1.327 1.340	53/2
¹⁷⁵ Os C: 7/2[633]	0.106 0.080	0.148 0.155	0.218 0.247	0.279 0.355	0.444 0.480	0.524 0.621	0.784 0.779	0.890 0.954	1.211 1.145	1.351 1.354	57/2 a
¹⁷⁵ Ir A: 1/2[541]	- -0.104	- 0.004	0.0 -0.068	0.196 0.184	0.049 0.055	0.422 0.450	0.279 0.264	0.718 0.802	0.652 0.559	- 1.238	45/2
¹⁷⁵ Ir B: 13/2 ⁺	0.660 0.618	- 0.720	0.812 0.836	- 0.966	1.061 1.108	- 1.265	1.388 1.435	- 1.619	1.784 1.816	- 2.027	57/2 a, b
¹⁷⁵ Ir C: 5/2[402]	0.053 0.053	0.156 0.156	0.282 0.281	0.426 0.426	- 0.589	- 0.767	- 0.960	- 1.166	- 1.385	- 1.616	
¹⁷⁵ Ir D: 9/2[514]	0.0 -0.013	0.089 0.107	0.263 0.248	0.433 0.407	0.622 0.585	0.822 0.780	1.038 0.992	1.266 1.220	1.508 1.464	1.762 1.722	x, 47/2
¹⁷⁵ Pt A: 11/2 ⁺	0.139 0.099	0.0 0.208	0.382 0.333	0.328 0.475	0.744 0.634	0.764 0.810	1.172 1.002	1.231 1.211	1.663 1.437	1.738 1.679	45/2 a

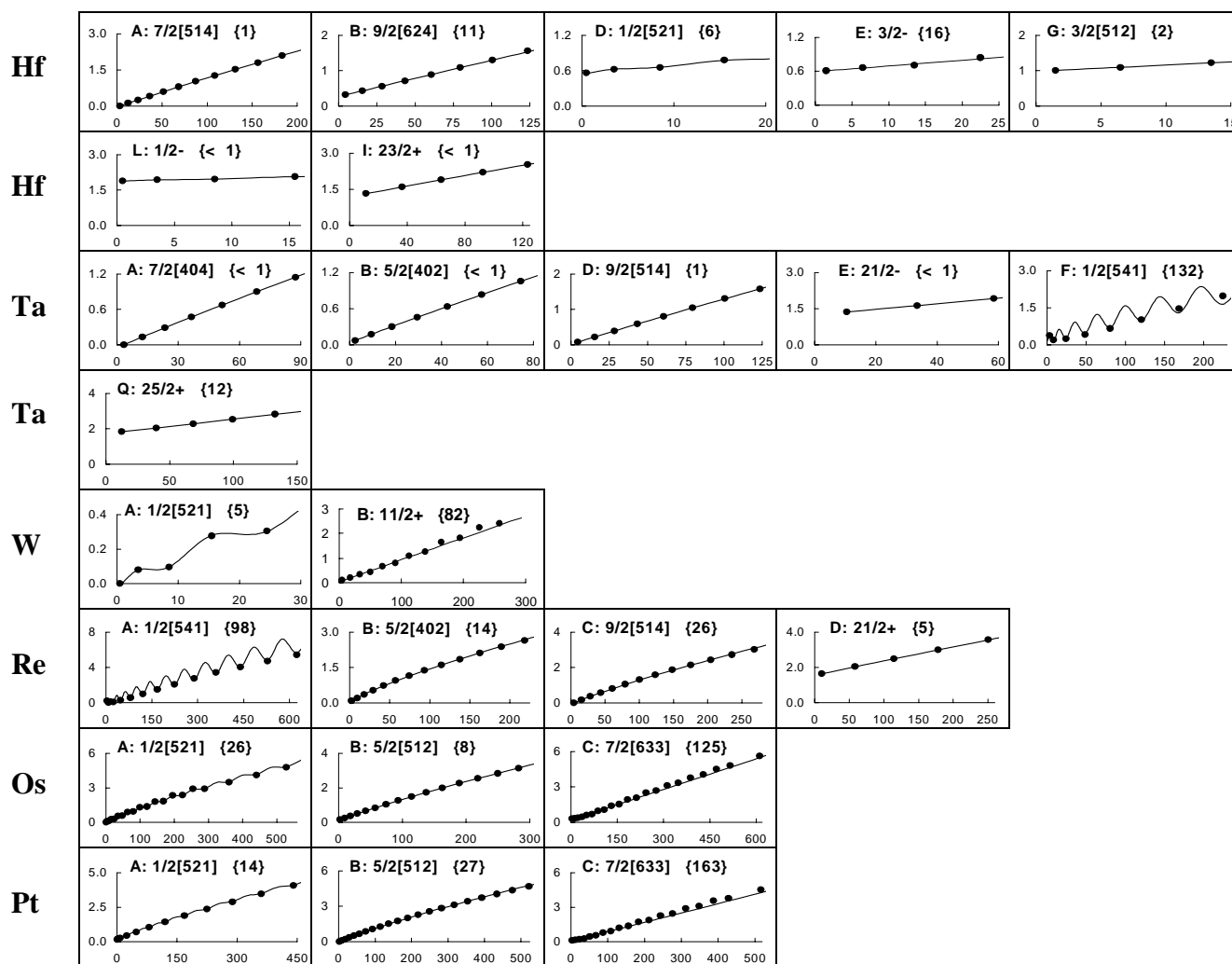
A=177

Browne E. //NDS, 1993, v.68, p.747



A=177 (continuation)

Browne E. //NDS, 1993, v.68, p.747



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷⁷ Yb	0.0	0.125	0.265	-	-	-	-	-	-	-	
A: 9/2[624]	0.0	0.125	0.265	0.419	0.585	0.764	0.954	1.154	1.365	1.584	
¹⁷⁷ Yb	0.331	0.375	0.423	0.526	0.613	-	-	-	-	-	
B: 1/2[510]	0.331	0.375	0.423	0.526	0.613	0.774	0.899	1.120	1.283	1.562	a
¹⁷⁷ Yb	0.704	0.771	0.865	0.975	-	-	-	-	-	-	
D: 3/2[512]	0.703	0.772	0.864	0.976	1.107	1.254	1.416	1.593	1.782	1.983	
¹⁷⁷ Yb	1.359	1.441	1.562	1.725	1.899	2.145	-	-	-	-	
E: 3/2[501]	1.356	1.443	1.564	1.720	1.911	2.136	2.397	2.691	3.021	3.385	a
¹⁷⁷ Lu	0.0	0.122	0.269	0.441	0.636	0.854	1.094	-	-	-	
A: 7/2[404]	0.0	0.122	0.269	0.440	0.636	0.854	1.094	1.356	1.638	1.939	
¹⁷⁷ Lu	0.150	0.289	0.451	0.637	0.845	1.074	1.322	-	-	-	
B: 9/2[514]	0.150	0.289	0.452	0.637	0.844	1.073	1.323	1.593	1.882	2.190	
¹⁷⁷ Lu	0.458	0.552	0.672	0.817	0.985	1.177	1.390	1.623	-	-	
C: 5/2[402]	0.458	0.552	0.672	0.817	0.985	1.177	1.390	1.624	1.878	2.151	
¹⁷⁷ Lu	0.570	0.574	0.710	0.721	0.957	0.980	1.303	1.345	-	-	
D: 1/2[411]	0.568	0.575	0.707	0.722	0.956	0.979	1.308	1.339	1.756	1.794	
¹⁷⁷ Lu	0.795	0.956	0.762	1.089	0.811	1.287	0.957	1.564	1.202	-	
E: 1/2[541]	0.732	0.946	0.768	1.103	0.867	1.278	1.001	1.470	1.160	1.676	
¹⁷⁷ Lu	1.357	1.544	1.750	-	-	-	-	-	-	-	
J: 15/2 ⁺	1.357	1.544	1.750	1.973	2.214	2.471	2.743	3.031	3.333	3.649	

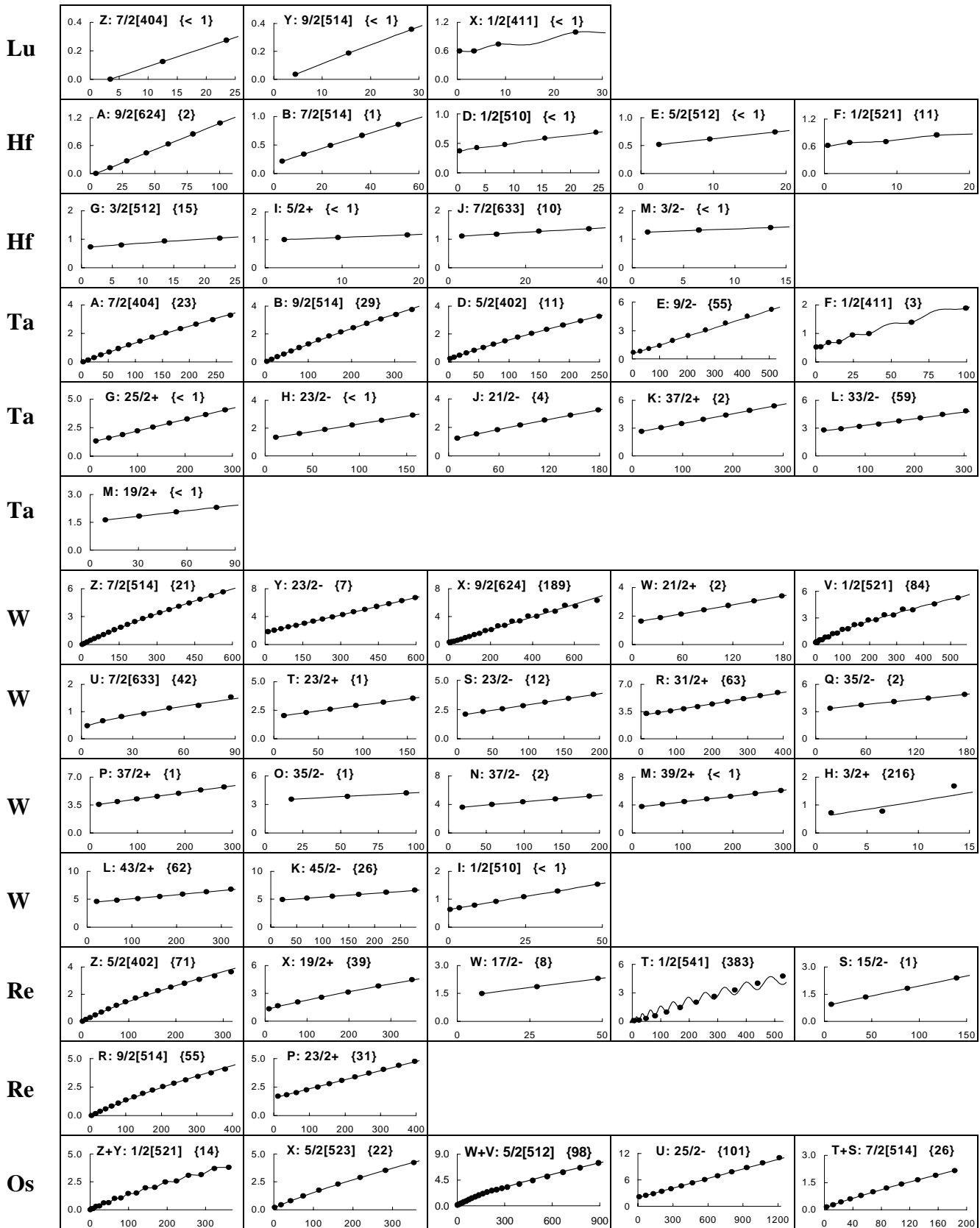
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=177 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷⁷ Hf	0.0	0.113	0.250	0.409	0.591	0.794	1.018	1.260	1.521	1.798	25/2
A: 7/2[514]	0.0	0.113	0.250	0.409	0.591	0.794	1.017	1.259	1.520	1.799	
¹⁷⁷ Hf	0.321	0.427	0.555	0.709	0.883	1.087	1.301	1.561	-	-	
B: 9/2[624]	0.317	0.429	0.562	0.715	0.889	1.083	1.298	1.533	1.788	2.064	a
¹⁷⁷ Hf	0.559	0.624	0.652	0.780	-	-	-	-	-	-	
D: 1/2[521]	0.551	0.623	0.658	0.776	0.823	0.970	1.027	1.196	1.260	1.447	
¹⁷⁷ Hf	0.608	0.665	0.703	0.839	-	-	-	-	-	-	
E: 3/2 ⁻	0.605	0.657	0.729	0.822	0.936	1.070	1.225	1.401	1.597	1.814	a, b
¹⁷⁷ Hf	0.806	0.873	0.979	-	-	-	-	-	-	-	
G: 3/2[512]	0.804	0.876	0.977	1.107	1.266	1.454	1.671	1.916	2.190	2.494	a
¹⁷⁷ Hf	1.882	1.932	1.969	2.071	-	-	-	-	-	-	
L: 1/2 ⁻	1.882	1.932	1.969	2.071	2.129	2.268	2.342	2.511	2.596	2.790	
¹⁷⁷ Hf	1.315	1.593	1.888	2.199	2.526	-	-	-	-	-	
I: 23/2 ⁺	1.315	1.593	1.888	2.199	2.526	2.867	3.224	3.594	3.977	4.374	
¹⁷⁷ Ta	0.0	0.131	0.289	0.470	0.676	0.901	1.147	-	-	-	
A: 7/2[404]	0.0	0.131	0.288	0.470	0.675	0.901	1.148	1.415	1.700	2.003	
¹⁷⁷ Ta	0.070	0.172	0.300	0.454	0.632	0.833	1.054	-	-	-	
B: 5/2[402]	0.070	0.172	0.301	0.454	0.632	0.833	1.054	1.296	1.557	1.837	
¹⁷⁷ Ta	0.074	0.220	0.392	0.587	0.805	1.044	1.303	1.578	-	-	
D: 9/2[514]	0.074	0.221	0.392	0.587	0.804	1.043	1.302	1.581	1.880	2.196	
¹⁷⁷ Ta	1.355	1.626	1.921	-	-	-	-	-	-	-	
E: 21/2 ⁻	1.355	1.626	1.921	2.237	2.575	2.935	3.317	3.719	4.142	4.586	
¹⁷⁷ Ta	0.217	0.373	0.186	-	0.246	-	0.403	-	0.659	-	
F: 1/2[541]	0.154	0.393	0.154	0.634	0.265	0.914	0.451	1.230	0.691	1.577	
¹⁷⁷ Ta	1.835	2.038	2.272	2.529	2.828	-	-	-	-	-	
Q: 25/2 ⁺	1.825	2.046	2.284	2.538	2.809	3.096	3.399	3.719	4.055	4.408	a
¹⁷⁷ W	0.0	0.080	0.095	0.276	0.305	-	-	-	-	-	
A: 1/2[521]	-0.012	0.079	0.095	0.279	0.303	0.552	0.582	0.882	0.917	1.259	
¹⁷⁷ W	0.097	0.183	0.317	0.445	0.656	0.807	1.102	1.262	1.640	1.802	x, 33/2
B: 11/2 ⁺	0.089	0.204	0.338	0.489	0.658	0.844	1.049	1.271	1.511	1.769	a, c
¹⁷⁷ Re	0.039	0.196	0.0	-	0.078	-	0.262	-	0.567	-	49/2
A: 1/2[541]	-0.014	0.195	-0.022	0.461	0.076	0.819	0.276	1.264	0.574	1.786	
¹⁷⁷ Re	0.085	0.207	0.358	0.534	0.728	0.937	1.152	1.377	1.608	1.850	29/2
B: 5/2[402]	0.084	0.212	0.362	0.531	0.718	0.920	1.137	1.366	1.607	1.860	
¹⁷⁷ Re	0.0	0.163	0.356	0.570	0.805	1.053	1.316	1.583	1.861	2.141	x, 33/2
C: 9/2[514]	-0.003	0.167	0.358	0.567	0.793	1.034	1.291	1.561	1.844	2.139	
¹⁷⁷ Re	1.642	-	2.042	-	2.492	-	2.993	-	3.569	-	
D: 21/2 ⁺	1.643	1.833	2.038	2.258	2.492	2.739	3.001	3.276	3.564	3.865	b
¹⁷⁷ Os	0.0	0.076	0.091	0.259	0.285	0.534	0.567	0.886	0.925	1.305	45/2
A: 1/2[521]	-0.002	0.076	0.090	0.262	0.286	0.537	0.570	0.887	0.927	1.302	
¹⁷⁷ Os	0.152	0.240	0.355	0.495	0.656	0.837	1.037	1.252	1.484	1.728	33/2
B: 5/2[512]	0.151	0.243	0.358	0.496	0.655	0.834	1.031	1.245	1.476	1.722	
¹⁷⁷ Os	0.301	0.319	0.376	0.433	0.595	0.679	0.947	1.047	1.395	1.519	49/2
C: 7/2[633]	0.228	0.306	0.401	0.513	0.643	0.790	0.954	1.135	1.334	1.550	a
¹⁷⁷ Pt	0.148	0.214	0.241	-	0.431	-	0.699	-	1.033	-	41/2
A: 1/2[521]	0.152	0.210	0.242	0.371	0.426	0.616	0.691	0.935	1.027	1.316	
¹⁷⁷ Pt	0.0	0.081	0.197	0.336	0.492	0.667	0.855	1.060	1.277	1.509	45/2
B: 5/2[512]	-0.004	0.086	0.198	0.331	0.484	0.654	0.841	1.044	1.261	1.491	
¹⁷⁷ Pt	0.095	0.140	0.210	0.265	0.441	0.532	0.778	0.902	1.200	1.348	45/2
C: 7/2[633]	0.074	0.148	0.237	0.344	0.466	0.605	0.760	0.931	1.118	1.322	a

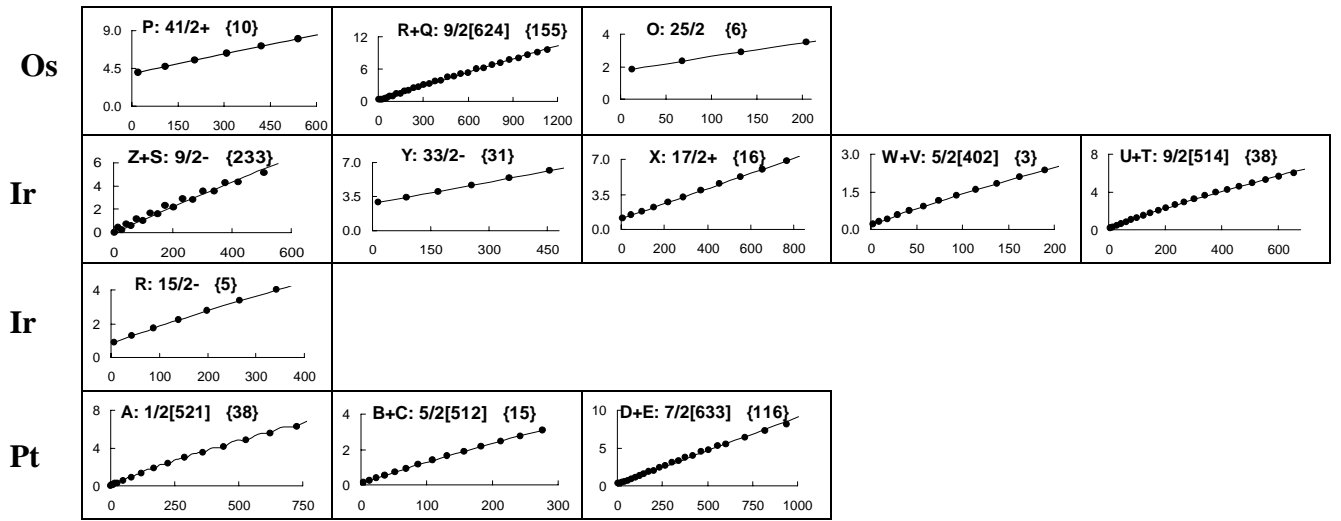
A=179

Baglin C. //NDS, 1994, v.72, p.617



A=179 (continuation)

Baglin C. //NDS, 1994, v.72, p.617



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷⁹ Lu Z: 7/2[404]	0.0	0.123	0.273	-	-	-	-	-	-	-	
¹⁷⁹ Lu Y: 9/2[514]	0.035	0.186	0.357	-	-	-	-	-	-	-	
¹⁷⁹ Lu X: 1/2[411]	0.592	0.593	0.735	0.735	0.987	-	-	-	-	-	
¹⁷⁹ Hf A: 9/2[624]	0.0	0.123	0.269	0.439	0.631	0.848	1.085	-	-	-	a
¹⁷⁹ Hf B: 7/2[514]	0.214	0.338	0.488	0.665	0.860	-	-	-	-	-	
¹⁷⁹ Hf D: 1/2[510]	0.375	0.421	0.476	0.582	0.681	-	-	-	-	-	
¹⁷⁹ Hf E: 5/2[512]	0.518	0.617	0.743	-	-	-	-	-	-	-	
¹⁷⁹ Hf F: 1/2[521]	0.614	0.679	0.701	0.849	-	-	-	-	-	-	
¹⁷⁹ Hf G: 3/2[512]	0.721	0.788	0.936	1.031	-	-	-	-	-	-	
¹⁷⁹ Hf I: 5/2 ⁺	1.004	1.078	1.176	-	-	-	-	-	-	-	a
¹⁷⁹ Hf J: 7/2[633]	1.106	1.169	1.283	1.359	-	-	-	-	-	-	
¹⁷⁹ Hf M: 3/2 ⁻	1.250	1.313	1.405	-	-	-	-	-	-	-	a
¹⁷⁹ Ta A: 7/2[404]	0.0	0.134	0.295	0.481	0.692	0.925	1.177	1.447	1.730	2.026	33/2
¹⁷⁹ Ta B: 9/2[514]	0.031	0.181	0.356	0.556	0.778	1.020	1.282	1.558	1.848	2.145	37/2
¹⁷⁹ Ta D: 5/2[402]	0.239	0.344	0.477	0.637	0.821	1.029	1.256	1.503	1.766	2.044	31/2
¹⁷⁹ Ta E: 9/2 ⁻	0.628	-	0.781	-	1.044	-	1.414	-	1.881	-	x, 45/2 a, b
¹⁷⁹ Ta F: 1/2[411]	0.520	0.527	0.673	0.696	0.938	0.988	-	1.389	-	1.881	

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=179 (continuation of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷⁹ Ta G: 25/2 ⁺	1.317	1.591	1.885	2.198	2.531	2.882	3.251	3.638	4.041	-	
	1.317	1.591	1.885	2.199	2.531	2.881	3.250	3.637	4.043	4.466	
¹⁷⁹ Ta H: 23/2 ⁻	1.328	1.602	1.900	2.219	2.561	2.921	-	-	-	-	
	1.328	1.603	1.900	2.219	2.560	2.922	3.306	3.712	4.140	4.589	a
¹⁷⁹ Ta J: 21/2 ⁻	1.253	1.543	1.849	2.162	2.514	2.864	3.227	-	-	-	
	1.253	1.542	1.848	2.170	2.508	2.862	3.230	3.612	4.008	4.418	
¹⁷⁹ Ta K: 37/2 ⁺	2.639	3.050	3.481	3.932	4.402	4.891	5.391	-	-	-	
	2.638	3.051	3.482	3.932	4.401	4.888	5.394	5.917	6.458	7.016	
¹⁷⁹ Ta L: 33/2 ⁻	2.793	2.929	3.163	3.444	3.758	4.101	4.472	4.865	-	-	
	2.704	2.955	3.222	3.502	3.797	4.107	4.430	4.769	5.121	5.488	a
¹⁷⁹ Ta M: 19/2 ⁺	1.629	1.833	2.059	2.305	-	-	-	-	-	-	
	1.628	1.834	2.059	2.304	2.569	2.853	3.156	3.480	3.822	4.185	a
¹⁷⁹ W Z: 7/2[514]	0.0	0.120	0.265	0.433	0.623	0.834	1.065	1.313	1.576	1.854	47/2
	-0.002	0.121	0.267	0.435	0.624	0.832	1.058	1.301	1.560	1.834	
¹⁷⁹ W Y: 23/2 ⁻	1.832	2.038	2.261	2.505	2.739	3.032	3.326	3.638	3.964	4.305	53/2
	1.827	2.035	2.261	2.502	2.761	3.036	3.328	3.636	3.961	4.303	a, b
¹⁷⁹ W X: 9/2[624]	0.309	0.373	0.469	0.606	0.748	0.961	1.123	1.425	1.583	1.988	53/2
	0.277	0.380	0.501	0.641	0.799	0.976	1.172	1.385	1.617	1.868	
¹⁷⁹ W W: 21/2 ⁺	1.632	1.873	2.138	2.424	2.731	3.055	3.391	-	-	-	
	1.631	1.875	2.140	2.424	2.728	3.052	3.395	3.757	4.137	4.536	
¹⁷⁹ W V: 1/2[521]	0.222	0.305	0.318	0.509	0.533	0.823	0.857	1.225	1.273	1.698	45/2
	0.186	0.270	0.345	0.505	0.616	0.825	0.962	1.210	1.367	1.646	
¹⁷⁹ W U: 7/2[633]	0.477	0.654	0.809	0.916	1.127	1.216	1.532	-	-	-	
	0.482	0.640	0.794	0.951	1.112	1.279	1.451	1.629	1.811	1.999	
¹⁷⁹ W T: 23/2 ⁺	2.012	2.292	2.586	2.894	3.211	3.535	-	-	-	-	
	2.011	2.293	2.587	2.892	3.209	3.537	3.875	4.224	4.583	4.952	
¹⁷⁹ W S: 23/2 ⁻	2.089	2.300	2.547	2.822	3.121	3.439	3.779	-	-	-	
	2.073	2.308	2.561	2.833	3.123	3.433	3.761	4.108	4.473	4.858	a
¹⁷⁹ W R: 31/2 ⁺	3.225	3.349	3.570	3.827	4.117	4.436	4.779	5.147	5.537	5.948	
	3.117	3.360	3.619	3.892	4.180	4.483	4.801	5.133	5.480	5.842	a
¹⁷⁹ W Q: 35/2 ⁻	3.348	3.712	4.091	4.478	4.865	-	-	-	-	-	
	3.347	3.715	4.090	4.475	4.867	5.268	5.677	6.095	6.520	6.954	
¹⁷⁹ W P: 37/2 ⁺	3.583	3.907	4.244	4.597	4.968	5.357	5.764	-	-	-	
	3.584	3.905	4.244	4.598	4.970	5.357	5.762	6.182	6.620	7.073	a
¹⁷⁹ W O: 35/2 ⁻	3.536	3.853	4.186	-	-	-	-	-	-	-	
	3.535	3.854	4.185	4.527	4.880	5.244	5.619	6.004	6.399	6.803	
¹⁷⁹ W N: 37/2 ⁻	3.597	3.969	4.355	4.748	5.141	-	-	-	-	-	
	3.596	3.972	4.354	4.745	5.143	5.549	5.963	6.384	6.813	7.249	
¹⁷⁹ W M: 39/2 ⁺	3.778	4.120	4.477	4.850	5.240	5.647	6.070	-	-	-	
	3.778	4.119	4.477	4.851	5.241	5.647	6.069	6.507	6.961	7.431	
¹⁷⁹ W H: 3/2 ⁺	0.720	0.774	1.680	-	-	-	-	-	-	-	
	0.637	0.935	1.352	1.889	2.544	3.319	4.214	5.227	6.360	7.612	a
¹⁷⁹ W L: 43/2 ⁺	4.610	4.801	5.120	5.490	5.896	6.331	6.793	-	-	-	
	4.515	4.844	5.187	5.545	5.917	6.304	6.706	7.122	7.553	7.998	a
¹⁷⁹ W K: 45/2 ⁻	4.922	5.178	5.498	5.852	6.235	6.624	-	-	-	-	
	4.885	5.200	5.528	5.870	6.225	6.593	6.975	7.370	7.779	8.201	a
¹⁷⁹ W I: 1/2[510]	0.635	0.689	0.787	0.914	1.090	1.291	1.539	-	-	-	
	0.634	0.689	0.787	0.915	1.090	1.289	1.540	1.810	2.134	2.472	
¹⁷⁹ Re Z: 5/2[402]	0.000	0.124	0.280	0.466	0.677	0.914	1.166	1.437	1.714	1.986	35/2
	-0.004	0.128	0.287	0.468	0.669	0.889	1.124	1.375	1.640	1.918	
¹⁷⁹ Re X: 19/2 ⁺	1.315	1.637	-	2.052	-	2.553	-	3.130	-	3.776	41/2
	1.345	1.571	1.808	2.057	2.318	2.589	2.871	3.163	3.465	3.775	b

