

ACTIVITY of CAJAD
for the
IAEA Technical Meeting:
Vienna, Austria, 08-10 October 2007
S.Babykina
Nuclear Structure and Reaction Data Center,
Kurchatov's Institute,
Moscow

Our **Exfor activity** had two main direction-

1. **Compilation A -Library.**

After last meeting 2006 we prepared **A062 Trans files**. This Trans files contains astrophysical data, fission data, monitor reaction data. The files include new entries and some corrected old entries according new rules .

2. **Team-work** with NEA DATA-BANK.

During 2006-2007 years near 100 Entries were prepared and included in O-library. These Entries contain mainly differential data for elastic and inelastic scattering and production cross section radioactive and stable isotopes, data for material analysis by charged beams.

3. **Checking Codes.**

We use to check our TRANS and ENTRIES two checking codes-

- our checking code
- CHEX

It is very useful, because the codes are not similar and different errors are finding.

**The European Physical Journal A - Hadrons and Nuclei Publisher:
Springer Berlin / Heidelberg ISSN:)
Issue: Volume 26, Number 2 , p.271-275-for CAJAD**

Mass distribution studies in the $^{19}\text{F} + ^{197}\text{Au}$ reaction

R. Tripathi¹ and A. Goswami¹

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status</u>	<u>an</u>
3INDTRM	F-19	96,100-MEV	CAJAD	TABLE		A0741

volume 26, Number 2 , p.301-305-FOR CAJAD+NEADB

First direct measurement of the total cross-section of $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$

D. Schürmann¹, A. Di Leva¹, L. Gialanella², D. Rogalla³, F. Strieder¹ and other⁴, A. D'Onofrio³, G. Imbriani², R. Kunz¹, C. Lubritto³, A. Ordine², V. Roca², C. Rolfs¹, M. Romano², F. Schümman¹, F. Terrasi³ and H.-P. Trautvetter¹

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status</u>	<u>an</u>
2GERBOC	A	1.9-3.2-MEV	CAJAD +NEADB	TABLE		O1308

Issue: Volume 27, Number 3, Pages: 301 - 312 –FOR NEADB+CAJAD

Gamma-ray spectroscopy of the nucleus ^{139}Ce

D. Bucurescu¹, G. Căta-Danil¹, I. Căta-Danil¹, M. Ivaşcu¹, N. Mărginean¹, R. Mărginean¹, L. C. Mihăilescu¹, C. Rus

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status</u>	<u>an</u>
3RUMRUM	P	5-6-MEV	CAJAD +NEADB	TABLE		O1401
		C-12 50.5-MEV				

Issue: Volume 27, Supplement 1, page 141-144 Date: March 2006- For ATOMKI

$^{106, 108}\text{Cd}(\text{p},\gamma)^{107, 109}\text{In}$ cross-sections for the astrophysical p-process
Gy. Gyürky¹, G. G. Kiss^{1, 2}, Z. Elekes¹, Zs. Fülöp¹ and E. Somorjai¹

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status</u>	<u>an</u>
3HUNDEB	P	2.4-4.8-MEV	ATOMKI	graph		

Issue: Volume 27, Supplement 1, page 145-148 Date: March 2006- For NNDC

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status</u>	<u>an</u>
1USANOT	A	8-12MEV	NNDC	graph		

Issue: Volume 27, Supplement 1, page 153-158 Date: March 2006- For CDFE

Photonuclear reaction data and γ -ray sources for astrophysics

H. Utsunomiya¹, Goko¹, H. Toyokawa², H. Ohgaki³, K. Soutome⁴, H. Yonehara⁴, S. Goriely⁵, P. Mohr⁶ and Zs. Fülöp⁷

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status</u>	<u>an</u>
2JPNKTO	G	10-MEV	CDFE	graph		

Issue: Volume 27, Supplement 1, page 187-192 Date: March 2006- For ATOMKI

Study of the $^{106}\text{Cd}(\alpha,\alpha)^{106}\text{Cd}$ scattering at energies relevant to the p-process

G. G. Kiss^{1,2}, Zs. Fülöp¹, Gy. Gyürky¹, Z. Máté¹, E. Somorjai¹, D. Galaviz³, A. Kretschmer³, K. Sonnabend³ and A. Zilges³

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
3HUNDEB	A	15.5-19-MEV	ATOMKI	graph	

**Issue: Volume 27, Supplement 1, page 233-236 Date: March 2006-
For JCPRG**

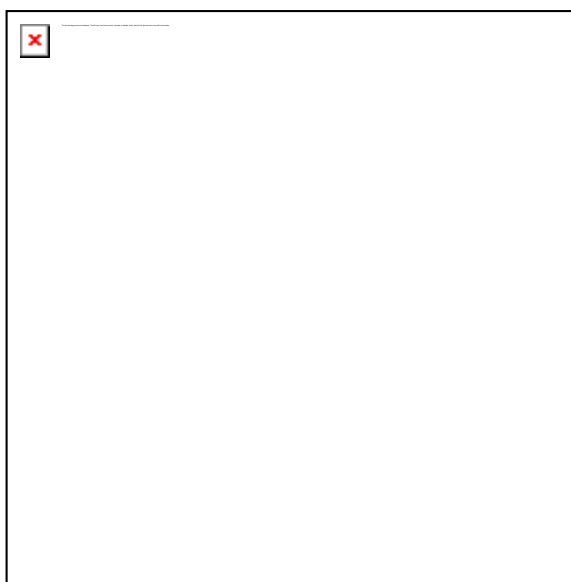
Study of the $^{26}\text{Si}(p,\gamma)^{27}\text{P}$ reaction through Coulomb dissociation of ^{27}P