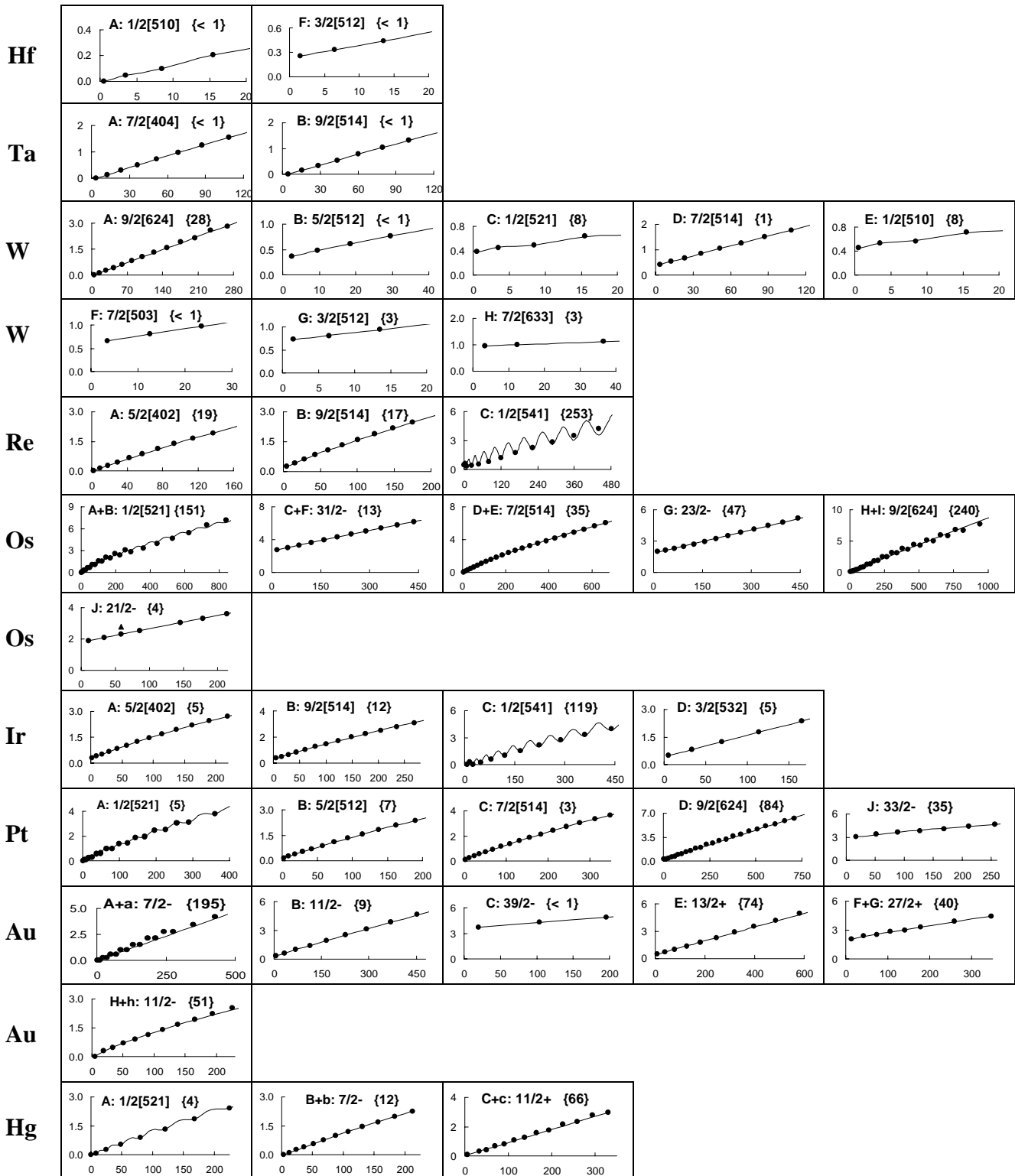
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=179 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁷⁹ Re W: 17/2 ⁻	1.491 1.487	1.858 1.869	2.299 2.291	(2.821) 2.753	(3.427) 3.255	(4.107) 3.797	- 4.380	- 5.002	- 5.665	- 6.368	a
¹⁷⁹ Re T: 1/2[541]	0.118 -0.079	- 0.195	0.065 -0.052	- 0.479	0.116 0.108	- 0.813	0.284 0.354	- 1.192	0.570 0.661	- 1.608	45/2
¹⁷⁹ Re S: 15/2 ⁻	0.928 0.927	- 1.119	1.330 1.331	- 1.564	1.820 1.818	- 2.091	2.382 2.383	- 2.694	- 3.024	- 3.371	
¹⁷⁹ Re R: 9/2[514]	0.0 -0.005	0.165 0.170	0.359 0.366	0.577 0.579	0.818 0.809	1.076 1.055	1.353 1.316	1.636 1.590	1.932 1.878	2.226 2.177	x, 39/2
¹⁷⁹ Re P: 23/2 ⁺	1.684 1.625	1.814 1.826	2.009 2.043	2.238 2.275	2.493 2.524	2.770 2.789	3.066 3.070	3.379 3.367	3.705 3.680	4.043 4.009	y, 45/2 a
¹⁷⁹ Os Z+Y: 1/2[521]	0.0 -0.006	0.086 0.086	0.100 0.101	0.296 0.299	0.320 0.323	0.607 0.607	0.641 0.639	0.997 0.993	1.042 1.030	1.449 1.443	35/2
¹⁷⁹ Os X: 5/2[523]	0.196 0.195	- 0.306	0.437 0.444	- 0.606	0.788 0.790	- 0.995	1.229 1.218	- 1.459	1.739 1.716	- 1.988	37/2
¹⁷⁹ Os W+V: 5/2[512]	0.115 0.111	0.211 0.221	0.337 0.353	0.487 0.504	0.663 0.674	0.860 0.859	1.078 1.058	1.316 1.271	1.567 1.496	1.834 1.733	59/2
¹⁷⁹ Os U: 25/2 ⁻	2.145 2.063	- 2.258	2.472 2.469	- 2.693	2.873 2.933	- 3.186	3.380 3.455	- 3.737	3.965 4.035	- 4.346	73/2 a
¹⁷⁹ Os T+S: 7/2[514]	0.145 0.145	0.273 0.275	0.424 0.424	0.594 0.592	0.781 0.777	0.981 0.977	1.194 1.190	1.418 1.417	1.655 1.656	1.900 1.907	63/2
¹⁷⁹ Os P: 41/2 ⁺	4.022 4.017	- 4.369	4.721 4.732	- 5.107	5.492 5.493	- 5.890	6.307 6.298	- 6.717	7.158 7.146	- 7.585	61/2
¹⁷⁹ Os R+Q: 9/2[624]	0.243 0.194	0.287 0.291	0.345 0.405	0.500 0.537	0.590 0.686	0.856 0.853	0.955 1.037	1.318 1.238	1.428 1.456	1.852 1.691	69/2
¹⁷⁹ Os O: 25/2	1.825 1.824	- 2.076	2.332 2.338	- 2.611	2.903 2.893	- 3.186	3.483 3.488	- 3.799	- 4.119	- 4.448	
¹⁷⁹ Ir Z+S: 9/2 ⁻	0.0 0.006	0.432 0.133	0.202 0.283	0.759 0.454	0.553 0.648	1.191 0.863	1.018 1.100	1.697 1.357	1.568 1.636	2.290 1.934	x, 45/2 b
¹⁷⁹ Ir Y: 33/2 ⁻	2.925 2.894	- 3.153	3.400 3.427	- 3.716	3.986 4.019	- 4.338	4.655 4.671	- 5.019	5.397 5.382	- 5.760	x, 53/2 a
¹⁷⁹ Ir X: 17/2 ⁺	1.115 1.104	- 1.249	1.397 1.408	- 1.583	1.758 1.773	- 1.979	2.192 2.199	- 2.434	2.690 2.685	- 2.951	x, 57/2
¹⁷⁹ Ir W+V: 5/2[402]	0.186 0.186	0.288 0.288	0.414 0.415	0.563 0.563	0.731 0.732	0.919 0.920	1.134 1.124	1.344 1.344	1.578 1.579	1.825 1.828	x, 27/2
¹⁷⁹ Ir U+T: 9/2[514]	0.140 0.137	0.264 0.274	0.427 0.432	0.607 0.609	0.807 0.804	1.022 1.016	1.253 1.243	1.497 1.486	1.756 1.743	2.027 2.013	x, 51/2
¹⁷⁹ Ir R: 15/2 ⁻	0.903 0.904	- 1.086	1.284 1.284	- 1.498	1.733 1.726	- 1.968	2.214 2.223	- 2.491	2.765 2.770	- 3.062	x, 39/2 b
¹⁷⁹ Pt A: 1/2[521]	0.0 -0.001	0.071 0.071	0.087 0.088	0.241 0.248	0.277 0.278	- 0.514	0.557 0.555	- 0.858	0.910 0.908	- 1.268	53/2
¹⁷⁹ Pt B+C: 7/2 ⁻	0.145 0.145	0.255 0.257	0.391 0.391	0.548 0.548	0.727 0.725	0.927 0.922	1.140 1.138	1.375 1.371	1.619 1.622	1.888 1.889	41/2 b
¹⁷⁹ Pt D+E: 7/2[633]	0.299 0.259	0.356 0.356	0.417 0.470	0.582 0.603	0.681 0.752	0.926 0.920	1.050 1.105	1.358 1.308	1.503 1.529	1.865 1.767	61/2

A=181

Firestone R.B. //NDS, 1991, v.62, p.101



ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=181

Firestone R.B. //NDS, 1991, v.62, p.101

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{181}Hf	0.0	0.046	0.099	0.204	-	-	-	-	-	-	
A: 1/2[510]	0.0	0.046	0.099	0.204	0.298	0.461	0.593	0.809	0.977	1.244	
^{181}Hf	0.252	0.329	0.440	-	-	-	-	-	-	-	
F: 3/2[512]	0.252	0.330	0.440	0.581	0.754	0.958	1.194	1.460	1.759	2.089	a
^{181}Ta	0.0	0.136	0.302	0.495	0.717	0.965	1.239	1.539	-	-	
A: 7/2[404]	0.0	0.136	0.302	0.495	0.717	0.965	1.239	1.539	1.863	2.211	
^{181}Ta	0.006	0.159	0.338	0.543	0.773	1.028	1.307	-	-	-	
B: 9/2[514]	0.006	0.159	0.338	0.543	0.773	1.028	1.307	1.610	1.935	2.283	
^{181}W	0.0	0.113	0.251	0.414	0.599	0.814	1.039	1.310	1.560	1.899	33/2
A: 9/2[624]	-0.003	0.116	0.257	0.420	0.604	0.810	1.038	1.287	1.558	1.851	a
^{181}W	0.366	0.475	0.609	0.762	-	-	-	-	-	-	
B: 5/2[512]	0.366	0.476	0.609	0.762	0.933	1.120	1.322	1.538	1.766	2.006	
^{181}W	0.385	0.450	0.488	0.643	-	-	-	-	-	-	
C: 1/2[521]	0.377	0.456	0.494	0.631	0.684	0.859	0.922	1.125	1.197	1.423	
^{181}W	0.409	0.529	0.675	0.848	1.046	1.268	1.513	1.777	-	-	
D: 7/2[514]	0.409	0.529	0.676	0.848	1.045	1.266	1.512	1.780	2.071	2.383	
^{181}W	0.458	0.529	0.561	0.715	-	-	-	-	-	-	
E: 1/2[510]	0.446	0.526	0.570	0.708	0.769	0.945	1.018	1.222	1.305	1.532	
^{181}W	0.662	0.805	0.975	-	-	-	-	-	-	-	
F: 7/2[503]	0.662	0.805	0.975	1.170	1.386	1.624	1.882	2.157	2.450	2.760	
^{181}W	0.726	0.808	0.937	-	-	-	-	-	-	-	
G: 3/2[512]	0.724	0.812	0.935	1.093	1.285	1.513	1.776	2.075	2.408	2.776	a
^{181}W	0.953	0.993	-	1.124	-	-	-	-	-	-	
H: 7/2[633]	0.951	0.998	1.055	1.122	1.201	1.289	1.388	1.497	1.617	1.747	a
^{181}Re	0.000	0.118	0.267	0.444	0.646	0.873	1.117	1.377	1.642	1.914	25/2
A: 5/2[402]	-0.001	0.119	0.268	0.443	0.642	0.862	1.101	1.359	1.634	1.926	
^{181}Re	0.263	0.427	0.619	0.834	1.072	1.328	1.602	1.883	2.178	2.469	29/2
B: 9/2[514]	0.261	0.431	0.624	0.837	1.069	1.319	1.586	1.868	2.165	2.476	
^{181}Re	0.433	0.600	0.357	-	0.391	-	0.547	-	0.823	-	41/2
C: 1/2[541]	0.343	0.716	0.300	1.053	0.409	1.434	0.619	1.854	0.904	2.311	
^{181}Os	0.0	0.094	0.103	0.321	0.334	0.664	0.678	1.095	1.099	1.584	57/2
A+B: 1/2[521]	-0.034	0.094	0.100	0.342	0.351	0.668	0.679	1.054	1.065	1.488	
^{181}Os	2.770	3.039	3.335	3.655	3.973	4.336	4.685	5.062	5.427	5.809	53/2
C+F: 31/2 ⁻	2.758	3.046	3.347	3.661	3.988	4.327	4.678	5.041	5.415	5.801	
^{181}Os	0.049	-	0.321	0.491	0.683	0.891	1.117	1.355	1.607	1.868	51/2
D+E: 7/2[514]	0.049	0.179	0.329	0.499	0.686	0.889	1.107	1.338	1.582	1.839	
^{181}Os	2.017	2.138	2.301	2.488	2.713	2.955	3.236	3.522	3.844	4.163	47/2
G: 23/2 ⁻	1.941	2.125	2.325	2.539	2.768	3.012	3.271	3.544	3.832	4.135	a
^{181}Os	0.156	0.218	0.292	0.441	0.549	0.806	0.914	1.288	1.377	1.865	61/2
H+I: 9/2[624]	0.131	0.228	0.344	0.476	0.627	0.794	0.979	1.182	1.402	1.639	
^{181}Os	1.891	2.095	2.309	2.538	-	3.056	3.321	3.621	-	-	
J: 21/2 ⁻	1.892	2.093	2.309	2.541	2.788	3.050	3.327	3.619	3.924	4.243	c
^{181}Ir	0.289	0.393	0.522	0.673	0.845	1.035	1.240	1.459	1.687	1.928	29/2
A: 5/2[402]	0.288	0.394	0.524	0.675	0.845	1.032	1.235	1.452	1.683	1.926	
^{181}Ir	0.366	0.484	0.655	0.838	1.041	1.257	1.487	1.727	1.979	2.240	33/2
B: 9/2[514]	0.359	0.499	0.659	0.838	1.034	1.246	1.474	1.716	1.971	2.240	
^{181}Ir	-	-	0.0	0.310	0.025	-	0.213	-	0.548	-	41/2
C: 1/2[541]	-0.140	0.049	-0.117	0.306	0.023	0.647	0.264	1.060	0.592	1.535	
^{181}Ir	0.499	-	0.815	-	1.244	-	1.762	-	2.360	-	
D: 11/2 ⁻	0.497	0.648	0.823	1.021	1.242	1.487	1.755	2.046	2.360	2.698	a, b

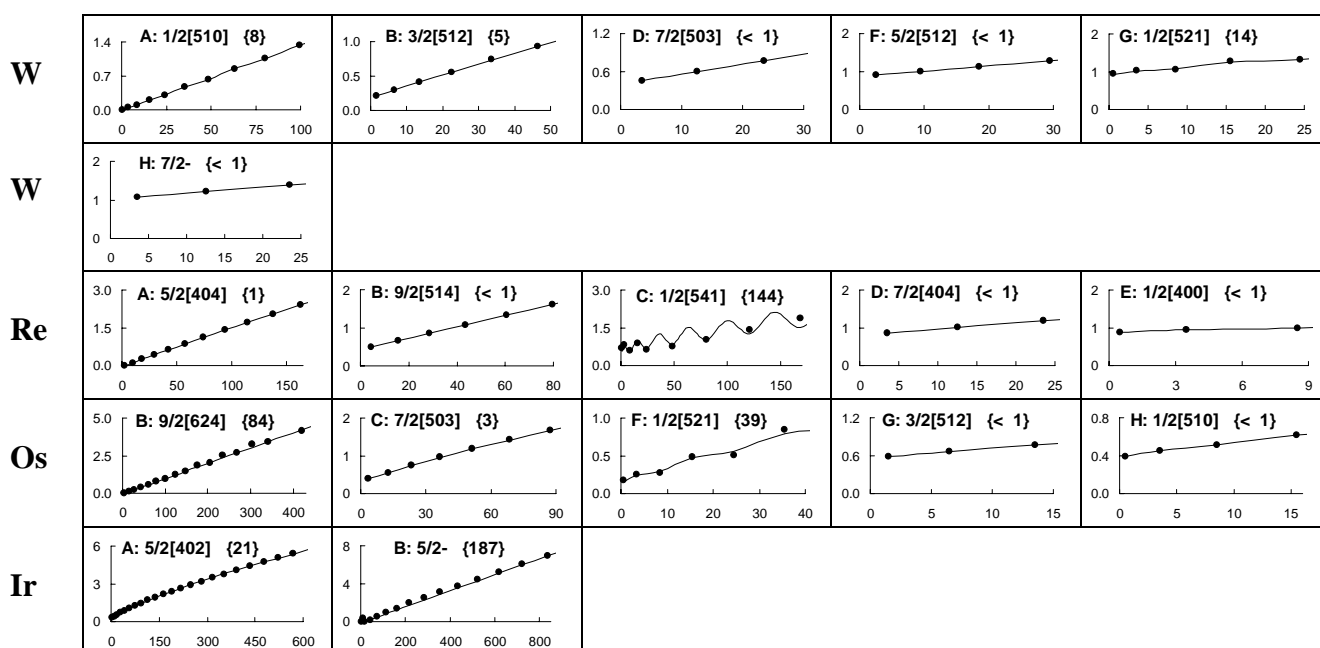
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=181 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
¹⁸¹ Pt	0.0	0.079	0.094	0.278	0.301	0.572	0.604	0.949	0.990	1.397	37/2
A: 1/2[521]	-0.003	0.079	0.094	0.278	0.302	0.573	0.605	0.949	0.989	1.396	
¹⁸¹ Pt	0.167	0.256	0.380	0.525	0.695	0.883	1.092	1.314	1.555	1.806	27/2
B: 5/2[512]	0.165	0.261	0.382	0.526	0.692	0.879	1.085	1.309	1.550	1.807	
¹⁸¹ Pt	0.117	0.235	0.380	0.543	0.726	0.925	1.141	1.370	1.615	1.870	37/2
C: 7/2[514]	0.116	0.237	0.380	0.543	0.724	0.923	1.138	1.368	1.613	1.870	
¹⁸¹ Pt	0.276	0.320	0.381	0.542	0.643	0.887	1.012	1.322	1.465	1.828	53/2
D: 9/2[624]	0.228	0.324	0.437	0.568	0.716	0.881	1.064	1.264	1.482	1.717	a
¹⁸¹ Pt	3.024	3.388	3.595	3.839	4.074	4.421	4.661	-	-	-	
J: 33/2 ⁻	3.044	3.331	3.602	3.866	4.126	4.385	4.644	4.902	5.162	5.424	
¹⁸¹ Au	0.029	0.0	0.242	0.228	0.574	0.571	1.006	1.003	1.518	1.513	x, 41/2
A+a: 7/2 ⁻	0.026	0.111	0.214	0.336	0.476	0.636	0.814	1.011	1.227	1.462	a
¹⁸¹ Au	0.333	-	0.620	-	0.987	-	1.431	-	1.942	-	x, 43/2
B: 11/2 ⁻	0.333	0.467	0.622	0.795	0.987	1.198	1.427	1.673	1.937	2.217	
¹⁸¹ Au	3.706	-	4.260	-	4.865	-	-	-	-	-	x
C: 39/2 ⁻	3.706	3.977	4.261	4.556	4.865	5.185	5.517	5.861	6.217	6.585	
¹⁸¹ Au	0.529	-	0.685	-	0.958	-	1.325	-	1.772	-	x, 53/2
E: 13/2 ⁺	0.483	0.596	0.723	0.866	1.024	1.196	1.384	1.587	1.805	2.038	a
¹⁸¹ Au	2.029	2.388	2.535	2.807	2.967	3.298	-	3.861	-	4.440	x, 53/2
F+G: 27/2 ⁺	2.069	2.301	2.540	2.787	3.042	3.304	3.573	3.850	4.133	4.423	
¹⁸¹ Au	0.0	0.305	0.458	0.687	0.902	1.137	1.387	1.654	1.934	2.241	y, 31/2
H+h: 11/2 ⁻	0.036	0.267	0.489	0.712	0.939	1.172	1.410	1.654	1.904	2.159	
¹⁸¹ Hg	0.0	-	0.080	-	0.264	-	0.535	-	0.890	-	29/2
A: 1/2[521]	-0.002	0.066	0.081	0.236	0.262	0.500	0.536	0.849	0.894	1.276	
¹⁸¹ Hg	0.0	0.090	0.248	0.400	0.575	0.766	0.979	1.198	1.453	1.691	29/2
B+b: 7/2 ⁻	-0.021	0.095	0.233	0.392	0.569	0.765	0.978	1.206	1.450	1.707	b
¹⁸¹ Hg	0.075	-	0.315	0.416	0.656	0.794	1.083	1.238	1.587	1.749	37/2
C+c: 11/2 ⁺	0.073	0.189	0.323	0.474	0.644	0.831	1.036	1.259	1.499	1.758	a, b

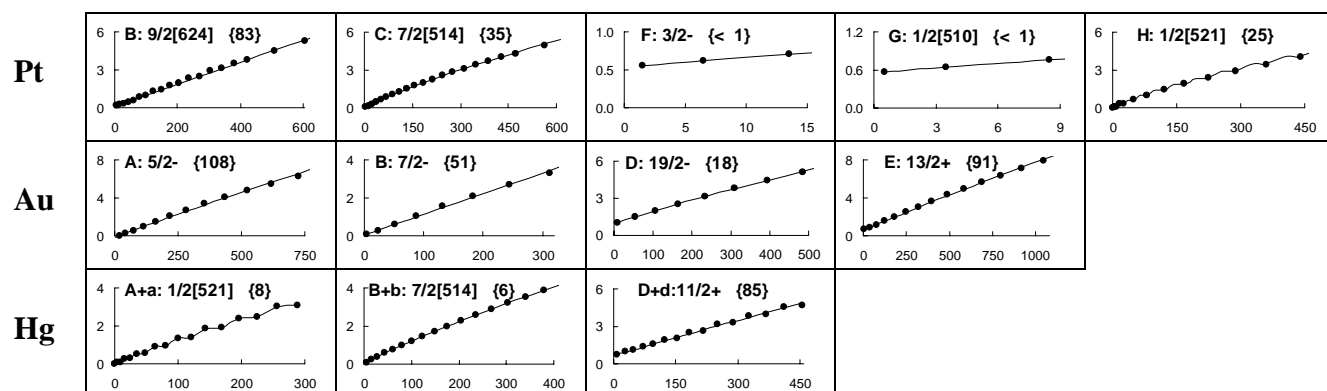
A=183

Firestone R.B. //NDS, 1992, v.65, p.589



A=183 (continuation)

Firestone R.B. //NDS, 1992, v.65, p.589



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{183}W	0.0	0.046	0.099	0.207	0.309	0.475	0.631	0.851	1.063	1.332	
A: 1/2[510]	0.0	0.046	0.101	0.210	0.308	0.479	0.621	0.854	1.040	1.335	a
^{183}W	0.209	0.292	0.412	0.551	0.740	0.926	-	-	-	-	
B: 3/2[512]	0.208	0.293	0.410	0.556	0.731	0.931	1.157	1.405	1.675	1.965	
^{183}W	0.453	0.595	0.772	-	-	-	-	-	-	-	
D: 7/2[503]	0.453	0.596	0.771	0.978	1.217	1.488	1.791	2.125	2.491	2.889	a
^{183}W	0.905	1.002	1.128	1.281	-	-	-	-	-	-	
F: 5/2[512]	0.904	1.002	1.128	1.281	1.462	1.670	1.906	2.169	2.458	2.775	
^{183}W	0.935	1.026	1.053	1.265	1.314	-	-	-	-	-	
G: 1/2[521]	0.918	1.016	1.067	1.248	1.323	1.560	1.652	1.930	2.035	2.348	
^{183}W	1.072	1.219	1.397	-	-	-	-	-	-	-	
H: 7/2 ⁻	1.072	1.219	1.397	1.605	1.842	2.107	2.399	2.718	3.061	3.429	
^{183}Re	0.0	0.115	0.260	0.435	0.639	0.870	1.127	1.409	1.714	2.039	25/2
A: 5/2[404]	0.0	0.115	0.260	0.435	0.639	0.870	1.127	1.409	1.714	2.042	
^{183}Re	0.496	0.664	0.861	1.085	1.335	1.608	-	-	-	-	
B: 9/2[514]	0.496	0.665	0.861	1.085	1.334	1.609	1.907	2.229	2.572	2.937	
^{183}Re	0.701	0.829	0.599	0.892	0.619	-	0.761	-	1.024	-	25/2
C: 1/2[541]	0.570	0.792	0.571	1.000	0.669	1.239	0.827	1.505	1.029	1.795	
^{183}Re	0.851	1.002	1.183	-	-	-	-	-	-	-	
D: 7/2[404]	0.851	1.002	1.183	1.393	1.630	1.894	2.183	2.495	2.830	3.186	
^{183}Re	0.879	0.955	1.000	-	-	-	-	-	-	-	
E: 1/2[400]	0.879	0.955	1.000	1.126	1.187	1.345	1.418	1.600	1.682	1.885	
^{183}Os	0.0	0.096	0.219	0.375	0.541	0.764	0.951	1.256	1.443	1.844	41/2
B: 9/2[624]	-0.009	0.103	0.235	0.388	0.561	0.754	0.968	1.202	1.456	1.731	a
^{183}Os	0.393	0.558	0.749	0.958	1.180	1.421	1.664	-	-	-	
C: 7/2[503]	0.392	0.560	0.749	0.956	1.179	1.417	1.670	1.936	2.214	2.504	
^{183}Os	0.171	0.258	0.273	0.487	0.510	0.849	-	-	1.324	-	
F: 1/2[521]	0.152	0.247	0.300	0.478	0.555	0.788	0.882	1.157	1.265	1.575	
^{183}Os	0.582	0.669	0.764	-	-	-	-	-	-	-	
G: 3/2[512]	0.582	0.669	0.764	0.867	0.978	1.095	1.220	1.350	1.486	1.626	
^{183}Os	0.395	0.453	0.513	0.621	-	-	-	-	-	-	
H: 1/2[510]	0.395	0.453	0.513	0.621	0.708	0.849	0.957	1.122	1.245	1.432	
^{183}Ir	0.308	0.413	0.543	0.696	0.870	1.060	1.263	1.476	1.692	1.917	47/2
A: 5/2[402]	0.305	0.416	0.548	0.700	0.868	1.051	1.247	1.457	1.678	1.910	
^{183}Ir	0.0	0.329	0.016	-	0.185	-	0.494	-	0.919	-	57/2
B: 5/2 ⁻	-0.118	-0.059	0.017	0.110	0.220	0.347	0.491	0.652	0.830	1.025	b

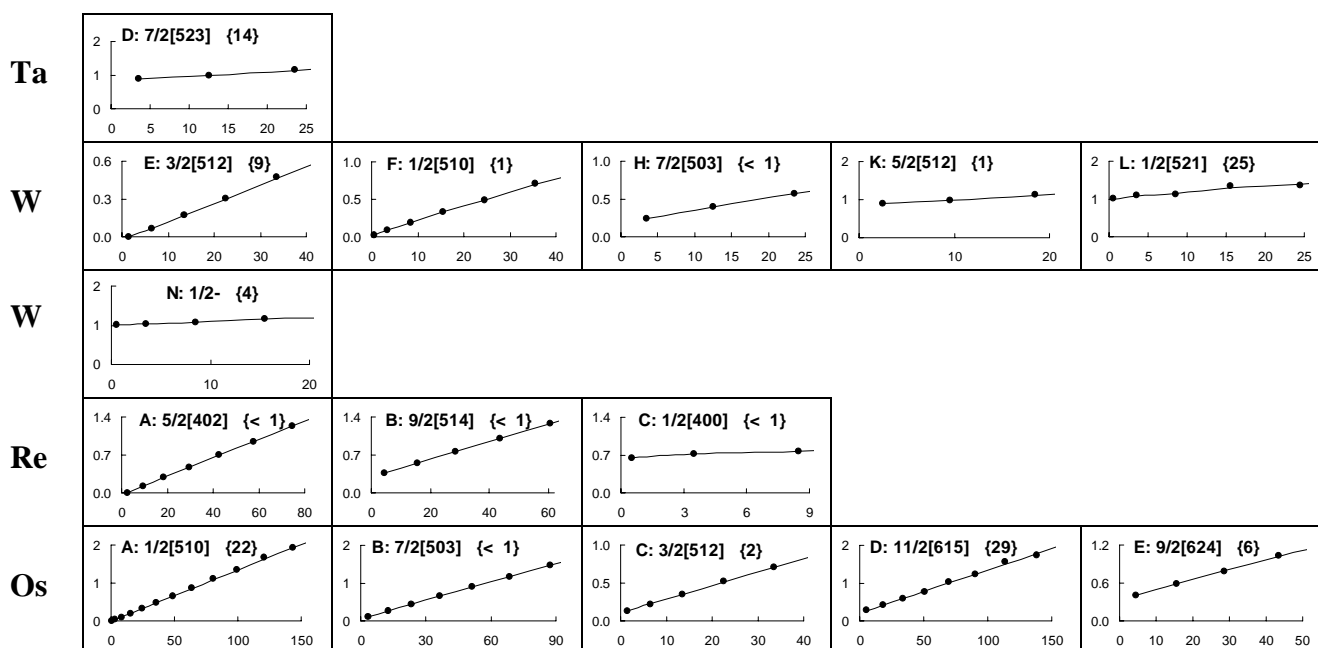
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=183 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁸³ Pt B: 9/2[624]	0.196 0.161	0.243 0.257	0.317 0.370	0.478 0.500	0.590 0.648	0.834 0.812	0.966 0.995	1.280 1.194	1.421 1.411	1.791 1.646	49/2 a
¹⁸³ Pt C: 7/2[514]	0.034 0.034	0.150 0.154	0.289 0.294	0.449 0.452	0.629 0.628	0.825 0.819	1.039 1.025	1.263 1.245	1.502 1.477	1.748 1.722	47/2 c
¹⁸³ Pt F: 3/2 ⁻	0.557 0.556	0.617 0.617	0.702 0.702	- 0.811	- 0.943	- 1.098	- 1.276	- 1.476	- 1.698	- 1.941	- b
¹⁸³ Pt G: 1/2[510]	0.569 0.569	0.650 0.650	0.762 0.762	- 0.926	- 1.099	- 1.321	- 1.539	- 1.808	- 2.062	- 2.367	-
¹⁸³ Pt H: 1/2[521]	0.0 -0.017	0.085 0.084	0.096 0.096	0.299 0.302	0.314 0.320	- 0.602	0.627 0.625	- 0.966	1.012 0.992	- 1.381	41/2
¹⁸³ Au A: 5/2 ⁻	0.0 -0.149	- -0.078	0.012 0.012	- 0.123	0.231 0.253	- 0.403	0.565 0.572	- 0.760	0.989 0.966	- 1.191	53/2
¹⁸³ Au B: 7/2 ⁻	0.069 0.068	- 0.168	0.273 0.290	- 0.434	0.600 0.600	- 0.788	1.023 0.997	- 1.227	1.545 1.479	- 1.752	35/2
¹⁸³ Au D: 19/2 ⁻	1.055 1.052	- 1.266	1.488 1.495	- 1.737	1.986 1.993	- 2.261	2.541 2.541	- 2.833	3.149 3.136	- 3.450	47/2
¹⁸³ Au E: 13/2 ⁺	0.702 0.661	- 0.774	0.865 0.903	- 1.047	1.149 1.205	- 1.377	1.528 1.564	- 1.766	1.981 1.981	- 2.211	65/2 b
¹⁸³ Hg A+a: 1/2[521]	0.0 -0.008	0.067 0.068	0.087 0.086	0.262 0.257	0.286 0.288	0.543 0.542	0.577 0.584	0.906 0.909	0.953 0.960	1.345 1.347	37/2
¹⁸³ Hg B+b: 7/2[514]	0.104 0.107	0.251 0.245	0.406 0.404	0.585 0.582	0.779 0.778	0.993 0.992	1.219 1.221	1.465 1.465	1.720 1.723	1.997 1.996	39/2
¹⁸³ Hg D+d: 11/2 ⁺	0.695 0.769	0.967 0.944	1.099 1.137	1.403 1.349	1.553 1.578	1.916 1.826	2.075 2.093	2.498 2.378	2.658 2.681	3.139 3.003	45/2 a

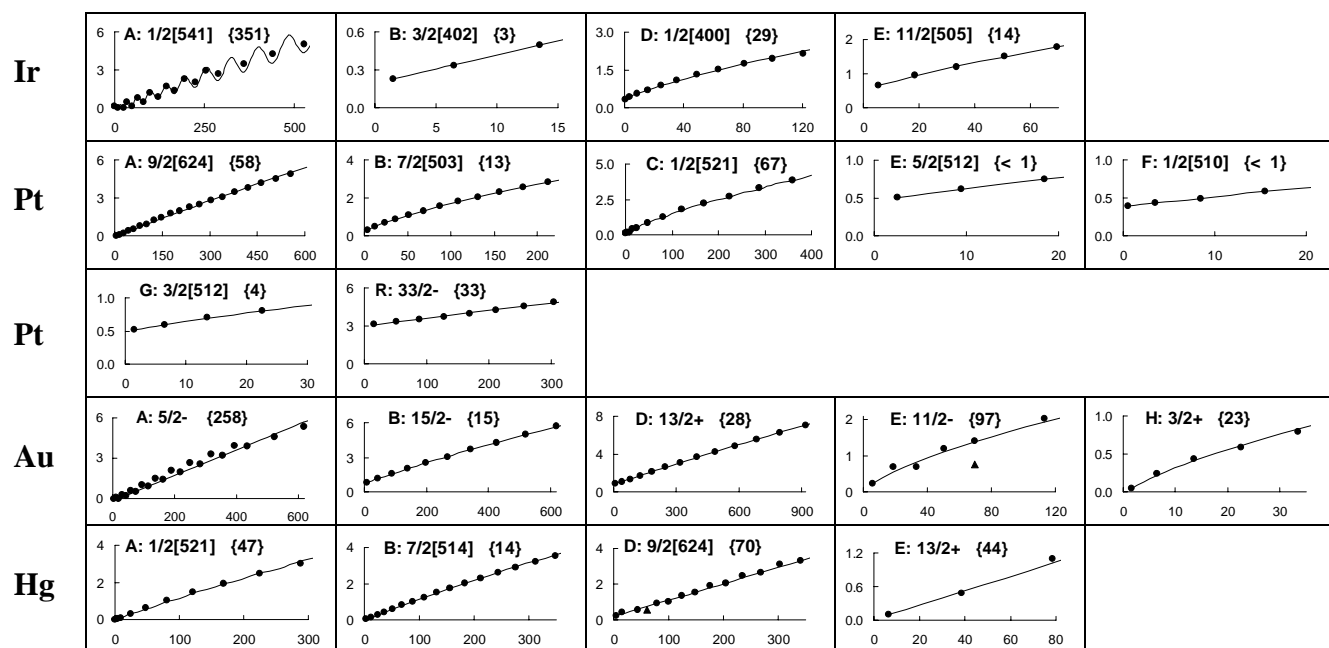
A=185

Browne E. //NDS, 1995, v.74, p.165



A=185 (continuation)

Browne E. //NDS, 1995, v.74, p.165



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁸⁵ Ta	0.890	0.980	1.153	-	-	-	-	-	-	-	
D: 7/2[523]	0.882	0.998	1.141	1.310	1.504	1.725	1.972	2.244	2.542	2.867	a
¹⁸⁵ W	0.0	0.066	0.174	0.302	0.478	-	-	-	-	-	
E: 3/2[512]	-0.003	0.069	0.170	0.300	0.459	0.647	0.863	1.109	1.383	1.686	a
¹⁸⁵ W	0.024	0.093	0.188	0.334	0.492	0.706	-	-	-	-	
F: 1/2[510]	0.024	0.093	0.188	0.337	0.492	0.704	0.907	1.170	1.412	1.717	
¹⁸⁵ W	0.244	0.391	0.570	-	-	-	-	-	-	-	
H: 7/2[503]	0.244	0.391	0.570	0.780	1.020	1.291	1.590	1.917	2.272	2.653	
¹⁸⁵ W	0.889	0.986	1.118	-	-	-	-	-	-	-	
K: 5/2[512]	0.888	0.988	1.117	1.275	1.461	1.676	1.919	2.192	2.492	2.822	a
¹⁸⁵ W	1.007	1.106	1.118	1.335	1.361	-	-	-	-	-	
L: 1/2[521]	0.986	1.078	1.134	1.305	1.386	1.609	1.708	1.970	2.084	2.378	
¹⁸⁵ W	1.013	1.036	1.073	1.154	-	-	-	-	-	-	
N: 1/2-	1.008	1.041	1.075	1.152	1.213	1.333	1.423	1.586	1.703	1.910	
¹⁸⁵ Re	0.0	0.125	0.284	0.476	0.697	0.950	1.230	-	-	-	
A: 5/2[402]	0.0	0.125	0.284	0.476	0.698	0.949	1.229	1.536	1.868	2.225	
¹⁸⁵ Re	0.368	0.547	0.757	1.000	1.277	-	-	-	-	-	
B: 9/2[514]	0.368	0.547	0.757	1.001	1.276	1.584	1.925	2.298	2.703	3.141	a
¹⁸⁵ Re	0.646	0.717	0.769	-	-	-	-	-	-	-	
C: 1/2[400]	0.646	0.717	0.769	0.888	0.958	1.107	1.191	1.363	1.458	1.649	
¹⁸⁵ Os	0.0	0.037	0.097	0.198	0.318	0.477	0.660	0.865	1.117	1.354	25/2
A: 1/2[510]	-0.002	0.038	0.106	0.200	0.323	0.470	0.648	0.849	1.081	1.335	a
¹⁸⁵ Os	0.102	0.261	0.449	0.666	0.908	1.174	1.462	-	-	-	
B: 7/2[503]	0.102	0.261	0.449	0.665	0.907	1.174	1.463	1.774	2.104	2.454	
¹⁸⁵ Os	0.128	0.222	0.352	0.519	0.707	-	-	-	-	-	
C: 3/2[512]	0.128	0.223	0.353	0.516	0.710	0.932	1.182	1.456	1.754	2.074	
¹⁸⁵ Os	0.276	0.414	0.591	0.777	1.025	1.223	1.566	1.745	-	-	
D: 11/2[615]	0.273	0.421	0.592	0.785	1.001	1.240	1.501	1.786	2.093	2.422	a
¹⁸⁵ Os	0.403	0.591	0.782	1.026	-	-	-	-	-	-	
E: 9/2[624]	0.403	0.586	0.792	1.020	1.269	1.536	1.821	2.122	2.438	2.770	

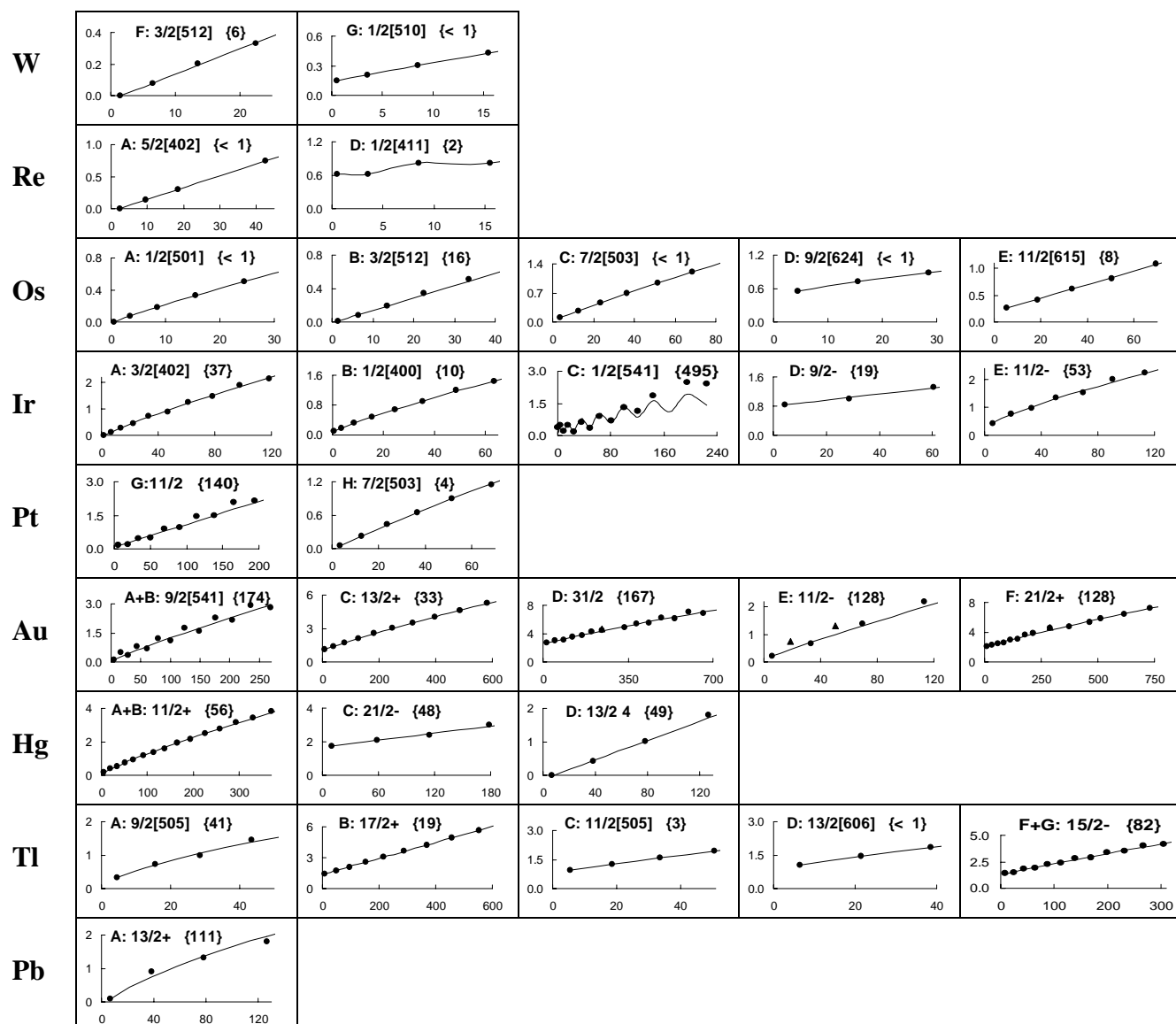
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=185 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁸⁵ Ir	0.135	-	0.0	-	0.006	0.466	0.159	0.756	0.449	1.164	45/2
A: 1/2[541]	-0.073	0.080	-0.073	0.282	0.006	0.565	0.167	0.929	0.408	1.373	a
¹⁸⁵ Ir	0.230	0.335	0.497	-	-	-	-	-	-	-	
B: 3/2[402]	0.229	0.339	0.493	0.692	0.935	1.222	1.553	1.928	2.347	2.811	a
¹⁸⁵ Ir	0.333	0.419	0.556	0.697	0.881	1.087	1.305	1.531	1.746	1.949	21/2
D: 1/2[400]	0.331	0.421	0.559	0.702	0.889	1.066	1.287	1.491	1.739	1.964	
¹⁸⁵ Ir	0.647	0.945	1.192	1.515	1.779	-	-	-	-	-	
E: 11/2[505]	0.648	0.935	1.214	1.496	1.783	2.077	2.379	2.689	3.006	3.331	
¹⁸⁵ Pt	0.0	0.095	0.212	0.373	0.531	0.753	0.938	1.215	1.417	1.733	47/2
A: 9/2[624]	-0.007	0.101	0.228	0.374	0.539	0.722	0.923	1.141	1.377	1.629	
¹⁸⁵ Pt	0.311	0.487	0.682	0.879	1.090	1.314	1.552	1.805	2.049	2.314	29/2
B: 7/2[503]	0.310	0.491	0.680	0.881	1.092	1.314	1.546	1.788	2.038	2.298	
¹⁸⁵ Pt	0.103	0.181	0.201	0.424	0.452	-	0.817	-	1.273	-	37/2
C: 1/2[521]	0.087	0.178	0.238	0.410	0.498	0.724	0.832	1.100	1.224	1.525	
¹⁸⁵ Pt	0.510	0.616	0.746	-	-	-	-	-	-	-	
E: 5/2[512]	0.510	0.616	0.746	0.900	1.074	1.267	1.477	1.704	1.946	2.202	
¹⁸⁵ Pt	0.388	0.435	0.488	0.591	-	-	-	-	-	-	
F: 1/2[510]	0.388	0.435	0.488	0.591	0.678	0.824	0.938	1.119	1.255	1.466	
¹⁸⁵ Pt	0.521	0.593	0.700	0.801	-	-	-	-	-	-	
G: 3/2[512]	0.520	0.598	0.693	0.804	0.927	1.062	1.207	1.361	1.523	1.694	
¹⁸⁵ Pt	3.131	3.294	3.511	3.725	3.991	4.263	4.565	4.902	-	-	
R: 33/2 ⁻	3.088	3.302	3.528	3.766	4.017	4.280	4.555	4.842	5.141	5.453	a
¹⁸⁵ Au	0.0	0.108	0.009	0.301	0.221	0.617	0.544	1.029	0.954	1.509	49/2
A: 5/2 ⁻	-0.141	-0.075	0.011	0.115	0.238	0.380	0.541	0.721	0.919	1.137	a
¹⁸⁵ Au	0.776	-	1.136	-	1.565	-	1.995	-	2.503	-	51/2
B: 15/2 ⁻	0.779	0.949	1.133	1.332	1.544	1.770	2.007	2.257	2.517	2.789	b
¹⁸⁵ Au	0.860	-	1.041	-	1.328	-	1.706	-	2.146	-	61/2
D: 13/2 ⁺	0.833	0.945	1.071	1.211	1.365	1.534	1.715	1.910	2.119	2.340	
¹⁸⁵ Au	0.220	0.681	0.682	1.209	1.397	-	2.025	-	-	-	
E: 11/2 ⁻	0.224	0.545	0.832	1.110	1.388	1.667	1.950	2.237	2.529	2.826	c
¹⁸⁵ Au	0.041	0.234	0.440	0.583	0.790	-	-	-	-	-	
H: 3/2 ⁺	0.041	0.222	0.410	0.609	0.821	1.044	1.278	1.521	1.774	2.035	
¹⁸⁵ Hg	0.0	0.026	0.096	-	0.329	-	0.634	-	1.015	-	33/2
A: 1/2[521]	-0.001	0.026	0.106	0.168	0.308	0.403	0.599	0.724	0.973	1.125	
¹⁸⁵ Hg	0.034	0.141	0.281	0.436	0.613	0.807	1.020	1.248	1.495	1.753	37/2
B: 7/2[514]	0.034	0.145	0.279	0.434	0.609	0.802	1.014	1.242	1.486	1.745	
¹⁸⁵ Hg	0.213	0.413	-	0.550	-	0.907	1.031	1.360	1.514	1.886	37/2
D: 9/2[624]	0.227	0.328	0.448	0.586	0.742	0.917	1.110	1.322	1.552	1.801	a, c
¹⁸⁵ Hg	0.099	-	0.480	-	1.093	-	-	-	-	-	
E: 13/2 ⁺	0.098	0.291	0.509	0.753	1.023	1.318	1.639	1.985	2.357	2.755	a

A=187

Firestone R.B. //NDS, 1991, v.62, p.159



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{187}W F: 3/2[512]	0.0	0.077	0.201	0.329	-	-	-	-	-	-	
^{187}W G: 1/2[510]	0.146	0.205	0.303	0.432	0.512	0.719	0.959	1.229	1.531	1.864	
^{187}Re A: 5/2[402]	0.0	0.134	0.303	-	0.743	-	-	-	-	-	
^{187}Re D: 1/2[411]	0.626	0.618	0.817	0.817	-	-	-	-	-	-	
^{187}Re D: 1/2[411]	0.623	0.621	0.819	0.815	1.171	1.165	1.679	1.671	2.343	2.333	a
^{187}Os A: 1/2[501]	0.0	0.074	0.187	0.333	0.508	-	-	-	-	-	
^{187}Os A: 1/2[501]	0.0	0.074	0.188	0.334	0.507	0.705	0.921	1.158	1.409	1.678	
^{187}Os B: 3/2[512]	0.010	0.075	0.191	0.342	0.512	-	-	-	-	-	
^{187}Os B: 3/2[512]	0.010	0.084	0.188	0.321	0.484	0.677	0.900	1.152	1.434	1.745	a
^{187}Os C: 7/2[503]	0.101	0.263	0.460	0.684	0.935	1.211	-	-	-	-	
^{187}Os C: 7/2[503]	0.101	0.264	0.459	0.683	0.935	1.212	1.514	1.839	2.185	2.552	

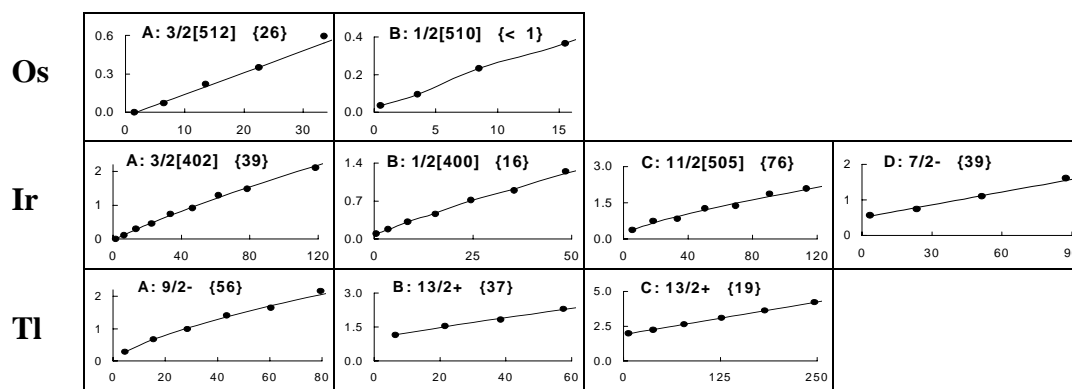
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=187 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁸⁷ Os	0.557	0.727	0.886	-	-	-	-	-	-	-	
D: 9/2[624]	0.557	0.727	0.886	1.044	1.206	1.370	1.539	1.711	1.888	2.069	
¹⁸⁷ Os	0.257	0.419	0.618	0.817	1.084	-	-	-	-	-	
E: 11/2[615]	0.256	0.422	0.613	0.830	1.072	1.340	1.633	1.951	2.295	2.665	a
¹⁸⁷ Ir	0.0	0.110	0.285	0.443	0.717	0.903	1.264	1.472	1.901	2.131	
A: 3/2[402]	-0.002	0.114	0.269	0.460	0.683	0.935	1.213	1.516	1.841	2.186	
¹⁸⁷ Ir	0.106	0.190	0.312	0.471	0.688	0.898	1.193	1.443	-	-	
B: 1/2[400]	0.107	0.186	0.314	0.478	0.682	0.910	1.171	1.450	1.758	2.078	
¹⁸⁷ Ir	0.389	0.486	0.201	0.486	0.186	0.620	0.350	0.901	0.675	1.317	33/2
C: 1/2[541]	0.118	0.352	0.137	0.556	0.248	0.788	0.414	1.045	0.619	1.324	
¹⁸⁷ Ir	0.843	-	1.009	-	1.322	-	-	-	-	-	
D: 9/2 ⁻	0.833	0.925	1.035	1.161	1.304	1.464	1.641	1.835	2.045	2.273	a
¹⁸⁷ Ir	0.434	0.764	0.964	1.353	1.523	1.993	2.234	-	-	-	
E: 11/2 ⁻	0.437	0.728	1.015	1.306	1.605	1.912	2.228	2.552	2.885	3.227	
¹⁸⁷ Pt	0.174	0.203	0.465	0.506	0.904	0.944	1.454	1.498	2.093	2.145	
G: 11/2 ⁺	0.132	0.265	0.418	0.591	0.785	0.999	1.234	1.489	1.765	2.060	a
¹⁸⁷ Pt	0.057	0.226	0.431	0.652	0.895	1.153	-	-	-	-	
H: 7/2[503]	0.057	0.228	0.426	0.649	0.894	1.160	1.444	1.747	2.065	2.400	
¹⁸⁷ Au	0.120	0.497	0.354	0.816	0.689	1.233	1.102	1.740	1.594	2.293	45/2
A+B: 9/2[541]	0.127	0.269	0.430	0.611	0.809	1.024	1.254	1.498	1.757	2.028	
¹⁸⁷ Au	1.122	-	1.381	-	1.697	-	2.098	-	2.569	-	49/2
C: 13/2 ⁺	1.115	1.245	1.389	1.548	1.719	1.903	2.099	2.307	2.526	2.755	b
¹⁸⁷ Au	2.670	2.967	3.129	3.482	3.762	4.226	4.507	-	4.851	5.429	59/2
D: 31/2 ⁻	2.659	2.934	3.215	3.502	3.794	4.092	4.397	4.707	5.024	5.346	
¹⁸⁷ Au	0.224	-	0.674	-	1.405	-	2.196	-	2.581	-	
E: 11/2 ⁻	0.222	0.457	0.719	1.006	1.316	1.649	2.002	2.375	2.767	3.177	c
¹⁸⁷ Au	2.115	2.282	2.431	2.565	2.923	3.057	3.677	3.811	-	4.577	57/2
F: 21/2 ⁺	2.057	2.261	2.477	2.704	2.941	3.189	3.446	3.712	3.988	4.272	c
¹⁸⁷ Hg	0.167	0.402	0.536	0.730	0.917	1.176	1.383	1.586	1.923	2.155	41/2
A+B: 11/2 ⁺	0.174	0.346	0.534	0.737	0.953	1.181	1.422	1.674	1.937	2.210	
¹⁸⁷ Hg	1.757	-	2.073	-	2.411	-	3.000	-	-	-	
C: 21/2 ⁻	1.740	1.903	2.081	2.273	2.479	2.699	2.934	3.183	3.446	3.723	a
¹⁸⁷ Hg	0.0	-	0.424	-	1.020	-	1.801	-	-	-	
D: 13/2 ⁺	-0.015	0.200	0.444	0.716	1.017	1.347	1.705	2.092	2.508	2.952	a
¹⁸⁷ Tl	0.335	0.729	0.997	1.446	-	-	-	-	-	-	
A: 9/2[505]	0.335	0.712	1.053	1.388	1.725	2.067	2.415	2.770	3.133	3.502	
¹⁸⁷ Tl	1.453	-	1.739	-	2.105	-	2.548	-	3.059	-	49/2
B: 17/2 ⁺	1.441	1.588	1.751	1.929	2.122	2.331	2.555	2.795	3.050	3.321	b
¹⁸⁷ Tl	0.952	1.262	1.587	1.950	-	-	-	-	-	-	
C: 11/2[505]	0.952	1.259	1.592	1.948	2.326	2.725	3.144	3.582	4.038	4.511	
¹⁸⁷ Tl	1.061	1.465	1.839	-	-	-	-	-	-	-	
D: 13/2[606]	1.061	1.464	1.839	2.209	2.579	2.954	3.335	3.723	4.117	4.519	
¹⁸⁷ Tl	1.434	1.448	1.823	1.876	2.277	2.364	2.794	2.910	3.365	3.512	37/2
F+G: 15/2 ⁻	1.373	1.548	1.743	1.955	2.184	2.431	2.693	2.971	3.264	3.572	b
¹⁸⁷ Pb	0.081	-	0.912	-	1.328	-	1.804	-	-	-	
A: 13/2 ⁺	0.081	0.442	0.758	1.062	1.361	1.660	1.961	2.265	2.573	2.885	

A=189

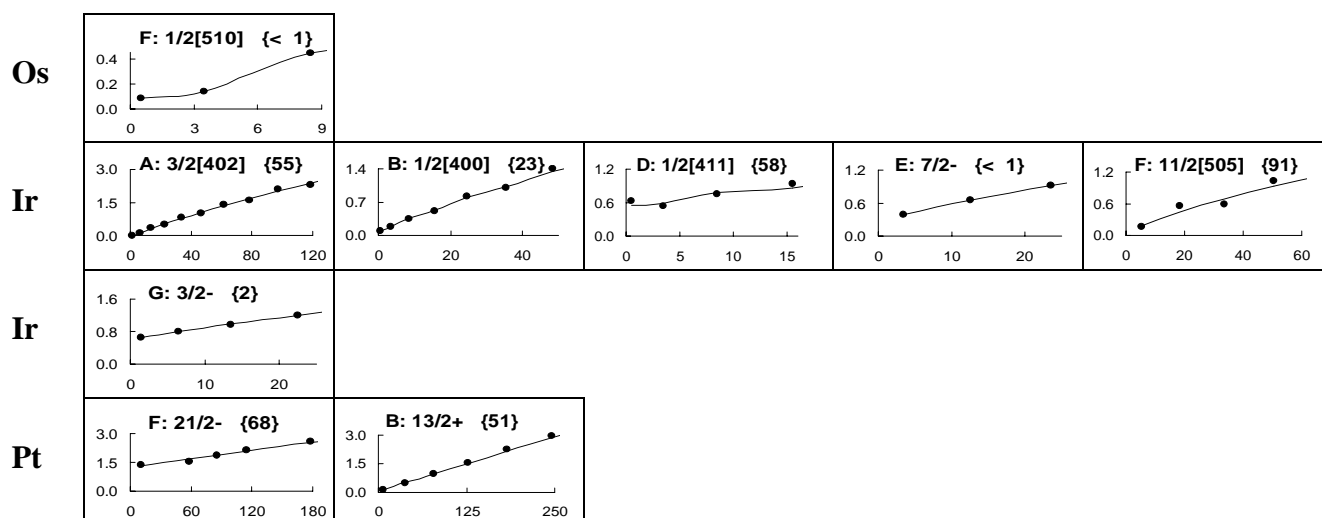
Firestone R.B. //NDS, 1990, v.59, p.869



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{189}Os	0.0	0.070	0.219	0.350	0.595	-	-	-	-	-	
A: $3/2[512]$	-0.007	0.079	0.199	0.353	0.542	0.765	1.022	1.313	1.639	1.999	a
^{189}Os	0.036	0.095	0.234	0.366	-	-	-	-	-	-	
B: $1/2[510]$	0.036	0.095	0.234	0.366	0.602	0.799	1.120	1.371	1.765	2.063	
^{189}Ir	0.0	0.114	0.301	0.454	0.746	0.919	1.297	1.482	-	2.110	
A: $3/2[402]$	-0.003	0.119	0.280	0.474	0.698	0.948	1.222	1.517	1.832	2.165	
^{189}Ir	0.094	0.176	0.318	0.465	0.719	0.899	1.249	-	-	-	
B: $1/2[400]$	0.095	0.172	0.320	0.476	0.708	0.922	1.217	1.476	1.822	2.118	
^{189}Ir	0.372	0.737	0.838	1.269	1.384	1.876	2.086	-	-	-	
C: $11/2[505]$	0.378	0.658	0.929	1.203	1.482	1.768	2.062	2.363	2.672	2.988	
^{189}Ir	0.564	-	0.742	-	1.101	-	1.609	-	-	-	
D: $7/2^-$	0.544	0.652	0.783	0.939	1.118	1.321	1.548	1.799	2.074	2.372	a
^{189}Tl	0.281	0.667	0.981	1.409	1.645	2.164	-	-	-	-	
A: $9/2^-$	0.279	0.667	1.018	1.362	1.708	2.059	2.417	2.782	3.154	3.533	
^{189}Tl	1.147	1.545	1.828	2.307	-	-	-	-	-	-	
B: $13/2^+$	1.153	1.510	1.884	2.275	2.683	3.107	3.548	4.005	4.476	4.962	
^{189}Tl	1.994	-	2.235	-	2.630	-	3.092	-	3.626	-	33/2
C: $13/2^+$	1.968	2.108	2.267	2.445	2.642	2.857	3.091	3.343	3.615	3.905	a

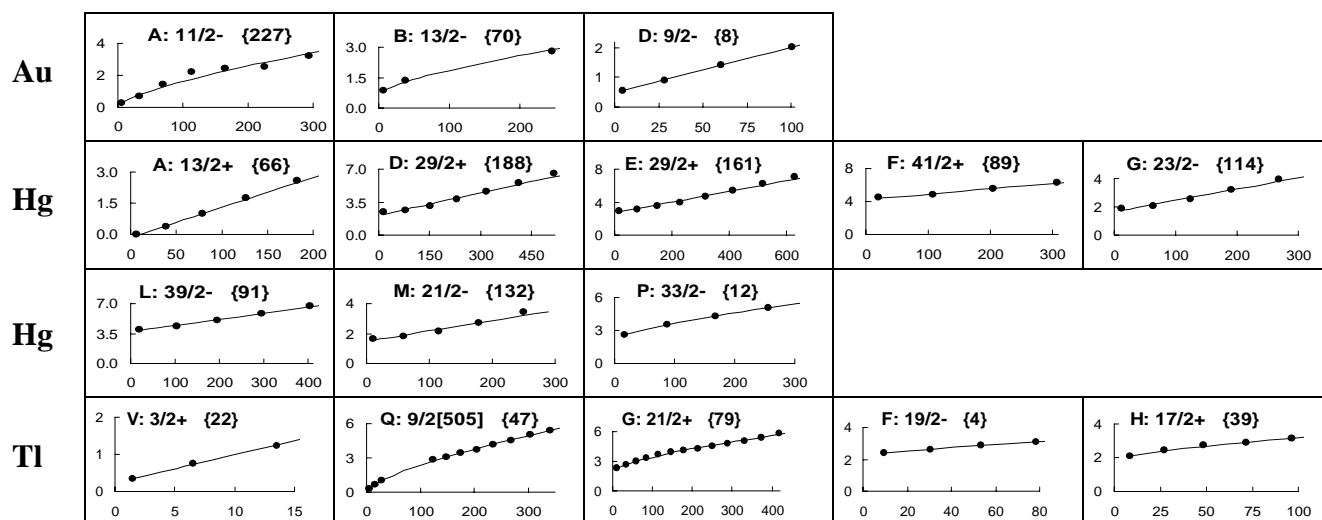
A=191

Browne E., Chu S.Y. //NDS, 1995, v.74, p.611



A=191 (continuation)

Browne E., Chu S.Y. //NDS, 1995, v.74, p.611



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁹¹ Os	0.084	0.142	0.442	-	-	-	-	-	-	-	
F: 1/2[510]	0.084	0.142	0.442	0.576	1.116	1.327	2.107	2.394	3.415	3.778	a
¹⁹¹ Ir	0.0	0.129	0.343	0.503	0.832	1.004	1.419	1.601	2.113	2.313	
A: 3/2[402]	-0.002	0.135	0.315	0.530	0.777	1.052	1.352	1.674	2.018	2.380	
¹⁹¹ Ir	0.082	0.179	0.351	0.504	0.813	0.992	1.398	-	-	-	
B: 1/2[400]	0.083	0.173	0.355	0.524	0.794	1.017	1.350	1.614	1.997	2.295	
¹⁹¹ Ir	0.624	0.539	0.748	0.936	-	-	-	-	-	-	
D: 1/2[411]	0.556	0.590	0.788	0.868	1.225	1.350	1.867	2.037	2.712	2.928	a
¹⁹¹ Ir	0.391	0.654	0.919	-	-	-	-	-	-	-	
E: 7/2 ⁻	0.391	0.654	0.919	1.194	1.481	1.780	2.090	2.411	2.743	3.086	
¹⁹¹ Ir	0.171	0.557	0.591	1.037	-	-	-	-	-	-	
F: 11/2[505]	0.174	0.450	0.696	0.934	1.171	1.410	1.651	1.896	2.144	2.397	
¹⁹¹ Ir	0.659	0.800	0.978	1.207	-	-	-	-	-	-	
G: 3/2 ⁻	0.660	0.797	0.981	1.205	1.466	1.759	2.082	2.431	2.805	3.203	
¹⁹¹ Pt	1.382	-	1.546	1.863	2.125	-	2.581	-	-	-	
F: 21/2 ⁻	1.322	1.488	1.669	1.865	2.075	2.299	2.538	2.791	3.059	3.342	a
¹⁹¹ Pt	0.149	-	0.471	-	0.951	-	1.550	-	2.233	-	33/2
B: 13/2 ⁺	0.146	0.316	0.509	0.725	0.964	1.225	1.509	1.816	2.146	2.498	a
¹⁹¹ Au	0.266	-	0.686	-	1.412	-	2.187	-	2.447	-	35/2
A: 11/2 ⁻	0.262	0.531	0.778	1.019	1.262	1.508	1.758	2.012	2.271	2.535	
¹⁹¹ Au	0.845	-	1.376	-	-	-	-	-	-	-	
B: 13/2 ⁻	0.875	1.087	1.283	1.474	1.666	1.860	2.056	2.256	2.459	2.666	
¹⁹¹ Au	0.540	-	0.911	-	1.431	-	2.032	-	-	-	
D: 9/2 ⁻	0.539	0.713	0.918	1.153	1.419	1.714	2.039	2.392	2.775	3.185	
¹⁹¹ Hg	0.0	-	0.390	-	1.019	-	1.769	-	2.588	-	x
A: 13/2 ⁺	-0.027	0.186	0.428	0.699	0.998	1.326	1.682	2.066	2.480	2.921	a
¹⁹¹ Hg	2.431	-	2.598	-	3.078	-	3.792	-	4.632	-	x, 53/2
D: 29/2 ⁺	2.217	2.463	2.725	3.003	3.296	3.606	3.931	4.273	4.630	5.003	a
¹⁹¹ Hg	2.935	-	3.167	-	3.487	-	3.988	-	4.667	-	x, 57/2
E: 29/2 ⁺	2.758	2.962	3.178	3.408	3.651	3.907	4.176	4.458	4.753	5.062	a
¹⁹¹ Hg	4.492	-	4.850	-	5.534	-	6.333	-	-	-	x
F: 41/2 ⁺	4.411	4.684	4.970	5.268	5.579	5.903	6.239	6.589	6.950	7.325	a
¹⁹¹ Hg	1.861	-	2.064	-	2.545	-	3.222	-	3.969	-	x
G: 23/2 ⁻	1.759	1.958	2.172	2.403	2.649	2.911	3.189	3.483	3.793	4.118	a

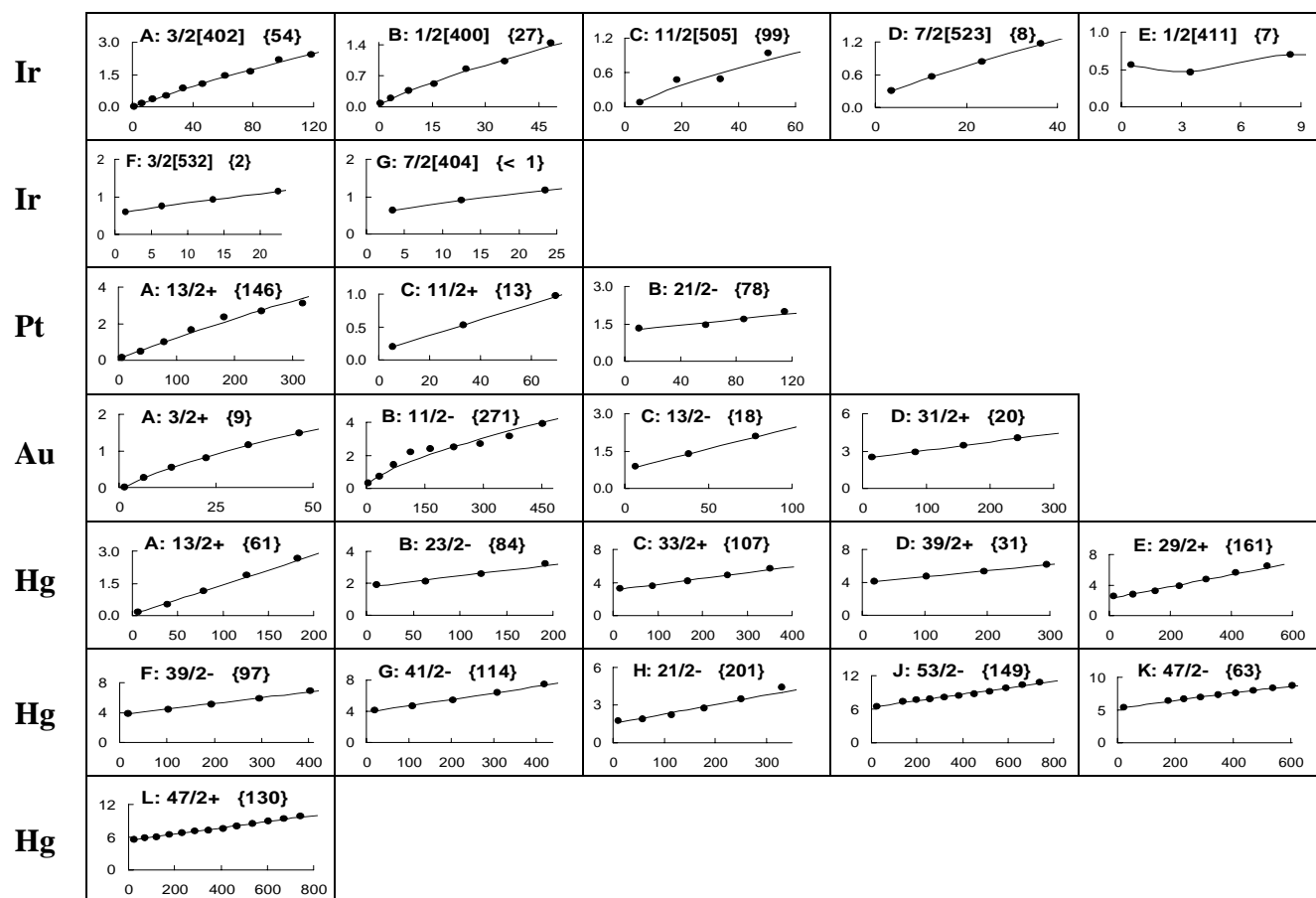
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=191 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{191}Hg L: $39/2^-$	3.957 3.865	- 4.152	4.357 4.454	- 4.769	5.006 5.099	- 5.442	5.795 5.800	- 6.172	6.678 6.557	- 6.957	x a
^{191}Hg M: $21/2^-$	1.637 1.542	- 1.700	1.804 1.872	- 2.058	2.123 2.258	- 2.471	2.690 2.698	- 2.939	3.428 3.194	- 3.462	x a
^{191}Hg P: $33/2^-$	2.643 2.644	- 3.094	3.518 3.509	- 3.906	4.276 4.295	- 4.679	5.072 5.061	- 5.441	- 5.822	- 6.204	x
^{191}Tl V: $3/2^+$	0.341 0.344	0.745 0.720	1.217 1.246	- 1.923	- 2.749	- 3.727	- 4.854	- 6.132	- 7.560	- 9.138	a
^{191}Tl Q: $9/2[505]$	0.299 0.301	0.686 0.675	1.011 1.014	- 1.348	- 1.684	- 2.025	- 2.373	2.852 2.728	3.077 3.089	3.446 3.459	37/2
^{191}Tl G: $21/2^+$	2.329 2.346	2.642 2.695	2.969 2.995	3.344 3.278	3.674 3.551	3.963 3.820	4.123 4.088	4.324 4.355	4.513 4.623	4.793 4.892	45/2
^{191}Tl F: $19/2^-$	2.408 2.407	2.622 2.626	2.862 2.856	3.094 3.096	- 3.346	- 3.605	- 3.874	- 4.151	- 4.437	- 4.731	
^{191}Tl H: $17/2^+$	2.078 2.103	2.432 2.410	2.739 2.672	2.883 2.919	3.131 3.160	- 3.398	- 3.635	- 3.873	- 4.112	- 4.352	

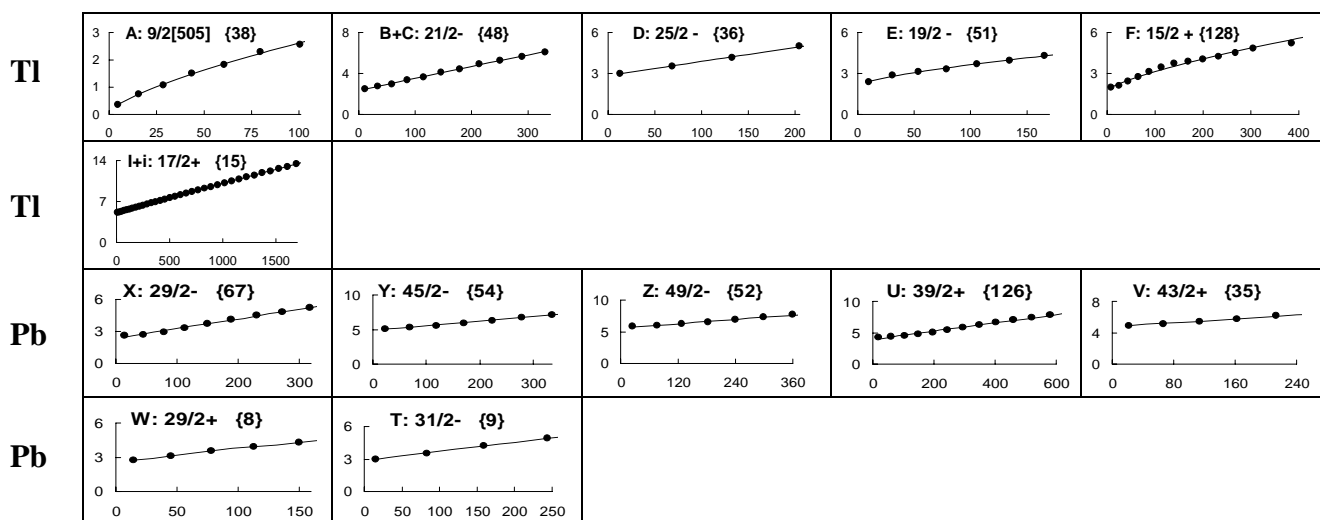
A=193

Artna-Cohen A. //NDS, 1998, v.83, p.921



A=193 (continuation)

Artna-Cohen A. //NDS, 1998, v.83, p.921



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{193}Ir	0.0	0.139	0.358	0.522	0.857	1.035	1.460	1.651	2.179	2.404	
A: $3/2[402]$	-0.001	0.143	0.330	0.553	0.807	1.089	1.396	1.725	2.075	2.444	
^{193}Ir	0.073	0.180	0.362	0.516	0.839	1.020	1.438	-	-	-	
B: $1/2[400]$	0.074	0.173	0.363	0.543	0.817	1.050	1.384	1.657	2.038	2.344	
^{193}Ir	0.080	0.469	0.479	0.930	-	-	-	-	-	-	
C: $11/2[505]$	0.081	0.347	0.585	0.814	1.043	1.274	1.507	1.743	1.984	2.228	
^{193}Ir	0.299	0.563	0.833	1.168	-	-	-	-	-	-	
D: $7/2[523]$	0.300	0.558	0.845	1.159	1.497	1.857	2.238	2.638	3.056	3.492	
^{193}Ir	0.557	0.461	0.695	-	-	-	-	-	-	-	
E: $1/2[411]$	0.548	0.468	0.700	0.597	0.882	0.762	1.087	0.952	1.310	1.164	
^{193}Ir	0.598	0.740	0.918	1.146	-	-	-	-	-	-	
F: $3/2[532]$	0.599	0.738	0.922	1.144	1.401	1.688	2.002	2.341	2.703	3.087	
^{193}Ir	0.621	0.892	1.169	-	-	-	-	-	-	-	
G: $7/2[404]$	0.621	0.892	1.169	1.458	1.760	2.076	2.404	2.745	3.098	3.461	
^{193}Pt	0.150	-	0.491	-	1.003	-	1.632	-	2.335	-	
A: $13/2^+$	0.148	0.331	0.534	0.754	0.991	1.244	1.512	1.794	2.089	2.398	
^{193}Pt	0.199	-	0.520	-	0.980	-	-	-	-	-	
C: $11/2^+$	0.198	0.353	0.532	0.735	0.962	1.213	1.487	1.785	2.108	2.454	a
^{193}Pt	1.321	-	1.455	1.690	1.992	-	-	-	-	-	
B: $21/2^-$	1.273	1.409	1.557	1.716	1.887	2.070	2.265	2.472	2.690	2.920	a
^{193}Au	0.0	0.258	0.539	0.809	1.154	1.478	-	-	-	-	
A: $3/2^+$	0.001	0.258	0.533	0.828	1.144	1.478	1.830	2.198	2.580	2.976	
^{193}Au	0.290	-	0.698	-	1.419	-	2.173	-	2.378	-	43/2
B: $11/2^-$	0.292	0.542	0.764	0.978	1.191	1.405	1.622	1.842	2.066	2.293	
^{193}Au	0.863	-	1.373	-	2.087	-	-	-	-	-	
C: $13/2^-$	0.859	1.110	1.394	1.712	2.064	2.449	2.868	3.320	3.805	4.324	a
^{193}Au	2.487	-	2.923	-	3.442	-	4.063	-	-	-	
D: $31/2^+$	2.474	2.700	2.940	3.193	3.460	3.741	4.036	4.344	4.665	5.001	a

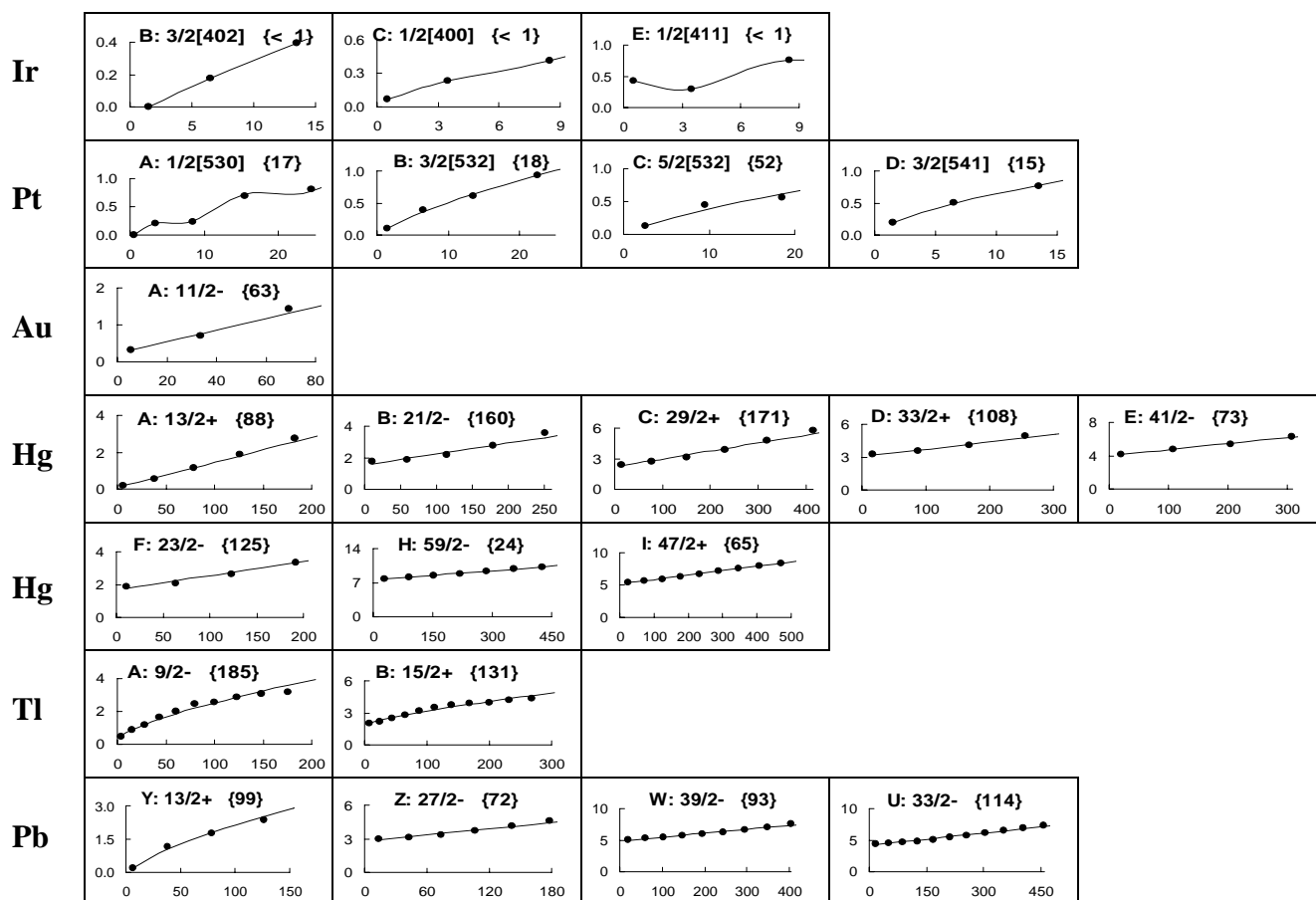
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=193 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁹³ Hg	0.141	-	0.523	-	1.145	-	1.884	-	2.642	-	
A: 13/2 ⁺	0.138	0.345	0.579	0.840	1.130	1.446	1.791	2.162	2.562	2.989	a
¹⁹³ Hg	1.891	-	2.096	-	2.584	-	3.224	-	-	-	
B: 23/2 ⁻	1.824	2.004	2.198	2.407	2.630	2.867	3.119	3.385	3.665	3.960	a
¹⁹³ Hg	3.260	-	3.570	-	4.120	-	4.890	-	5.698	-	
C: 33/2 ⁺	3.155	3.405	3.669	3.947	4.239	4.546	4.867	5.202	5.552	5.916	a
¹⁹³ Hg	4.120	-	4.684	-	5.362	-	6.164	-	-	-	
D: 39/2 ⁺	4.098	4.398	4.714	5.044	5.389	5.749	6.123	6.512	6.916	7.334	a
¹⁹³ Hg	2.502	-	2.696	-	3.176	-	3.881	-	4.688	-	53/2
E: 29/2 ⁺	2.312	2.553	2.811	3.084	3.372	3.677	3.996	4.332	4.683	5.049	a
¹⁹³ Hg	3.884	-	4.397	-	5.048	-	5.899	-	6.913	-	
F: 39/2 ⁻	3.809	4.124	4.453	4.798	5.159	5.534	5.925	6.331	6.753	7.190	a
¹⁹³ Hg	4.151	-	4.674	-	5.412	-	6.395	-	7.476	-	
G: 41/2 ⁻	4.051	4.401	4.768	5.151	5.550	5.966	6.398	6.846	7.311	7.791	a
¹⁹³ Hg	1.756	-	1.886	-	2.189	-	2.762	-	3.497	-	41/2
H: 21/2 ⁻	1.597	1.771	1.960	2.165	2.385	2.619	2.869	3.134	3.415	3.710	a
¹⁹³ Hg	6.419	(6.922)	7.277	7.700	7.838	8.137	8.395	8.751	9.222	9.676	75/2
J: 53/2 ⁻	6.500	6.815	7.141	7.478	7.827	8.187	8.559	8.942	9.336	9.742	a
¹⁹³ Hg	5.339	-	-	6.401	6.726	6.979	7.246	7.560	7.920	8.331	67/2
K: 47/2 ⁻	5.359	5.687	6.013	6.337	6.662	6.989	7.316	7.646	7.978	8.313	
¹⁹³ Hg	5.548	5.832	6.068	6.465	6.840	7.038	7.198	7.555	7.925	8.389	71/2
L: 47/2 ⁺	5.517	5.799	6.092	6.396	6.712	7.040	7.379	7.729	8.091	8.464	a
¹⁹³ Tl	0.365	0.757	1.081	1.512	1.833	2.303	2.574	-	-	-	x
A: 9/2[505]	0.365	0.748	1.113	1.479	1.852	2.234	2.626	3.028	3.441	3.863	
¹⁹³ Tl	2.505	2.774	2.982	3.374	3.667	4.123	4.463	4.941	5.286	5.670	x
B+C: 21/2 ⁻	2.482	2.758	3.055	3.374	3.713	4.072	4.451	4.848	5.265	5.699	
¹⁹³ Tl	3.005	-	3.548	-	4.179	-	5.016	-	-	-	x
D: 25/2 ⁻	2.988	3.266	3.565	3.885	4.225	4.586	4.967	5.369	5.792	6.235	a
¹⁹³ Tl	2.392	2.888	3.143	3.342	3.711	3.964	4.320	-	-	-	x
E: 19/2 ⁻	2.434	2.797	3.114	3.414	3.707	3.997	4.286	4.575	4.867	5.160	
¹⁹³ Tl	2.006	2.131	2.448	2.764	3.144	3.483	3.744	3.905	4.054	4.260	x, 41/2
F: 15/2 ⁺	1.984	2.256	2.512	2.765	3.017	3.273	3.532	3.796	4.064	4.336	
¹⁹³ Tl	5.142	5.240	5.348	5.467	5.596	5.735	5.883	6.043	6.211	6.391	x, 85/2
I+i: 17/2 ⁺	5.141	5.239	5.348	5.467	5.596	5.735	5.884	6.043	6.212	6.391	s
¹⁹³ Pb	2.584	2.686	2.939	3.320	3.722	4.136	4.470	4.828	5.218	-	x
X: 29/2 ⁻	2.469	2.750	3.050	3.368	3.704	4.058	4.430	4.821	5.230	5.656	a
¹⁹³ Pb	5.092	5.331	5.597	5.927	6.302	6.715	7.154	-	-	-	x
Y: 45/2 ⁻	5.026	5.334	5.654	5.988	6.335	6.695	7.068	7.454	7.853	8.266	a
¹⁹³ Pb	5.825	6.001	6.285	6.597	6.927	7.312	7.713	-	-	-	x
Z: 49/2 ⁻	5.746	6.033	6.331	6.641	6.962	7.294	7.638	7.993	8.359	8.736	a
¹⁹³ Pb	4.298	4.388	4.537	4.769	5.060	5.425	5.815	6.231	6.657	7.090	x, 61/2
U: 39/2 ⁺	4.060	4.333	4.618	4.917	5.230	5.555	5.894	6.247	6.612	6.991	a
¹⁹³ Pb	4.945	5.169	5.436	5.763	6.145	-	-	-	-	-	x
V: 43/2 ⁺	4.910	5.188	5.479	5.783	6.098	6.426	6.767	7.120	7.485	7.862	a
¹⁹³ Pb	2.769	3.133	3.542	3.924	4.313	-	-	-	-	-	x
W: 29/2 ⁺	2.766	3.146	3.530	3.921	4.318	4.723	5.135	5.554	5.981	6.416	
¹⁹³ Pb	2.994	-	3.541	-	4.180	-	4.893	-	-	-	x
T: 31/2 ⁻	2.987	3.262	3.553	3.860	4.185	4.526	4.883	5.257	5.648	6.055	a

A=195

Zhou Chunmei //NDS, 1999, v.86, p.645



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁹⁵ Ir B: 3/2[402]	0.0	0.175	0.394	-	-	-	-	-	-	-	
¹⁹⁵ Ir C: 1/2[400]	0.069	0.234	0.412	-	-	-	-	-	-	-	a
¹⁹⁵ Ir E: 1/2[411]	0.429	0.287	0.760	-	-	-	-	-	-	-	
¹⁹⁵ Pt A: 1/2[530]	0.005	0.211	0.239	0.695	0.814	-	-	-	-	-	a
¹⁹⁵ Pt B: 3/2[532]	0.099	0.389	0.613	0.931	-	-	-	-	-	-	
¹⁹⁵ Pt C: 5/2[532]	0.130	0.450	0.563	-	-	-	-	-	-	-	
¹⁹⁵ Pt D: 3/2[541]	0.199	0.508	0.766	-	-	-	-	-	-	-	
¹⁹⁵ Au A: 11/2 ⁻	0.312	0.319	0.706	-	1.425	-	-	-	-	-	a
¹⁹⁵ Hg A: 13/2 ⁺	0.171	0.176	0.547	-	1.158	-	1.869	-	2.759	-	a
¹⁹⁵ Hg B: 21/2 ⁻	1.622	1.744	1.870	-	2.172	-	2.774	-	3.556	-	a
¹⁹⁵ Hg C: 29/2 ⁺	2.270	2.413	2.691	-	3.159	-	3.869	-	4.742	-	a
¹⁹⁵ Hg D: 33/2 ⁺	3.186	3.265	3.563	-	4.080	-	4.902	-	5.710	-	a

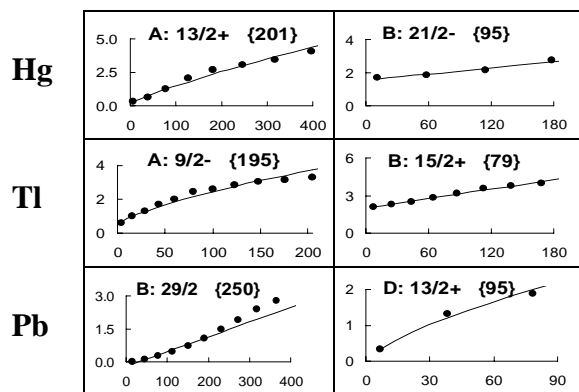
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=195 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁹⁵ Hg E: 41/2 ⁻	4.183 4.133	- 4.445	4.710 4.772	- 5.114	5.400 5.470	- 5.841	6.327 6.226	- 6.626	- 7.041	- 7.469	a
¹⁹⁵ Hg F: 23/2 ⁻	1.866 1.755	- 1.975	2.081 2.213	- 2.469	2.628 2.742	- 3.033	3.367 3.342	- 3.668	4.197 4.012	- 4.374	a
¹⁹⁵ Hg H: 59/2 ⁻	7.744 7.705	8.067 8.091	8.456 8.490	8.892 8.902	9.331 9.326	9.785 9.763	10.220 10.213	- 10.675	- 11.150	- 11.638	a
¹⁹⁵ Hg I: 47/2 ⁺	5.411 5.322	5.687 5.654	5.892 6.000	6.299 6.359	6.651 6.731	7.127 7.117	7.537 7.517	8.009 7.930	8.382 8.356	- 8.797	a
¹⁹⁵ Tl A: 9/2 ⁻	0.483 0.500	0.877 0.867	1.190 1.201	1.619 1.529	2.012 1.859	2.470 2.194	2.587 2.536	2.861 2.885	3.060 3.240	3.157 3.603	
¹⁹⁵ Tl B: 15/2 ⁺	2.037 2.048	2.213 2.314	2.530 2.564	2.841 2.809	3.202 3.055	3.514 3.303	3.730 3.555	3.885 3.810	4.003 4.070	4.175 4.334	
¹⁹⁵ Pb Y: 13/2 ⁺	0.203 0.205	- 0.651	1.173 1.041	- 1.414	1.754 1.782	- 2.149	2.372 2.518	- 2.891	- 3.269	- 3.651	
¹⁹⁵ Pb Z: 27/2 ⁻	2.968 2.873	3.098 3.154	3.362 3.453	3.735 3.772	4.120 4.111	4.566 4.469	- 4.846	- 5.242	- 5.658	- 6.093	
¹⁹⁵ Pb W: 39/2 ⁻	5.124 4.997	5.270 5.251	5.468 5.516	5.702 5.794	5.978 6.085	6.308 6.387	6.674 6.702	7.091 7.030	7.538 7.370	- 7.722	
¹⁹⁵ Pb U: 33/2 ⁻	4.465 4.273	4.559 4.501	4.693 4.742	4.865 4.995	5.107 5.262	5.412 5.542	5.770 5.835	6.144 6.140	6.529 6.459	6.907 6.791	

A=197

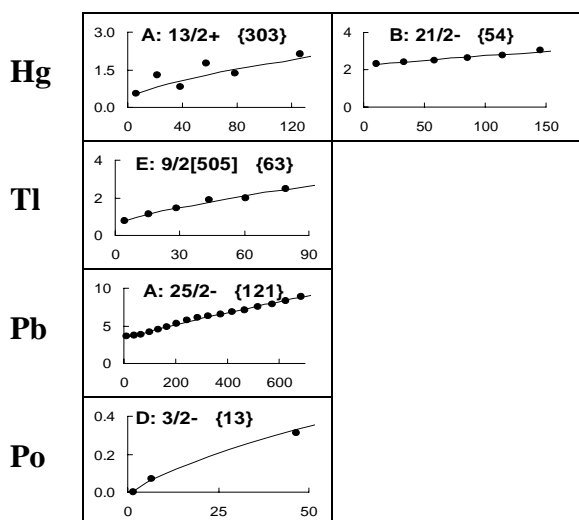
Zhou Chunmei //NDS, 1995, v.76, p.399



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁹⁷ Hg A: 13/2 ⁺	0.299 0.290	- 0.507	0.653 0.737	- 0.980	1.274 1.235	- 1.502	2.037 1.780	- 2.069	2.710 2.369	- 2.678	41/2
¹⁹⁷ Hg B: 21/2 ⁻	1.682 1.617	- 1.755	1.833 1.906	- 2.068	2.162 2.243	- 2.429	2.769 2.628	- 2.838	- 3.061	- 3.296	a
¹⁹⁷ Tl A: 9/2 ⁻	0.608 0.648	0.996 0.976	1.304 1.273	1.720 1.565	2.019 1.859	2.426 2.157	2.597 2.460	2.861 2.770	3.068 3.086	3.170 3.408	29/2
¹⁹⁷ Tl B: 15/2 ⁺	2.114 2.069	2.267 2.297	2.463 2.546	2.802 2.815	3.148 3.105	3.569 3.412	3.761 3.738	3.966 4.080	- 4.439	- 4.814	
¹⁹⁷ Pb B: 29/2	0.0 -0.110	0.112 0.099	0.263 0.321	0.463 0.557	0.729 0.806	1.067 1.069	1.470 1.345	1.916 1.635	2.383 1.938	2.754 2.255	x a
¹⁹⁷ Pb D: 13/2 ⁺	0.319 0.322	- 0.796	1.326 1.210	- 1.606	1.882 1.997	- 2.388	- 2.781	- 3.178	- 3.580	- 3.987	

A=199

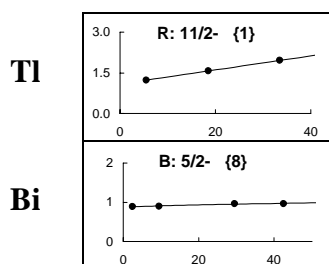
Artna-Cohen A. //NDS, 1994, v.72, p.297



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
¹⁹⁹ Hg A: 13/2 ⁺	0.533 0.554	1.274 0.810	0.824 1.044	1.769 1.273	1.357 1.501	- 1.731	2.107 1.963	- 2.199	- 2.439	- 2.683	
¹⁹⁹ Hg B: 21/2 ⁻	2.332 2.295	2.426 2.410	2.488 2.534	2.630 2.669	2.766 2.813	3.068 2.968	- 3.132	- 3.307	- 3.491	- 3.685	a
¹⁹⁹ Tl E: 9/2[505]	0.750 0.752	1.119 1.118	1.451 1.448	1.868 1.772	1.986 2.099	2.473 2.429	- 2.766	- 3.109	- 3.460	- 3.817	
¹⁹⁹ Pb A: 25/2 ⁻	3.584 3.440	3.674 3.708	3.848 3.984	4.124 4.271	4.483 4.567	4.884 4.872	5.305 5.185	5.727 5.508	6.055 5.839	6.290 6.178	57/2
¹⁹⁹ Po D: 3/2 ⁻	0.0 0.005	0.072 0.064	- 0.125	- 0.190	- 0.258	0.310 0.330	- 0.405	- 0.484	- 0.565	- 0.650	

A=201

Rab S. //NDS, 1994, v.71, p.421



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁰¹ Tl R: 11/2 ⁻	1.238 1.238	1.572 1.573	1.962 1.961	- 2.400	- 2.891	- 3.434	- 4.028	- 4.674	- 5.372	- 6.121	a, b
²⁰¹ Bi B: 5/2 ⁻	0.890 0.889	0.904 0.910	- 0.931	0.964 0.952	0.967 0.974	- 0.997	- 1.021	- 1.046	- 1.071	- 1.097	

ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=203

Rotational bands are not present.

Rab S. //NDS, 1993, v.70, p.173

A=205

Rotational bands are not present.

Rab S. //NDS, 1993, v.69, p.679

A=207

Rotational bands are not present.

Martin M.J. //NDS, 1993, v.70, p.315

A=209

Rotational bands are not present.

Martin M.J. //NDS, 1991, v.63, p.723

A=211

Rotational bands are not present.

Artna-Cohen A. //NDS, 1991, v.63, p.79

A=213

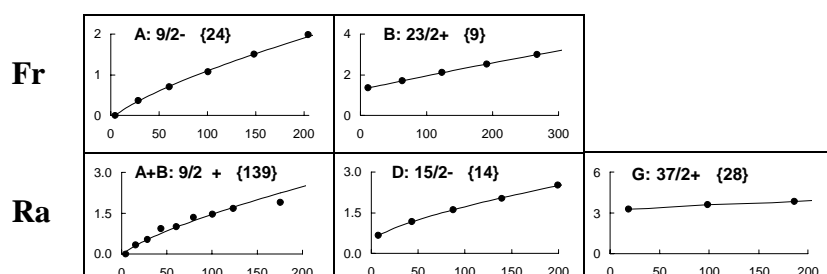
Rotational bands are not present.

Akovali Y.A. //NDS, 1992, v.66, p.237

A=215

Rotational bands are not present.

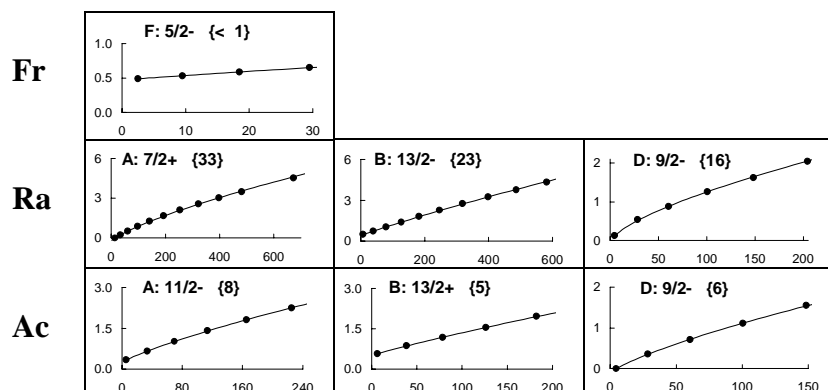
Browne E. //NDS, 2001, v.93, p.763

A=217
Akovali Y.A. //NDS, 1991, v.63, p.439


Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{217}Fr A: $9/2^-$	0.0 0.002	- 0.181	0.364 0.356	- 0.535	0.704 0.718	- 0.907	1.077 1.102	- 1.303	1.510 1.509	- 1.721	29/2
^{217}Fr B: $23/2^+$	1.355 1.356	- 1.529	1.714 1.712	- 1.904	2.111 2.105	- 2.315	2.517 2.533	- 2.759	3.002 2.993	- 3.234	
^{217}Ra A+B: $9/2^+$	0.0 0.095	0.331 0.316	0.540 0.534	0.931 0.756	1.002 0.985	1.338 1.222	1.454 1.465	1.668 1.717	- 1.975	1.896 2.240	
^{217}Ra D: $15/2^-$	0.666 0.667	- 0.934	1.173 1.168	- 1.392	1.611 1.612	- 1.832	2.030 2.053	- 2.275	2.521 2.500	- 2.727	
^{217}Ra G: $37/2^+$	3.258 3.272	- 3.445	3.629 3.590	- 3.723	3.826 3.850	- 3.972	- 4.092	- 4.210	- 4.327	- 4.443	

A=219

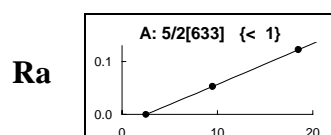
Browne E. //NDS, 2001, v.93, p.763



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²¹⁹ Fr	0.490	0.534	0.589	0.650	-	-	-	-	-	-	
F: 5/2 ⁻	0.490	0.534	0.588	0.650	0.720	0.796	0.879	0.967	1.060	1.158	
²¹⁹ Ra	0.0	-	0.234	-	0.529	-	0.876	-	1.271	-	51/2
A: 7/2 ⁺	-0.003	0.111	0.238	0.379	0.532	0.695	0.869	1.052	1.243	1.443	b
²¹⁹ Ra	0.496	-	0.734	-	1.036	-	1.394	-	1.816	-	49/2
B: 13/2 ⁻	0.491	0.610	0.742	0.888	1.047	1.218	1.400	1.595	1.800	2.016	b
²¹⁹ Ra	0.129	-	0.543	-	0.876	-	1.264	-	1.625	-	29/2
D: 9/2 ⁻	0.129	0.334	0.519	0.701	0.884	1.070	1.259	1.452	1.649	1.850	
²¹⁹ Ac	0.341	-	0.658	-	1.018	-	1.414	-	1.813	-	31/2
A: 11/2 ⁻	0.341	0.497	0.662	0.835	1.015	1.204	1.401	1.604	1.815	2.033	b
²¹⁹ Ac	0.577	-	0.867	-	1.183	-	1.547	-	1.960	-	
B: 13/2 ⁺	0.578	0.714	0.861	1.020	1.188	1.366	1.553	1.749	1.952	2.164	b
²¹⁹ Ac	0.0	-	0.355	-	0.714	-	1.116	-	1.552	-	
D: 9/2 ⁻	0.001	0.177	0.353	0.535	0.722	0.917	1.118	1.326	1.541	1.761	

A=221

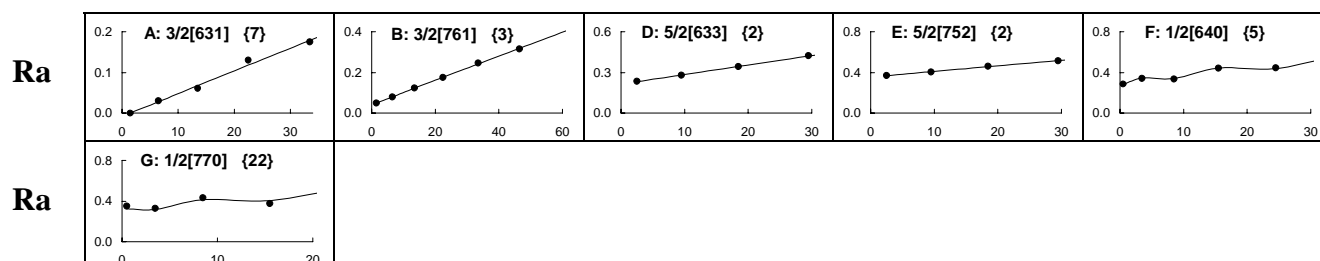
Akovali Y.A. //NDS, 1990, v.61, p.623



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²²¹ Ra	0.0	0.053	0.122	-	-	-	-	-	-	-	
A: 5/2[633]	0.0	0.053	0.122	0.206	0.304	0.419	0.548	0.693	0.853	1.028	a

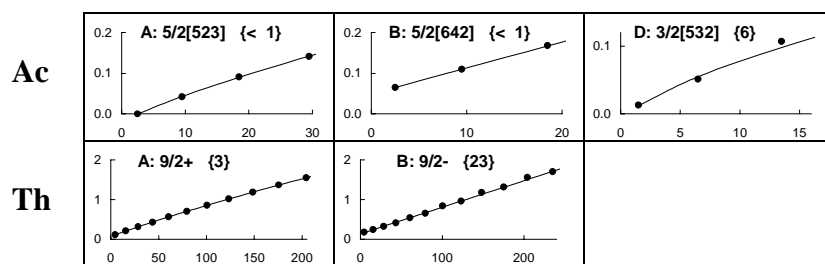
A=223

Browne E. //NDS, 2001, v.93, p.763



A=223 (continuation)

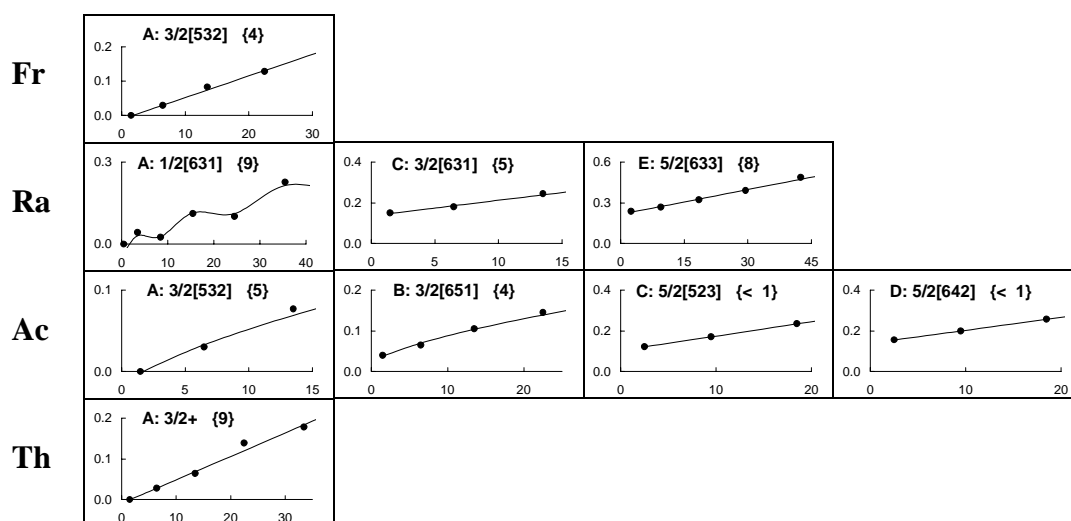
Browne E. //NDS, 2001, v.93, p.763



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²²³ Ra	0.0	0.030	0.061	0.130	0.175	-	-	-	-	-	
A: 3/2[631]	0.001	0.028	0.068	0.118	0.179	0.251	0.334	0.427	0.531	0.646	
²²³ Ra	0.050	0.080	0.124	0.175	0.247	0.315	-	-	-	-	
B: 3/2[761]	0.050	0.080	0.123	0.177	0.242	0.319	0.406	0.503	0.610	0.727	
²²³ Ra	0.235	0.280	0.343	0.424	-	-	-	-	-	-	
D: 5/2[633]	0.233	0.282	0.345	0.421	0.512	0.616	0.734	0.867	1.013	1.173	a
²²³ Ra	0.369	0.405	0.460	0.515	-	-	-	-	-	-	
E: 5/2[752]	0.368	0.408	0.457	0.516	0.583	0.659	0.743	0.834	0.932	1.037	
²²³ Ra	0.286	0.343	0.334	0.442	0.445	-	-	-	-	-	
F: 1/2[640]	0.282	0.345	0.342	0.443	0.438	0.564	0.558	0.702	0.696	0.855	
²²³ Ra	0.350	0.330	0.432	0.376	-	-	-	-	-	-	
G: 1/2[770]	0.325	0.319	0.414	0.406	0.528	0.517	0.659	0.647	0.804	0.791	
²²³ Ac	0.0	0.042	0.091	0.141	-	-	-	-	-	-	
A: 5/2[523]	0.0	0.043	0.090	0.142	0.198	0.257	0.320	0.386	0.456	0.528	
²²³ Ac	0.065	0.110	0.168	-	-	-	-	-	-	-	
B: 5/2[642]	0.065	0.110	0.167	0.236	0.315	0.404	0.502	0.609	0.725	0.848	
²²³ Ac	0.013	0.051	0.107	-	-	-	-	-	-	-	
D: 3/2[532]	0.012	0.055	0.098	0.144	0.193	0.244	0.297	0.353	0.410	0.470	
²²³ Th	0.119	0.212	0.320	0.429	0.570	0.706	0.858	1.022	1.185	1.371	29/2
A: 9/2 ⁺	0.119	0.212	0.317	0.436	0.566	0.707	0.858	1.019	1.189	1.367	b
²²³ Th	0.181	0.243	0.324	0.412	0.547	0.657	0.838	0.962	1.179	1.314	31/2
B: 9/2 ⁻	0.173	0.246	0.333	0.433	0.546	0.673	0.813	0.967	1.133	1.313	a, b

A=225

Akovali Y.A. //NDS, 1990, v.60, p.617



ROTATIONAL BANDS IN ODD-MASS NUCLEI

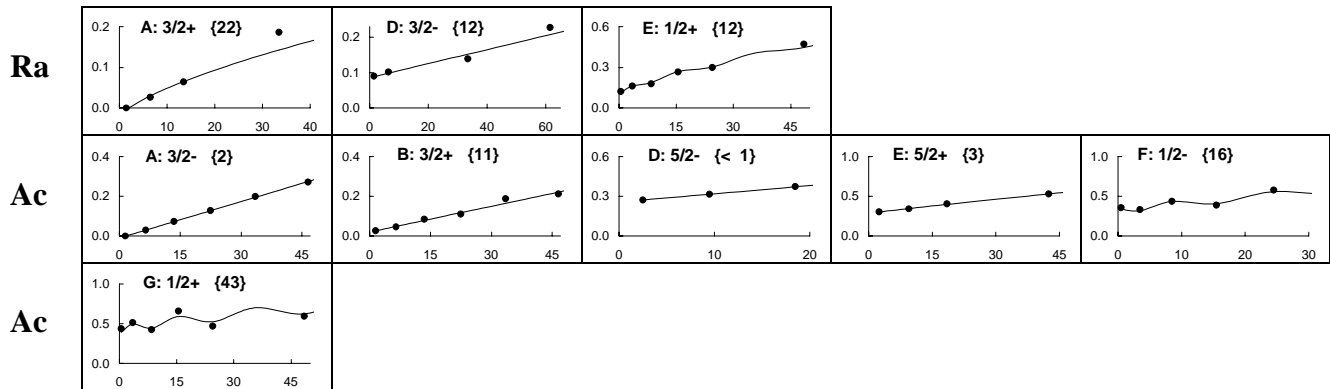
A=225

Akovali Y.A. //NDS, 1990, v.60, p.617

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
²²⁵ Fr A: 3/2[532]	0.0 -0.001	0.029 0.030	0.083 0.074	0.128 0.131	- 0.200	- 0.282	- 0.376	- 0.482	- 0.602	- 0.734	a
²²⁵ Ra A: 1/2[631]	0.0 -0.031	0.043 0.031	0.025 0.028	0.112 0.115	0.101 0.112	0.227 0.215	- 0.211	- 0.328	- 0.323	- 0.451	
²²⁵ Ra C: 3/2[631]	0.150 0.148	0.180 0.186	0.244 0.239	- 0.307	- 0.391	- 0.490	- 0.604	- 0.734	- 0.878	- 1.038	a
²²⁵ Ra E: 5/2[633]	0.236 0.231	0.268 0.273	0.322 0.328	0.390 0.395	0.487 0.474	- 0.565	- 0.669	- 0.784	- 0.912	- 1.052	a
²²⁵ Ac A: 3/2[532]	0.0 -0.001	0.030 0.033	0.077 0.069	- 0.108	- 0.148	- 0.191	- 0.237	- 0.284	- 0.333	- 0.383	
²²⁵ Ac B: 3/2[651]	0.040 0.038	0.065 0.070	0.105 0.104	0.145 0.139	- 0.177	- 0.217	- 0.259	- 0.303	- 0.348	- 0.395	
²²⁵ Ac C: 5/2[523]	0.121 0.121	0.171 0.171	0.235 0.235	- 0.314	- 0.407	- 0.515	- 0.637	- 0.773	- 0.923	- 1.088	a
²²⁵ Ac D: 5/2[642]	0.156 0.156	0.200 0.200	0.257 0.257	- 0.327	- 0.409	- 0.504	- 0.611	- 0.732	- 0.865	- 1.010	a
²²⁵ Th A: 3/2 ⁺	0.0 0.0	0.028 0.028	0.064 0.069	0.139 0.120	0.178 0.184	- 0.259	- 0.345	- 0.443	- 0.552	- 0.673	a

A=227

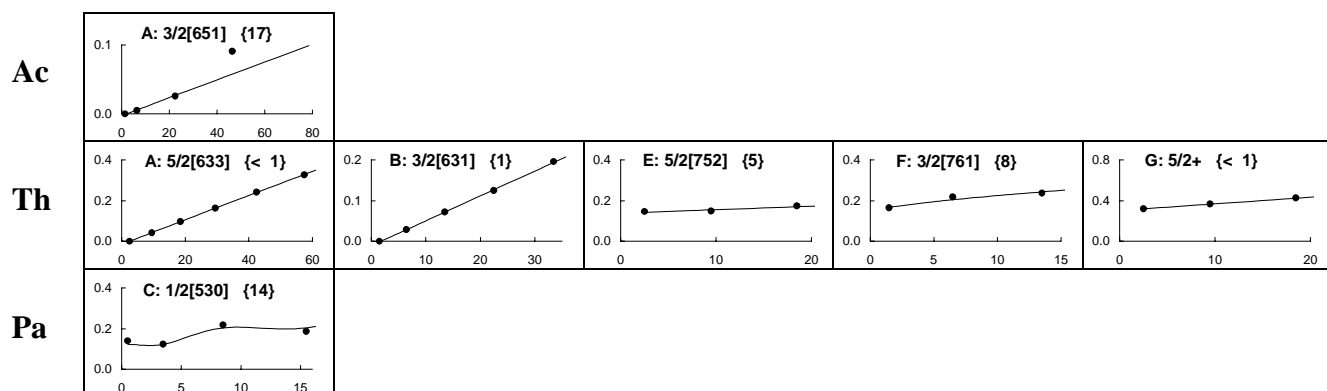
Browne E. //NDS, 2001, v.93, p.763



Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
²²⁷ Ra A: 3/2 ⁺	0.0 -0.003	0.026 0.030	0.064 0.065	- 0.103	0.186 0.143	- 0.185	- 0.229	- 0.275	- 0.322	- 0.372	
²²⁷ Ra D: 3/2 ⁻	0.090 0.089	0.102 0.099	- 0.113	- 0.131	0.139 0.152	- 0.178	0.228 0.208	- 0.241	- 0.279	- 0.320	a
²²⁷ Ra E: 1/2 ⁺	0.121 0.115	0.161 0.163	0.177 0.188	0.267 0.269	0.299 0.303	- 0.405	0.472 0.446	- 0.564	- 0.610	- 0.742	
²²⁷ Ac A: 3/2 ⁻	0.0 0.000	0.030 0.030	0.074 0.073	0.127 0.128	0.199 0.195	0.271 0.274	- 0.366	- 0.469	- 0.584	- 0.712	
²²⁷ Ac B: 3/2 ⁺	0.027 0.027	0.046 0.049	0.085 0.079	0.110 0.118	0.187 0.165	0.211 0.221	- 0.284	- 0.355	- 0.434	- 0.521	
²²⁷ Ac D: 5/2 ⁻	0.273 0.273	0.316 0.316	0.372 0.372	- 0.440	- 0.520	- 0.613	- 0.718	- 0.835	- 0.965	- 1.107	a
²²⁷ Ac E: 5/2 ⁺	0.305 0.303	0.342 0.346	0.403 0.399	- 0.460	0.528 0.529	- 0.605	- 0.688	- 0.777	- 0.871	- 0.971	
²²⁷ Ac F: 1/2 ⁻	0.354 0.337	0.330 0.320	0.438 0.435	0.387 0.408	0.577 0.558	- 0.526	- 0.701	- 0.664	- 0.859	- 0.818	
²²⁷ Ac G: 1/2 ⁺	0.435 0.394	0.514 0.496	0.426 0.445	0.656 0.590	0.469 0.525	- 0.700	0.593 0.624	- 0.821	- 0.737	- 0.954	

A=229

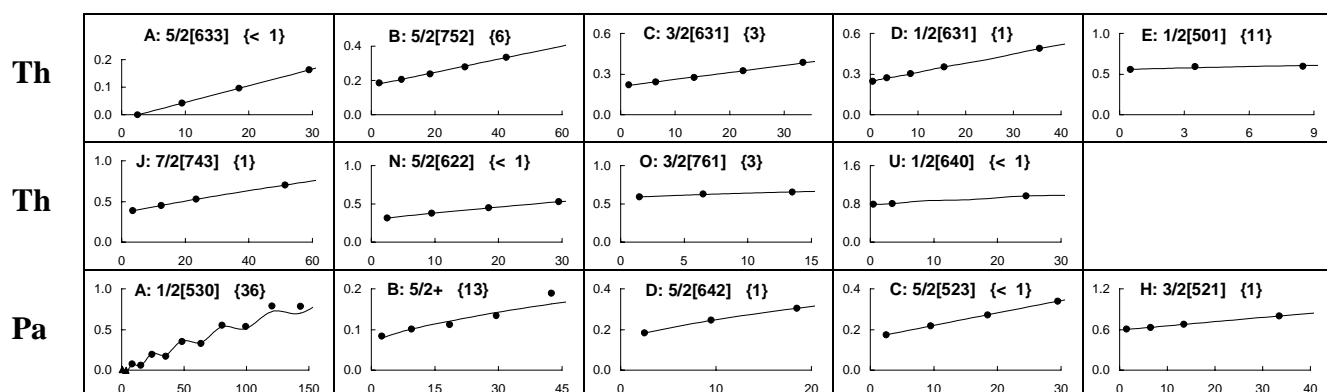
Akovali Y.A. //NDS, 1989, v.58, p.555



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²²⁹ Ac	0.0	0.005	-	0.026	-	0.091	-	-	-	-	
A: 3/2[651]	-0.001	0.006	0.015	0.027	0.041	0.058	0.077	0.099	0.124	0.151	a
²²⁹ Th	0.0	0.042	0.097	0.163	0.242	0.327	-	-	-	-	
A: 5/2[633]	0.0	0.043	0.097	0.163	0.240	0.329	0.427	0.536	0.655	0.784	
²²⁹ Th	0.0	0.029	0.072	0.125	0.196	-	-	-	-	-	
B: 3/2[631]	-0.001	0.029	0.072	0.127	0.194	0.273	0.365	0.468	0.584	0.712	a
²²⁹ Th	0.146	0.148	0.174	-	-	-	-	-	-	-	
E: 5/2[752]	0.143	0.155	0.170	0.188	0.210	0.235	0.263	0.295	0.330	0.368	a
²²⁹ Th	0.164	0.217	0.237	-	-	-	-	-	-	-	
F: 3/2[761]	0.168	0.205	0.243	0.284	0.327	0.373	0.420	0.470	0.521	0.575	
²²⁹ Th	0.320	0.366	0.426	-	-	-	-	-	-	-	
G: 5/2 ⁺	0.320	0.366	0.425	0.498	0.583	0.682	0.794	0.919	1.057	1.208	a
²²⁹ Pa	0.140	0.123	0.217	0.187	-	-	-	-	-	-	
C: 1/2[530]	0.123	0.123	0.204	0.204	0.306	0.307	0.425	0.426	0.557	0.557	

A=231

Browne E. //NDS, 2001, v.93, p.763



ROTATIONAL BANDS IN ODD-MASS NUCLEI

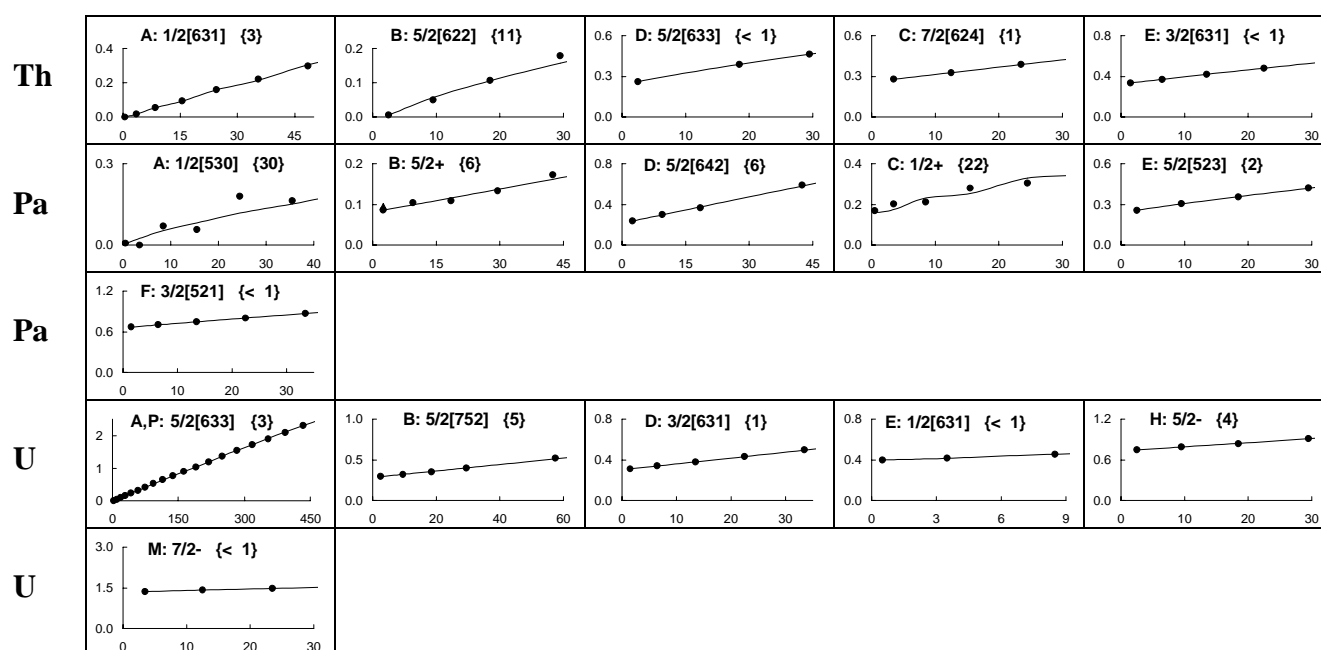
A=231

Browne E. //NDS, 2001, v.93, p.763

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{231}Th A: 5/2[633]	0.0	0.042	0.096	0.162	-	-	-	-	-	-	a
^{231}Th B: 5/2[752]	0.186	0.205	0.237	0.278	0.334	0.402	-	-	-	-	a
^{231}Th C: 3/2[631]	0.221	0.241	0.275	0.325	0.386	-	-	-	-	-	a
^{231}Th D: 1/2[631]	0.248	0.272	0.302	0.352	-	0.490	-	-	-	-	a
^{231}Th E: 1/2[501]	0.555	0.594	0.596	-	-	-	-	-	-	-	
^{231}Th J: 7/2[743]	0.388	0.452	0.530	-	0.704	-	-	-	-	-	
^{231}Th N: 5/2[622]	0.317	0.378	0.449	0.530	-	-	-	-	-	-	
^{231}Th O: 3/2[761]	0.591	0.629	0.656	-	-	-	-	-	-	-	
^{231}Th U: 1/2[640]	0.793	0.808	-	-	0.967	-	-	-	-	-	
^{231}Pa A: 1/2[530]	0.0	-	0.078	0.059	0.193	0.169	0.353	0.329	0.553	0.536	23/2
^{231}Pa B: 5/2 ⁺	0.084	0.101	0.112	0.134	0.189	-	-	-	-	-	c
^{231}Pa D: 5/2[642]	0.184	0.247	0.304	-	-	-	-	-	-	-	
^{231}Pa C: 5/2[523]	0.174	0.218	0.272	0.340	-	-	-	-	-	-	
^{231}Pa H: 3/2[521]	0.604	0.632	0.676	-	0.801	-	-	-	-	-	a
	0.603	0.633	0.677	0.732	0.800	0.880	0.973	1.078	1.196	1.325	

A=233

Akovali Y.A. //NDS, 1990, v.59, p.263



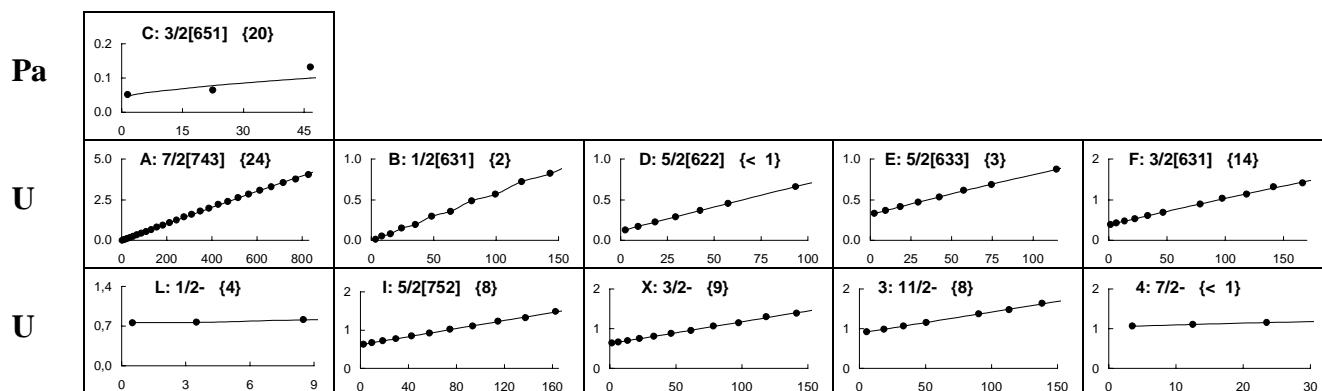
A=233

Akovali Y.A. //NDS, 1990, v.59, p.263

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{233}Th A: 1/2[631]	0.0	0.017	0.055	0.094	0.159	0.220	0.297	-	-	-	
^{233}Th B: 5/2[622]	0.006	0.050	0.107	0.178	-	-	-	-	-	-	
^{233}Th D: 5/2[633]	0.262	-	0.389	0.464	-	-	-	-	-	-	
^{233}Th C: 7/2[624]	0.279	0.326	0.389	-	-	-	-	-	-	-	a
^{233}Th E: 5/2[631]	0.279	0.328	0.387	0.458	0.540	0.632	0.735	0.849	0.974	1.110	
^{233}Th E: 5/2[631]	0.336	0.371	0.421	0.481	-	-	-	-	-	-	
^{233}Pa A: 1/2[530]	0.336	0.372	0.421	0.481	0.552	0.633	0.723	0.821	0.926	1.039	
^{233}Pa A: 1/2[530]	0.007	0.0	0.070	0.057	0.180	0.163	-	-	-	-	
^{233}Pa B: 5/2 ⁺	0.005	0.025	0.054	0.082	0.118	0.152	0.194	0.231	0.278	0.319	
^{233}Pa B: 5/2 ⁺	0.086	0.104	0.109	0.133	0.173	-	-	-	-	-	b
^{233}Pa D: 5/2[642]	0.086	0.099	0.116	0.137	0.162	0.191	0.224	0.260	0.300	0.344	b
^{233}Pa D: 5/2[642]	0.238	0.301	0.366	-	0.589	-	-	-	-	-	a
^{233}Pa D: 5/2[642]	0.237	0.298	0.375	0.470	0.582	0.711	0.858	1.022	1.203	1.401	a
^{233}Pa C: 1/2 ⁺	0.169	0.202	0.212	0.280	0.304	-	-	-	-	-	
^{233}Pa C: 1/2 ⁺	0.159	0.175	0.232	0.254	0.329	0.355	0.441	0.471	0.567	0.600	
^{233}Pa E: 5/2[523]	0.257	0.306	0.355	0.421	-	-	-	-	-	-	
^{233}Pa E: 5/2[523]	0.258	0.304	0.358	0.419	0.487	0.560	0.639	0.722	0.810	0.902	
^{233}Pa F: 3/2[521]	0.670	0.704	0.749	0.803	0.871	-	-	-	-	-	
^{233}Pa F: 3/2[521]	0.670	0.703	0.748	0.804	0.870	0.946	1.029	1.121	1.220	1.325	
^{233}U A+P: 5/2[633]	0.0	0.040	0.092	0.155	0.229	0.315	0.411	0.518	0.635	0.762	41/2
^{233}U A+P: 5/2[633]	0.0	0.040	0.092	0.156	0.230	0.315	0.411	0.517	0.634	0.760	
^{233}U B: 5/2[752]	0.299	0.321	0.354	0.398	-	0.522	-	-	-	-	
^{233}U B: 5/2[752]	0.294	0.322	0.358	0.402	0.454	0.514	0.582	0.658	0.743	0.835	a
^{233}U D: 3/2[631]	0.312	0.341	0.379	0.432	0.497	-	-	-	-	-	
^{233}U D: 3/2[631]	0.312	0.340	0.381	0.432	0.496	0.571	0.657	0.755	0.864	0.985	a
^{233}U E: 1/2[631]	0.399	0.416	0.456	-	-	-	-	-	-	-	
^{233}U E: 1/2[631]	0.399	0.416	0.456	0.482	0.534	0.565	0.627	0.662	0.731	0.770	
^{233}U H: 5/2 ⁻	0.749	0.790	0.838	0.916	-	-	-	-	-	-	
^{233}U H: 5/2 ⁻	0.747	0.790	0.844	0.911	0.990	1.082	1.185	1.301	1.429	1.568	a
^{233}U M: 7/2 ⁻	1.366	1.420	1.482	-	-	-	-	-	-	-	
^{233}U M: 7/2 ⁻	1.366	1.420	1.482	1.551	1.625	1.706	1.791	1.882	1.977	2.076	

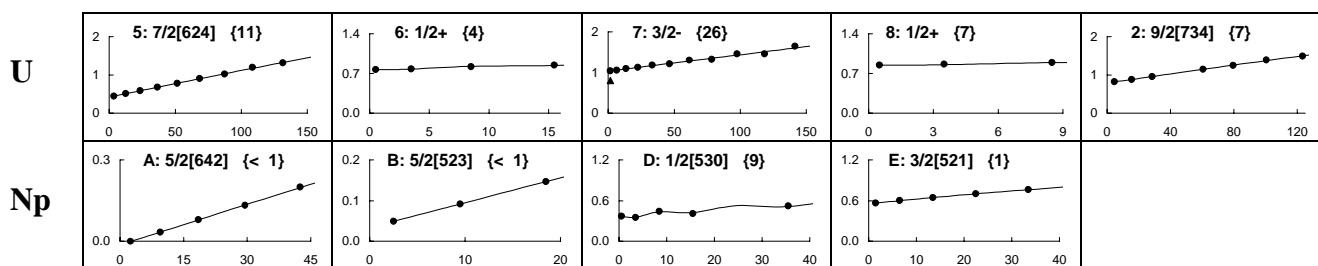
A=235

Schmorak M.R. //NDS, 1993, v.69, p.375



A=235 (continuation)

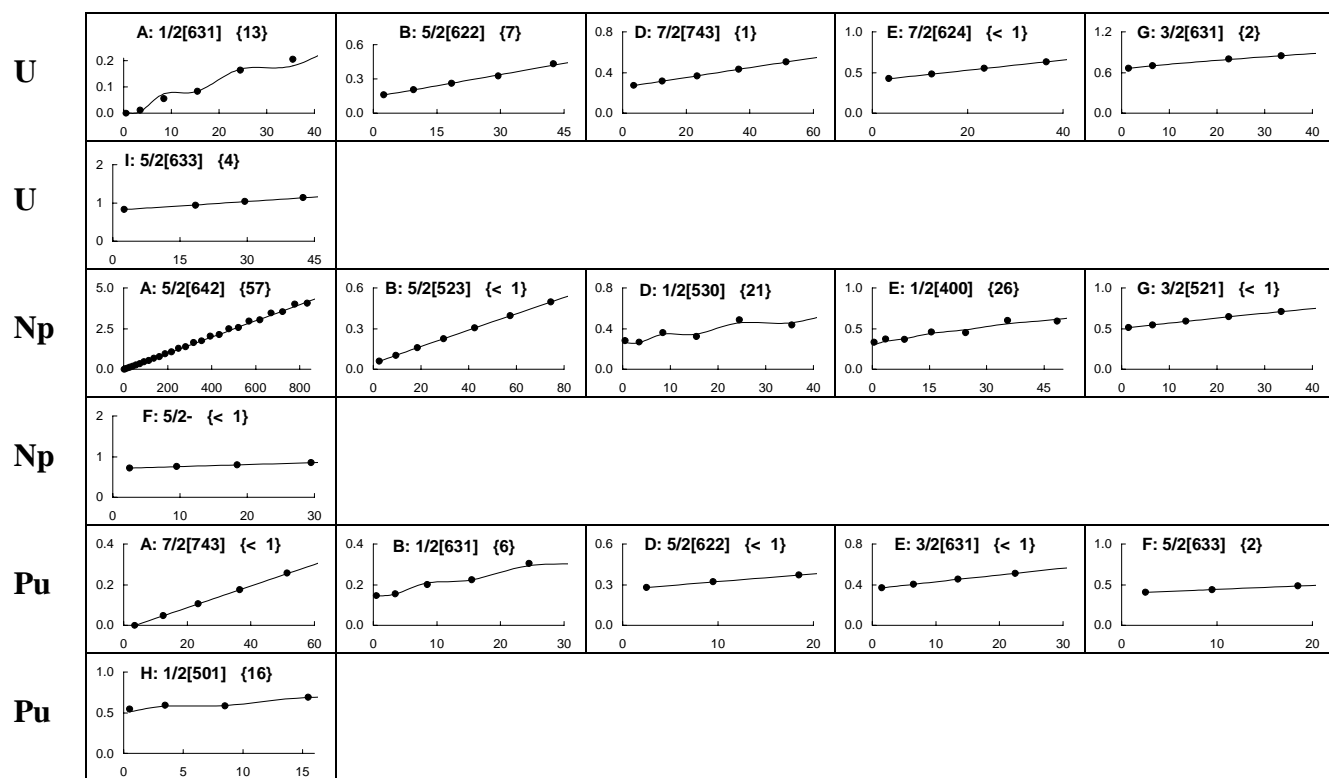
Schmorak M.R. //NDS, 1993, v.69, p.375



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²³⁵ Pa	0.052	-	-	0.065	-	0.132	-	-	-	-	
C: 3/2[651]	0.048	0.058	0.067	0.078	0.089	0.100	0.112	0.124	0.137	0.151	
²³⁵ U	0.0	0.046	0.103	0.171	0.249	0.338	0.439	0.550	0.671	0.805	57/2
A: 7/2[743]	-0.001	0.047	0.105	0.173	0.252	0.341	0.440	0.550	0.669	0.798	
²³⁵ U	0.0	0.013	0.052	0.082	0.150	0.197	0.295	0.357	0.485	0.568	23/2
B: 1/2[631]	0.0	0.013	0.052	0.081	0.150	0.197	0.296	0.359	0.488	0.567	
²³⁵ U	0.129	0.171	0.225	0.291	0.369	0.454	-	0.661	-	-	
D: 5/2[622]	0.129	0.172	0.226	0.291	0.368	0.455	0.553	0.661	0.779	0.906	
²³⁵ U	0.333	0.367	0.415	0.471	0.532	0.616	0.687	-	0.874	-	
E: 5/2[633]	0.332	0.368	0.415	0.471	0.536	0.609	0.690	0.779	0.875	0.978	
²³⁵ U	0.393	0.427	0.474	0.533	0.608	0.690	-	0.892	1.032	1.133	25/2
F: 3/2[631]	0.393	0.427	0.474	0.534	0.607	0.693	0.790	0.898	1.017	1.146	
²³⁵ U	0.761	0.770	0.812	-	-	-	-	-	-	-	
L: 1/2 ⁻	0.765	0.765	0.811	0.811	0.867	0.867	0.931	0.931	1.001	1.001	
²³⁵ U	0.633	0.671	0.720	0.778	0.850	0.923	1.021	1.107	1.235	1.329	25/2
I: 5/2[752]	0.634	0.671	0.719	0.777	0.846	0.926	1.015	1.115	1.226	1.347	
²³⁵ U	0.638	0.664	0.701	0.751	0.806	0.882	0.953	1.063	1.150	1.298	23/2
X: 3/2 ⁻	0.636	0.663	0.701	0.750	0.810	0.881	0.963	1.056	1.159	1.274	a
²³⁵ U	0.921	0.987	1.065	1.155	-	1.373	1.474	1.636	-	-	
3: 11/2 ⁻	0.919	0.987	1.067	1.157	1.257	1.369	1.490	1.623	1.766	1.919	a
²³⁵ U	1.063	1.108	1.152	-	-	-	-	-	-	-	
4: 7/2 ⁻	1.063	1.108	1.152	1.195	1.240	1.286	1.334	1.383	1.433	1.485	
²³⁵ U	0.446	0.510	0.588	0.683	0.780	0.912	1.025	1.201	1.314	-	
5: 7/2[624]	0.445	0.510	0.589	0.681	0.787	0.904	1.034	1.176	1.330	1.494	
²³⁵ U	0.769	0.780	0.821	0.845	-	-	-	-	-	-	
6: 1/2 ⁺	0.766	0.777	0.826	0.841	0.903	0.921	0.992	1.013	1.091	1.114	
²³⁵ U	1.039	1.061	1.098	1.126	1.187	1.215	1.307	1.326	1.460	1.457	23/2
7: 3/2 ⁻	1.044	1.064	1.092	1.128	1.172	1.224	1.284	1.352	1.428	1.513	c
²³⁵ U	0.844	0.865	0.892	-	-	-	-	-	-	-	
8: 1/2 ⁺	0.850	0.854	0.893	0.898	0.945	0.952	1.005	1.012	1.070	1.078	
²³⁵ U	0.822	0.886	0.960	-	1.151	1.251	1.392	1.495	-	-	
2: 9/2[734]	0.820	0.886	0.963	1.051	1.149	1.258	1.376	1.504	1.641	1.787	
²³⁵ Np	0.0	0.034	0.079	0.133	0.200	-	-	-	-	-	
A: 5/2[642]	0.0	0.034	0.079	0.134	0.198	0.272	0.356	0.451	0.555	0.669	a
²³⁵ Np	0.049	0.092	0.147	-	-	-	-	-	-	-	
B: 5/2[523]	0.049	0.092	0.147	0.214	0.293	0.384	0.488	0.604	0.732	0.872	a
²³⁵ Np	0.371	0.352	0.441	0.408	-	0.520	-	-	-	-	
D: 1/2[530]	0.363	0.355	0.435	0.424	0.526	0.513	0.630	0.615	0.745	0.729	
²³⁵ Np	0.565	0.602	0.644	0.700	0.761	-	-	-	-	-	
E: 3/2[521]	0.566	0.600	0.646	0.700	0.761	0.829	0.903	0.982	1.067	1.156	

A=237

Akovali Y.A. //NDS, 1995, v.74, p.461



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
^{237}U	0.0	0.011	0.056	0.083	0.163	0.205	-	-	-	-	
A: 1/2[631]	0.0	0.007	0.074	0.084	0.168	0.180	0.277	0.290	0.397	0.412	
^{237}U	0.160	0.204	0.261	0.327	0.432	-	-	-	-	-	
B: 5/2[622]	0.159	0.204	0.263	0.335	0.420	0.517	0.628	0.752	0.889	1.039	a
^{237}U	0.274	0.316	0.367	0.432	0.506	-	-	-	-	-	
D: 7/2[743]	0.273	0.316	0.369	0.432	0.504	0.586	0.677	0.778	0.889	1.009	a
^{237}U	0.426	0.482	0.551	0.632	-	-	-	-	-	-	
E: 7/2[624]	0.426	0.482	0.551	0.632	0.726	0.832	0.950	1.081	1.225	1.381	a
^{237}U	0.664	0.698	-	0.798	0.848	-	-	-	-	-	
G: 3/2[631]	0.663	0.700	0.744	0.794	0.850	0.911	0.975	1.044	1.116	1.192	a
^{237}U	0.832	-	0.946	1.040	1.140	-	-	-	-	-	
I: 5/2[633]	0.830	0.884	0.953	1.038	1.138	1.254	1.385	1.531	1.693	1.870	a
^{237}Np	0.0	0.033	0.076	0.130	0.191	0.270	0.349	0.454	0.547	0.684	57/2
A: 5/2[642]	-0.001	0.034	0.079	0.134	0.199	0.274	0.359	0.454	0.559	0.674	a
^{237}Np	0.060	0.103	0.159	0.226	0.305	0.396	0.497	-	-	-	
B: 5/2[523]	0.060	0.103	0.159	0.226	0.305	0.396	0.497	0.609	0.732	0.865	
^{237}Np	0.281	0.268	0.360	0.324	0.486	0.434	-	-	-	-	
D: 1/2[530]	0.262	0.263	0.347	0.348	0.457	0.458	0.585	0.587	0.728	0.730	
^{237}Np	0.332	0.371	0.369	0.460	0.452	0.598	0.592	-	-	-	
E: 1/2[400]	0.303	0.345	0.379	0.442	0.486	0.562	0.614	0.701	0.759	0.854	
^{237}Np	0.514	0.546	0.590	0.646	0.709	-	-	-	-	-	
G: 3/2[521]	0.514	0.546	0.590	0.645	0.709	0.783	0.864	0.953	1.048	1.150	
^{237}Np	0.722	0.756	0.800	0.853	-	-	-	-	-	-	
F: 5/2 ⁻	0.722	0.756	0.800	0.853	0.916	0.988	1.069	1.160	1.258	1.366	

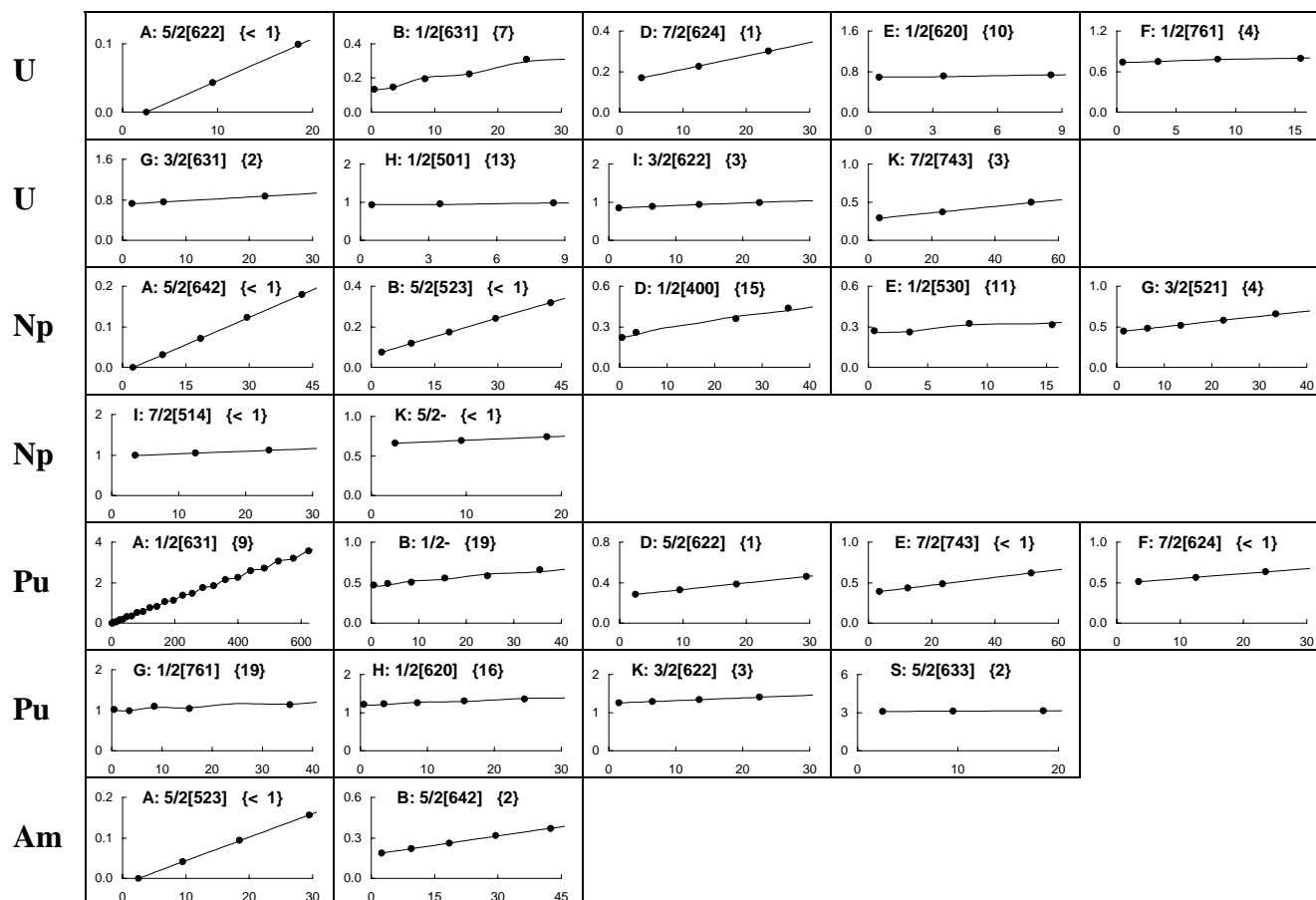
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=237 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²³⁷ Pu	0.0	0.048	0.106	0.175	0.257	-	-	-	-	-	
A: 7/2[743]	0.0	0.048	0.106	0.175	0.255	0.346	0.447	0.559	0.681	0.814	a
²³⁷ Pu	0.146	0.155	0.201	0.224	0.304	-	-	-	-	-	
B: 1/2[631]	0.144	0.155	0.209	0.224	0.294	0.313	0.395	0.416	0.507	0.530	
²³⁷ Pu	0.280	0.321	0.371	-	-	-	-	-	-	-	
D: 5/2[622]	0.280	0.321	0.371	0.429	0.494	0.566	0.644	0.728	0.816	0.910	
²³⁷ Pu	0.370	0.404	0.453	0.513	-	-	-	-	-	-	
E: 3/2[631]	0.370	0.405	0.453	0.513	0.586	0.670	0.765	0.871	0.987	1.112	
²³⁷ Pu	0.408	0.438	0.486	-	-	-	-	-	-	-	
F: 5/2[633]	0.407	0.441	0.485	0.539	0.602	0.675	0.758	0.851	0.954	1.066	a
²³⁷ Pu	0.545	0.591	0.582	0.691	-	-	-	-	-	-	
H: 1/2[501]	0.514	0.582	0.588	0.689	0.696	0.819	0.828	0.968	0.977	1.131	

A=239

Schmorak M.R. //NDS, 1992, v.66, p.839



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²³⁹ U	0.0	0.043	0.099	-	-	-	-	-	-	-	
A: 5/2[622]	0.0	0.043	0.098	0.165	0.245	0.337	0.442	0.558	0.687	0.828	a
²³⁹ U	0.134	0.146	0.194	0.222	0.308	-	-	-	-	-	
B: 1/2[631]	0.130	0.145	0.202	0.224	0.296	0.322	0.406	0.436	0.529	0.562	

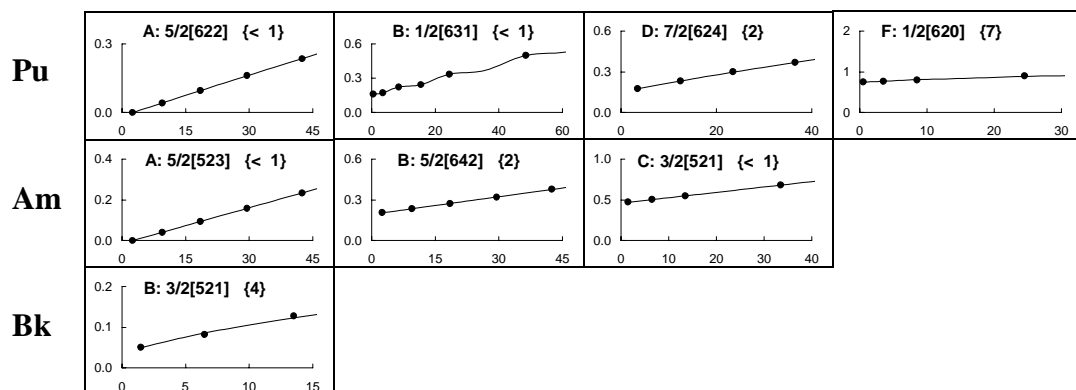
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=239 (end of the table)

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
²³⁹ U D: 7/2[624]	0.169 0.169	0.226 0.228	0.302 0.300	- 0.386	- 0.485	- 0.597	- 0.722	- 0.861	- 1.012	- 1.177	a
²³⁹ U E: 1/2[620]	0.688 0.695	0.716 0.701	0.735 0.737	- 0.744	- 0.788	- 0.796	- 0.846	- 0.855	- 0.910	- 0.919	
²³⁹ U F: 1/2[761]	0.739 0.735	0.746 0.749	0.784 0.780	0.796 0.799	- 0.839	- 0.861	- 0.906	- 0.932	- 0.982	- 1.010	
²³⁹ U G: 3/2[631]	0.726 0.724	0.757 0.760	- 0.809	0.874 0.873	- 0.951	- 1.044	- 1.150	- 1.271	- 1.405	- 1.554	a
²³⁹ U H: 1/2[501]	0.933 0.946	0.962 0.943	0.983 0.980	- 0.976	- 1.021	- 1.017	- 1.067	- 1.063	- 1.118	- 1.113	
²³⁹ U I: 3/2[622]	0.853 0.852	0.888 0.892	0.945 0.941	0.996 0.998	- 1.062	- 1.131	- 1.207	- 1.287	- 1.372	- 1.460	
²³⁹ U K: 7/2[743]	0.293 0.291	- 0.330	0.373 0.376	- 0.432	0.499 0.496	- 0.568	- 0.649	- 0.738	- 0.836	- 0.943	a
²³⁹ Np A: 5/2[642]	0.0 0.0	0.031 0.031	0.071 0.072	0.123 0.121	0.180 0.180	- 0.247	- 0.324	- 0.409	- 0.503	- 0.607	a
²³⁹ Np B: 5/2[523]	0.075 0.075	0.118 0.118	0.173 0.173	0.241 0.241	0.319 0.320	- 0.410	- 0.512	- 0.624	- 0.747	- 0.881	
²³⁹ Np D: 1/2[400]	0.220 0.219	0.258 0.243	- 0.286	- 0.322	0.359 0.377	0.439 0.421	- 0.485	- 0.535	- 0.606	- 0.661	
²³⁹ Np E: 1/2[530]	0.271 0.258	0.261 0.267	0.325 0.316	0.315 0.329	- 0.391	- 0.405	- 0.477	- 0.493	- 0.572	- 0.591	
²³⁹ Np G: 3/2[521]	0.448 0.447	0.483 0.479	0.518 0.524	0.579 0.582	0.657 0.652	- 0.736	- 0.832	- 0.941	- 1.063	- 1.197	a
²³⁹ Np I: 7/2[514]	0.992 0.992	1.049 1.049	1.118 1.118	- 1.198	- 1.289	- 1.391	- 1.503	- 1.625	- 1.756	- 1.895	
²³⁹ Np K: 5/2 ⁻	0.662 0.662	0.695 0.696	0.742 0.741	- 0.795	- 0.860	- 0.934	- 1.018	- 1.113	- 1.217	- 1.331	a
²³⁹ Pu A: 1/2[631]	0.0 0.0	0.008 0.008	0.057 0.057	0.076 0.076	0.164 0.164	0.193 0.193	0.318 0.319	0.358 0.357	0.519 0.520	0.570 0.568	49/2
²³⁹ Pu B: 1/2 ⁻	0.470 0.453	0.492 0.470	0.506 0.519	0.556 0.543	0.583 0.606	0.659 0.635	- 0.708	- 0.741	- 0.822	- 0.858	
²³⁹ Pu D: 5/2[622]	0.285 0.285	0.330 0.330	0.387 0.389	0.462 0.461	- 0.545	- 0.643	- 0.753	- 0.877	- 1.013	- 1.163	a
²³⁹ Pu E: 7/2[743]	0.392 0.391	0.434 0.434	0.487 0.487	- 0.549	0.620 0.620	- 0.701	- 0.791	- 0.891	- 1.001	- 1.120	
²³⁹ Pu F: 7/2[624]	0.512 0.511	0.565 0.566	0.634 0.633	- 0.713	- 0.804	- 0.908	- 1.024	- 1.152	- 1.293	- 1.445	a
²³⁹ Pu G: 1/2[761]	1.017 1.000	0.990 0.992	1.100 1.073	1.038 1.061	- 1.166	1.137 1.152	- 1.272	- 1.256	- 1.391	- 1.373	
²³⁹ Pu H: 1/2[620]	1.214 1.199	1.233 1.213	1.261 1.275	1.311 1.295	1.359 1.375	- 1.399	- 1.492	- 1.519	- 1.622	- 1.652	
²³⁹ Pu K: 3/2[622]	1.261 1.258	1.289 1.293	1.342 1.343	1.409 1.407	- 1.486	- 1.578	- 1.685	- 1.806	- 1.942	- 2.092	a
²³⁹ Pu S: 5/2[633]	3.100 3.099	3.124 3.127	3.156 3.155	- 3.183	- 3.211	- 3.241	- 3.273	- 3.305	- 3.338	- 3.371	
²³⁹ Am A: 5/2[523]	0.0 0.0	0.041 0.041	0.094 0.093	0.156 0.157	- 0.231	- 0.316	- 0.411	- 0.516	- 0.630	- 0.754	
²³⁹ Am B: 5/2[642]	0.187 0.187	0.220 0.220	0.260 0.262	0.317 0.313	0.370 0.372	- 0.438	- 0.512	- 0.593	- 0.681	- 0.775	

A=241

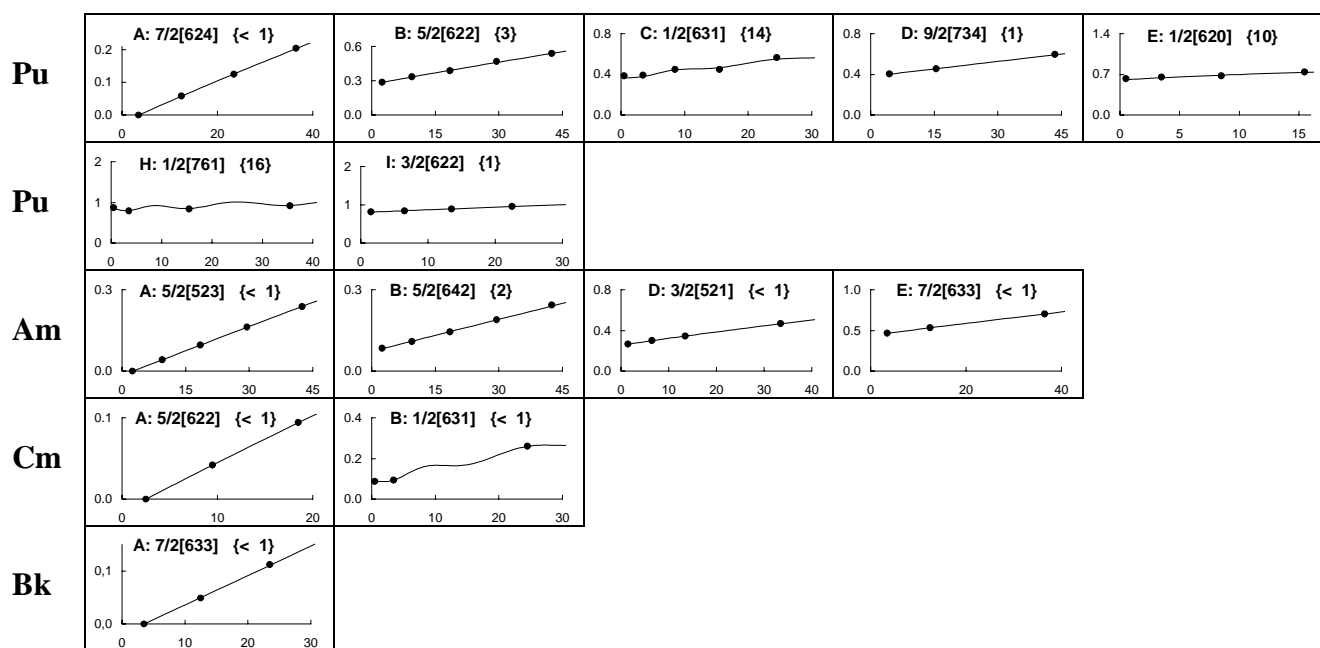
Akovali Y.A. //NDS, 1994, v.72, p.191



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁴¹ Pu	0.0	0.042	0.096	0.161	0.235	-	-	-	-	-	
A: 5/2[622]	0.0	0.042	0.096	0.160	0.236	0.322	0.417	0.522	0.637	0.760	
²⁴¹ Pu	0.162	0.171	0.223	0.243	0.335	-	0.499	-	-	-	
B: 1/2[631]	0.162	0.171	0.223	0.243	0.336	0.367	0.499	0.541	0.710	0.762	
²⁴¹ Pu	0.175	0.232	0.301	0.368	-	-	-	-	-	-	
D: 7/2[624]	0.175	0.233	0.298	0.369	0.446	0.528	0.614	0.705	0.800	0.899	
²⁴¹ Pu	0.755	0.770	0.800	-	0.897	-	-	-	-	-	
F: 1/2[620]	0.750	0.770	0.809	0.838	0.889	0.923	0.982	1.020	1.086	1.128	
²⁴¹ Am	0.0	0.041	0.094	0.158	0.234	-	-	-	-	-	
A: 5/2[523]	0.0	0.041	0.094	0.158	0.234	0.321	0.419	0.528	0.649	0.780	
²⁴¹ Am	0.206	0.235	0.272	0.320	0.380	-	-	-	-	-	
B: 5/2[642]	0.205	0.235	0.274	0.321	0.377	0.442	0.515	0.597	0.688	0.787	a
²⁴¹ Am	0.472	0.504	0.549	-	0.682	-	-	-	-	-	
C: 3/2[521]	0.471	0.504	0.550	0.609	0.681	0.767	0.865	0.977	1.102	1.239	a
²⁴¹ Bk	0.051	0.082	0.128	-	-	-	-	-	-	-	
B: 3/2[521]	0.050	0.086	0.123	0.163	0.205	0.249	0.295	0.343	0.393	0.445	

A=243

Akovali Y.A. //NDS, 1992, v.66, p.897



ROTATIONAL BANDS IN ODD-MASS NUCLEI

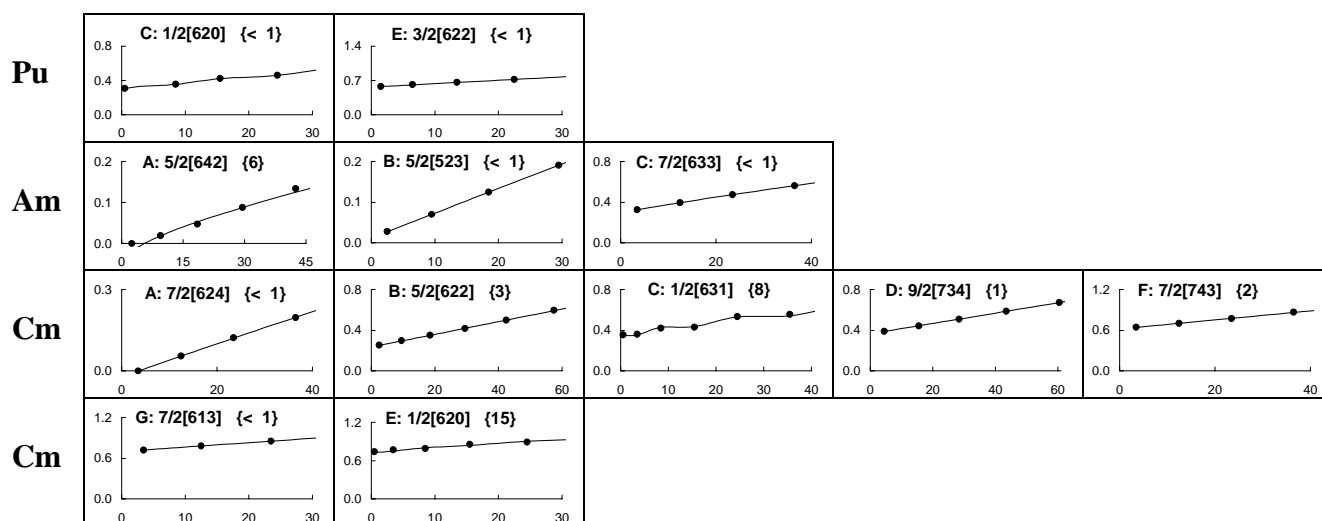
A=243

Akovali Y.A. //NDS, 1992, v.66, p.897

Band	I=K	K+1	K+2	K+3	K+4	K+5	K+6	K+7	K+8	K+9	Comm.
²⁴³ Pu	0.0	0.058	0.125	0.204	-	-	-	-	-	-	
A: 7/2[624]	0.0	0.058	0.126	0.203	0.290	0.384	0.486	0.594	0.710	0.832	
²⁴³ Pu	0.287	0.333	0.388	0.467	0.537	-	-	-	-	-	
B: 5/2[622]	0.287	0.333	0.391	0.460	0.539	0.628	0.725	0.831	0.944	1.064	
²⁴³ Pu	0.384	0.392	0.447	0.450	0.564	-	-	-	-	-	
C: 1/2[631]	0.365	0.379	0.445	0.466	0.551	0.577	0.676	0.704	0.815	0.846	
²⁴³ Pu	0.403	0.454	-	0.595	-	-	-	-	-	-	
D: 9/2[734]	0.402	0.456	0.520	0.594	0.679	0.773	0.876	0.990	1.114	1.247	a
²⁴³ Pu	0.626	0.654	0.677	0.742	-	-	-	-	-	-	
E: 1/2[620]	0.612	0.644	0.688	0.736	0.792	0.849	0.914	0.980	1.052	1.124	
²⁴³ Pu	0.874	0.791	-	0.834	-	0.921	-	-	-	-	
H: 1/2[761]	0.849	0.796	0.925	0.852	1.013	0.927	1.112	1.016	1.220	1.115	
²⁴³ Pu	0.814	0.845	0.896	0.954	-	-	-	-	-	-	
I: 3/2[622]	0.813	0.847	0.894	0.954	1.027	1.113	1.210	1.319	1.439	1.570	
²⁴³ Am	0.0	0.042	0.096	0.162	0.238	-	-	-	-	-	
A: 5/2[523]	0.0	0.042	0.096	0.162	0.239	0.326	0.424	0.533	0.651	0.779	
²⁴³ Am	0.084	0.109	0.144	0.189	0.244	-	-	-	-	-	
B: 5/2[642]	0.083	0.110	0.146	0.189	0.240	0.299	0.366	0.441	0.523	0.614	a
²⁴³ Am	0.266	0.300	0.345	-	0.466	-	-	-	-	-	
D: 3/2[521]	0.266	0.300	0.345	0.401	0.466	0.539	0.621	0.709	0.803	0.904	
²⁴³ Am	0.466	0.533	-	0.704	-	-	-	-	-	-	
E: 7/2[633]	0.466	0.533	0.612	0.704	0.807	0.921	1.044	1.177	1.318	1.469	
²⁴³ Cm	0.0	0.042	0.094	-	-	-	-	-	-	-	
A: 5/2[622]	0.0	0.042	0.094	0.154	0.221	0.296	0.376	0.463	0.555	0.652	
²⁴³ Cm	0.087	0.094	-	-	0.260	-	-	-	-	-	
B: 1/2[631]	0.087	0.094	0.162	0.172	0.260	0.271	0.374	0.387	0.501	0.515	
²⁴³ Bk	0.0	0.049	0.112	-	-	-	-	-	-	-	x
A: 7/2[633]	0.0	0.050	0.111	0.183	0.266	0.360	0.465	0.582	0.709	0.848	a

A=245

Akovali Y.A. //NDS, 1992, v.67, p.153



ROTATIONAL BANDS IN ODD-MASS NUCLEI

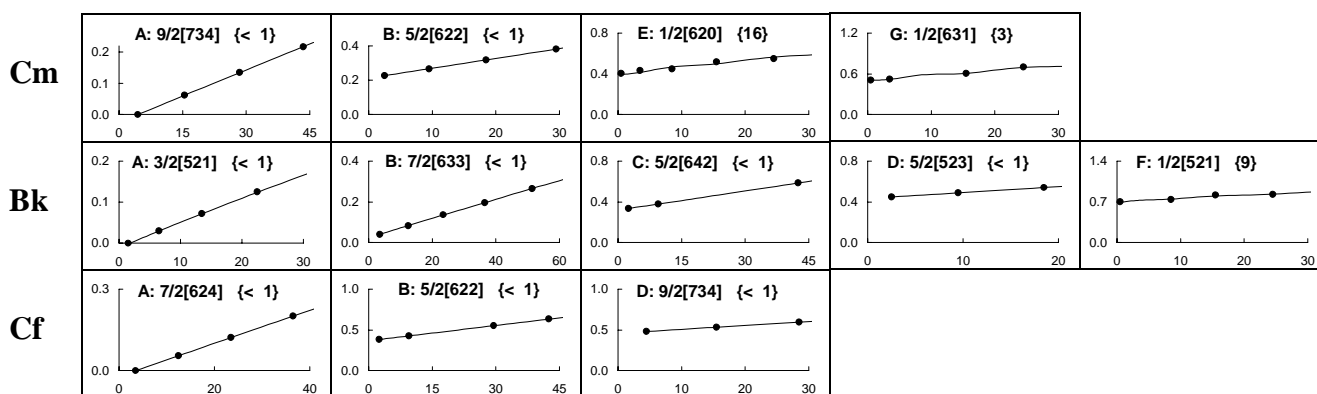
A=245

Akovali Y.A. //NDS, 1992, v.67, p.153

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁴⁵ Pu	0.306	-	0.355	0.423	0.459	-	-	-	-	-	
C: 1/2[620]	0.306	0.335	0.355	0.423	0.459	0.566	0.618	0.763	0.831	1.016	
²⁴⁵ Pu	0.575	0.613	0.660	0.723	-	-	-	-	-	-	
E: 3/2[622]	0.575	0.612	0.661	0.723	0.795	0.877	0.969	1.069	1.178	1.293	
²⁴⁵ Am	0.0	0.019	0.047	0.088	0.134	-	-	-	-	-	
A: 5/2[642]	-0.016	0.019	0.053	0.088	0.125	0.163	0.203	0.244	0.286	0.330	
²⁴⁵ Am	0.028	0.070	0.125	0.191	-	-	-	-	-	-	
B: 5/2[523]	0.028	0.070	0.125	0.191	0.268	0.357	0.457	0.567	0.688	0.819	
²⁴⁵ Am	0.327	0.396	0.475	0.563	-	-	-	-	-	-	
C: 7/2[633]	0.327	0.396	0.475	0.563	0.660	0.764	0.875	0.992	1.116	1.246	
²⁴⁵ Cm	0.0	0.055	0.122	0.197	-	-	-	-	-	-	
A: 7/2[624]	0.0	0.055	0.121	0.198	0.285	0.381	0.487	0.602	0.724	0.855	
²⁴⁵ Cm	0.253	0.296	0.351	0.417	0.498	0.598	-	-	-	-	
B: 5/2[622]	0.252	0.295	0.351	0.419	0.500	0.593	0.698	0.816	0.946	1.088	a
²⁴⁵ Cm	0.356	0.361	0.419	0.431	0.532	0.555	-	-	-	-	
C: 1/2[631]	0.349	0.355	0.428	0.437	0.531	0.542	0.652	0.665	0.787	0.801	
²⁴⁵ Cm	0.388	0.443	0.509	0.588	0.672	-	-	-	-	-	
D: 9/2[734]	0.388	0.444	0.510	0.586	0.673	0.769	0.876	0.993	1.120	1.258	a
²⁴⁵ Cm	0.644	0.702	0.773	0.866	-	-	-	-	-	-	
F: 7/2[743]	0.642	0.703	0.776	0.863	0.963	1.077	1.204	1.345	1.499	1.666	a
²⁴⁵ Cm	0.722	0.782	0.853	-	-	-	-	-	-	-	
G: 7/2[613]	0.722	0.782	0.853	0.934	1.024	1.122	1.228	1.342	1.462	1.589	
²⁴⁵ Cm	0.741	0.769	0.791	0.856	0.891	-	-	-	-	-	
E: 1/2[620]	0.728	0.752	0.804	0.840	0.906	0.949	1.027	1.076	1.162	1.216	

A=247

Akovali Y.A. //NDS, 1992, v.66, p.505



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁴⁷ Cm	0.0	0.062	0.135	0.217	-	-	-	-	-	-	
A: 9/2[734]	0.0	0.062	0.134	0.218	0.311	0.415	0.530	0.654	0.787	0.931	
²⁴⁷ Cm	0.227	0.266	0.318	0.381	-	-	-	-	-	-	
B: 5/2[622]	0.227	0.267	0.318	0.381	0.455	0.540	0.637	0.746	0.866	0.997	a
²⁴⁷ Cm	0.404	0.433	0.449	0.518	0.550	-	-	-	-	-	
E: 1/2[620]	0.393	0.415	0.467	0.499	0.566	0.605	0.682	0.726	0.812	0.861	
²⁴⁷ Cm	0.506	0.520	-	0.604	0.699	-	-	-	-	-	
G: 1/2[631]	0.504	0.519	0.586	0.608	0.695	0.723	0.825	0.855	0.969	1.003	

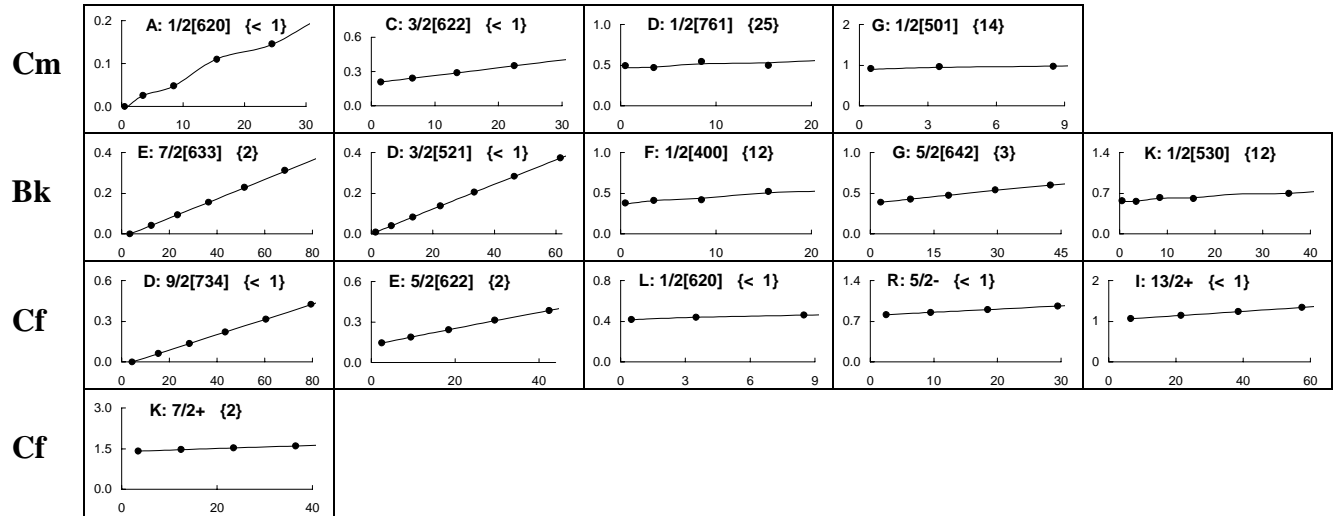
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=247 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁴⁷ Bk	0.0	0.030	0.072	0.125	-	-	-	-	-	-	
A: 3/2[521]	-0.002	0.030	0.072	0.124	0.185	0.253	0.328	0.410	0.497	0.590	
²⁴⁷ Bk	0.041	0.083	0.137	0.196	0.265	-	-	-	-	-	
B: 7/2[633]	0.041	0.084	0.136	0.196	0.266	0.343	0.429	0.522	0.623	0.731	
²⁴⁷ Bk	0.335	0.378	-	-	0.587	-	-	-	-	-	
C: 5/2[642]	0.335	0.379	0.435	0.505	0.587	0.681	0.788	0.908	1.041	1.186	a
²⁴⁷ Bk	0.448	0.489	0.541	-	-	-	-	-	-	-	
D: 5/2[523]	0.448	0.489	0.541	0.601	0.670	0.746	0.829	0.918	1.013	1.114	
²⁴⁷ Bk	0.704	-	0.743	0.815	0.828	-	-	-	-	-	
F: 1/2[521]	0.695	0.727	0.749	0.802	0.833	0.898	0.935	1.010	1.051	1.134	
²⁴⁷ Cf	0.0	0.055	0.122	0.201	-	-	-	-	-	-	
A: 7/2[624]	0.0	0.055	0.122	0.201	0.292	0.394	0.508	0.633	0.770	0.917	
²⁴⁷ Cf	0.383	0.427	-	0.551	0.634	-	-	-	-	-	
B: 5/2[622]	0.383	0.427	0.483	0.552	0.633	0.727	0.833	0.952	1.083	1.227	a
²⁴⁷ Cf	0.480	0.532	0.595	-	-	-	-	-	-	-	
D: 9/2[734]	0.480	0.533	0.595	0.666	0.747	0.838	0.938	1.048	1.167	1.296	a

A=249

Artna-Cohen A. //NDS, 1999, v.88, p.155



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁴⁹ Cm	0.0	0.026	0.048	0.110	0.146	-	-	-	-	-	
A: 1/2[620]	-0.006	0.026	0.048	0.111	0.145	0.228	0.270	0.370	0.418	0.531	
²⁴⁹ Cm	0.208	0.242	0.289	0.350	-	-	-	-	-	-	
C: 3/2[622]	0.208	0.242	0.289	0.350	0.424	0.512	0.613	0.727	0.855	0.996	
²⁴⁹ Cm	0.495	0.470	0.547	0.498	-	-	-	-	-	-	
D: 1/2[761]	0.470	0.478	0.518	0.530	0.580	0.594	0.652	0.668	0.731	0.749	
²⁴⁹ Cm	0.918	0.963	0.971	-	-	-	-	-	-	-	
G: 1/2[501]	0.902	0.948	0.981	1.048	1.090	1.171	1.220	1.312	1.366	1.466	
²⁴⁹ Bk	0.0	0.042	0.094	0.156	0.229	0.313	-	-	-	-	
E: 7/2[633]	0.0	0.042	0.095	0.156	0.228	0.308	0.399	0.498	0.608	0.727	a
²⁴⁹ Bk	0.009	0.040	0.083	0.138	0.205	0.283	0.373	-	-	-	
D: 3/2[521]	0.009	0.040	0.083	0.138	0.205	0.283	0.373	0.474	0.586	0.709	

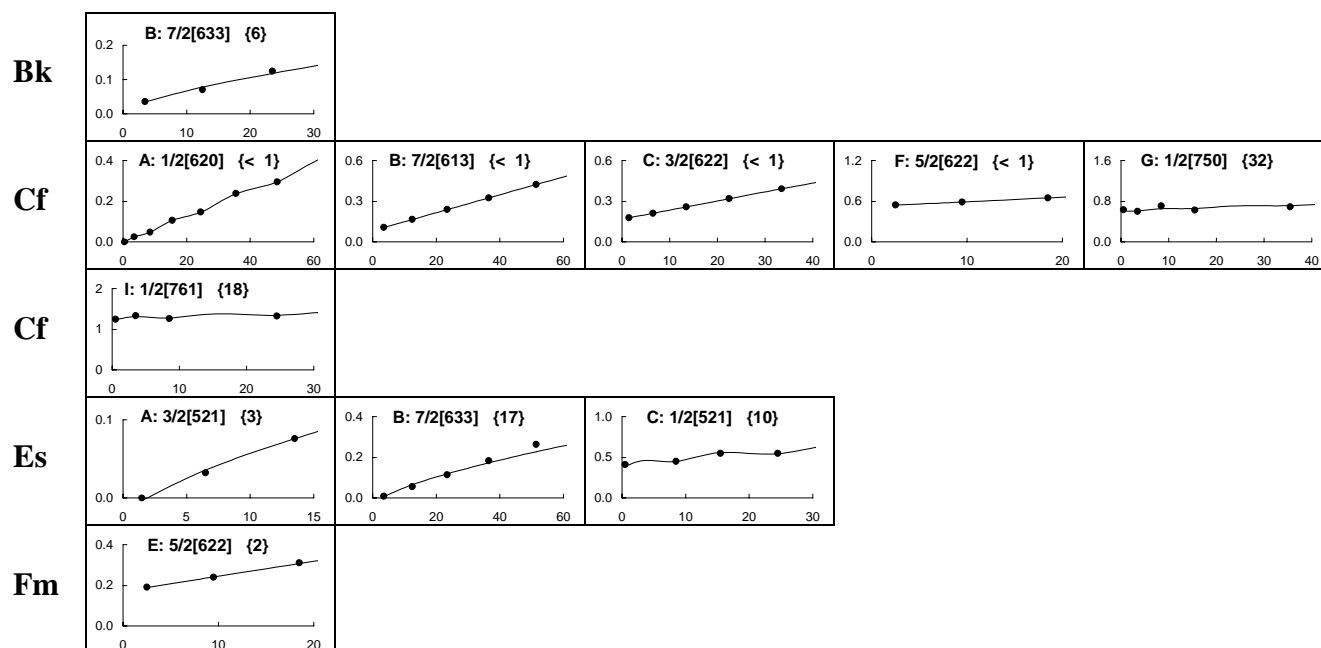
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=249 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁴⁹ Bk F: 1/2[400]	0.378 0.369	0.411 0.410	0.421 0.439	0.519 0.505	- 0.543	- 0.624	- 0.670	- 0.763	- 0.815	- 0.918	
²⁴⁹ Bk G: 5/2[642]	0.389 0.389	0.429 0.429	0.475 0.478	0.542 0.536	0.598 0.600	- 0.672	- 0.749	- 0.831	- 0.919	- 1.012	
²⁴⁹ Bk K: 1/2[530]	0.569 0.557	0.558 0.565	0.625 0.613	0.607 0.625	- 0.686	0.700 0.700	- 0.770	- 0.786	- 0.864	- 0.882	
²⁴⁹ Cf D: 9/2[734]	0.0 0.0	0.062 0.062	0.136 0.136	0.220 0.221	0.315 0.316	0.425 0.423	- 0.541	- 0.670	- 0.809	- 0.959	
²⁴⁹ Cf E: 5/2[622]	0.145 0.145	0.188 0.189	0.243 0.244	0.315 0.311	0.384 0.387	- 0.472	- 0.566	- 0.668	- 0.778	- 0.895	
²⁴⁹ Cf L: 1/2[620]	0.417 0.417	0.440 0.439	0.460 0.461	- 0.490	- 0.516	- 0.550	- 0.580	- 0.618	- 0.651	- 0.693	
²⁴⁹ Cf L: 1/2[620]	0.813 0.813	0.852 0.852	0.902 0.902	0.962 0.962	- 1.031	- 1.110	- 1.197	- 1.292	- 1.395	- 1.505	
²⁴⁹ Cf I: 13/2 ⁺	1.063 1.063	1.145 1.144	1.236 1.237	1.340 1.340	- 1.453	- 1.578	- 1.714	- 1.860	- 2.017	- 2.185	
²⁴⁹ Cf K: 7/2 ⁺	1.415 1.414	1.463 1.465	1.530 1.529	1.603 1.603	- 1.689	- 1.787	- 1.896	- 2.016	- 2.148	- 2.291	a

A=251

Artna-Cohen A. //NDS, 1999, v.88, p.155



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁵¹ Bk B: 7/2[633]	0.036 0.035	0.070 0.078	0.124 0.118	- 0.159	- 0.200	- 0.243	- 0.286	- 0.331	- 0.377	- 0.424	
²⁵¹ Cf A: 1/2[620]	0.0 0.0	0.025 0.025	0.048 0.048	0.106 0.106	0.147 0.147	0.238 0.237	0.296 0.296	- 0.418	- 0.495	- 0.648	
²⁵¹ Cf B: 7/2[613]	0.106 0.106	0.166 0.166	0.239 0.239	0.325 0.325	0.424 0.424	- 0.535	- 0.659	- 0.795	- 0.943	- 1.103	

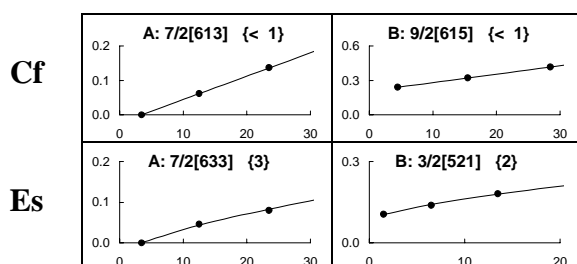
ROTATIONAL BANDS IN ODD-MASS NUCLEI

A=251 (end of the table)

Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁵¹ Cf	0.178	0.212	0.258	0.319	0.392	-	-	-	-	-	
C: 3/2[622]	0.178	0.212	0.259	0.319	0.392	0.478	0.576	0.686	0.807	0.940	
²⁵¹ Cf	0.544	0.590	0.649	-	-	-	-	-	-	-	
F: 5/2[622]	0.544	0.590	0.649	0.720	0.803	0.897	1.003	1.118	1.244	1.379	
²⁵¹ Cf	0.633	0.600	0.708	0.626	-	0.691	-	-	-	-	
G: 1/2[750]	0.610	0.613	0.654	0.658	0.710	0.715	0.774	0.780	0.845	0.852	
²⁵¹ Cf	1.250	1.335	1.262	-	1.326	-	-	-	-	-	
I: 1/2[761]	1.240	1.312	1.282	1.381	1.343	1.459	1.416	1.547	1.499	1.642	
²⁵¹ Es	0.0	0.032	0.076	-	-	-	-	-	-	-	
A: 3/2[521]	-0.003	0.036	0.076	0.119	0.164	0.212	0.263	0.315	0.370	0.427	
²⁵¹ Es	0.008	0.056	0.114	0.183	0.263	-	-	-	-	-	
B: 7/2[633]	0.008	0.066	0.119	0.173	0.228	0.284	0.342	0.402	0.463	0.526	
²⁵¹ Es	0.411	-	0.452	0.548	0.548	-	-	-	-	-	
C: 1/2[521]	0.394	0.461	0.450	0.559	0.545	0.680	0.663	0.819	0.800	0.972	
²⁵¹ Fm	0.191	0.239	0.310	-	-	-	-	-	-	-	
E: 5/2[622]	0.190	0.242	0.308	0.389	0.485	0.596	0.721	0.862	1.017	1.186	a

A=253

Artna-Cohen A. //NDS, 1999, v.88, p.155



Band	$I=K$	$K+1$	$K+2$	$K+3$	$K+4$	$K+5$	$K+6$	$K+7$	$K+8$	$K+9$	Comm.
²⁵³ Cf	0.0	0.062	0.137	-	-	-	-	-	-	-	
A: 7/2[613]	0.0	0.062	0.136	0.224	0.325	0.437	0.562	0.698	0.845	1.003	
²⁵³ Cf	0.241	0.321	0.417	-	-	-	-	-	-	-	
B: 9/2[615]	0.241	0.321	0.417	0.527	0.651	0.790	0.944	1.113	1.296	1.494	a
²⁵³ Es	0.0	0.046	0.080	-	-	-	-	-	-	-	
A: 7/2[633]	0.001	0.044	0.083	0.123	0.164	0.206	0.248	0.292	0.337	0.383	
²⁵³ Es	0.106	0.139	0.181	-	-	-	-	-	-	-	
B: 3/2[521]	0.105	0.142	0.180	0.220	0.263	0.309	0.357	0.406	0.458	0.511	

A≥255

Artna-Cohen A. //NDS, 1999, v.88, p.155

Firestone R.B., Gilat J. //NDS, 2000, v.90, p.391

Rotational bands are not present.

Nuclear Data Section
International Atomic Energy Agency
P.O. Box 100
A-1400 Vienna
Austria

e-mail: services@iaeand.iaea.org
fax: (43-1) 26007
cable: INATOM VIENNA
telex: 1-12645
telephone: (43-1) 2600-21710

Online: TELNET or FTP: iaeand.iaea.org
username: IAEANDS for interactive Nuclear Data Information System
usernames: ANONYMOUS for FTP file transfer;
FENDL2 for FTP file transfer of FENDL-2.0;
RIPL for FTP file transfer of RIPL;
NDSOVL for FTP access to files saved in "NDIS" Telnet session.

Web: <http://www-nds.iaea.org>