Y. Togano¹, T. Gomi¹, T. Motobayashi², Y. Ando¹, N. Aoi², H. Baba¹, K. Demichi¹, Z. Elekes^{2,3}, N. Fukuda², Zs. Fülöp³, U. Futakami¹, H. Hasegawa¹, Y. Higurashi², K. Ieki¹, N. Imai², M. Ishihara², K. Ishikawa⁴, N. Iwasa⁵, H. Iwasaki⁶, S. Kanno¹, Y. Kondo⁴, T. Kubo², S. Kubono⁷, M. Kunibu¹, K. Kurita¹, Y. U. Matsuyama¹, S. Michimasa⁷, T. Minemura², M. Miura⁴, H. Murakami¹, T. Nakamura⁴, M. Notani⁷, S. Ota⁸, A. Saito¹, H. Sakurai⁶, M. Serata¹, S. Shimoura⁷, T. Sugimoto⁴, E. Takeshita¹, S. Takeuchi², K. Ue⁶, K. Yamada¹, Y. Yanagisawa², K. Yoneda² and A. Yoshida²

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
2JPNIPC	P	1439-MEV	JCPRG	graph	

**Issue: Volume 28, NUMBER 2 , page 193-203, 2006-
For NEADB+CAJAD**

Excitation functions of evaporation residues in the interaction of ^{16}O with ^{103}Rh at incident energies up to 400 MeV



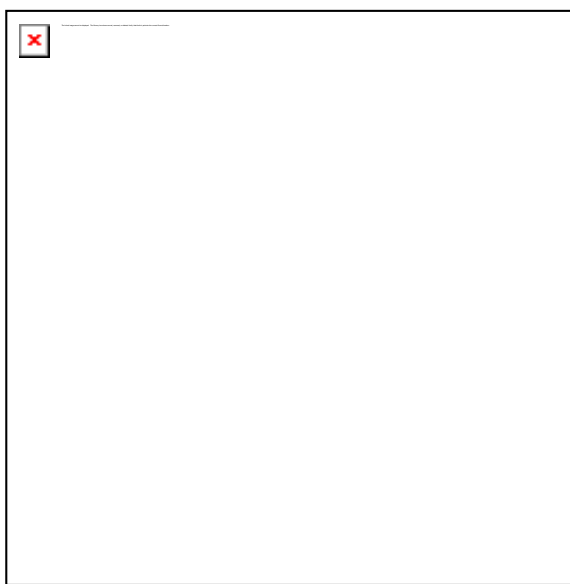
E. Z. Buthelezi¹, F. Cerutti², E. Gadioli²,
G. F. Steyn¹, A. Pepe², S. H. Connell³ and A. A. Cowley^{1,4}

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
3SAFITH	O--16	40-400MEV	NDB+CAJAD	GRAPH	

Issue: Volume 28, NUMBER 3 , page 295-299, 2006-

For NEADB+CAJAD

Scattering of ^{11}Be halo nucleus from ^{209}Bi at the Coulomb barrier



M. Mazzocco¹, C. Signorini¹, M. Romoli², A. De Francesco², M. Di Pietro², E. Vardaci², K. Yoshida³, A. Yoshida³, R. Bonetti⁴, A. De Rosa², T. Glodariu^{1,5}, A. Guglielmetti⁴

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
2ITYPAD	BE-11	40-MEV	NDB+CAJAD	TABLE	

**Physics of Atomic Nuclei –
december 2005 -- Volume 68, Issue 12, pp. 1957-1967 ---for
CAJAD**

**Investigation of the Mechanism of the Reaction $^{10}\text{B}(d, p\gamma)^{11}\text{B}$
at $E_d = 15.3$ MeV by the Method of Angular $p\gamma$ Correlations**

L. I. Galanina, N. S. Zelenskaya, A. V. Ignatenko,

V. M. Lebedev, N. V. Orlova, O. I. Serikov, and A. V. Spassky*

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
4RUSMOS	D	15.3-mev	CAJAD	graph	in process

september 2005 -- Volume 68, Issue 09, pp. 1417-1420 ---for
CDFE

**Independent Yields of Kr and Xe Fragments
in the Photofission of ^{237}Np and ^{243}Am Odd Nuclei**

Yu. P. Gangrsky*, V. I. Zhemelik, G. V. Mishinsky, and Yu. E. Penionzhkevich

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
4ZZZDUB	G	25	CDFE	table	

january 2006 -- Volume 69, Issue 2, pp. 189-196 ---for
CAJAD

**Differential Analyzing Power in pp -Scattering on a ^{28}Si Nucleus
in the Case of the Excitation of High-Spin Particle-Hole States**

A. V. Plavko¹⁾ and M. S. Onegin²⁾*

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
4RUSLIN	P		CAJAD	graph	in process

january 2006 -- Volume 69, Issue 3, pp. 452-459 ---for
CAJAD

**Polarization in Quasielastic (p , $2p$ $2p$) Scattering on a ^4He Nucleus at
1 GeV**

O. V. Miklukho, G.M. Amalsky, V. A. Andreev, S. L. Belostotsky and other

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
4RUSLIN	P	1-GeV	CAJAD	table+graph	in process

august 2006 -- Volume 69, Issue 8, pp. 1399

-- For JCPRG

**Evidence of Complete Fusion in the Sub barrier
 $^{16}\text{O} + ^{238}\text{U}$ Reaction***

K. Nishio, H. Ikezoe, M. Asai, K. Tsukada, S. Mitsuoka,
K. Tsuruta, K. Satou, C. J. Lin

<u>Lab</u>	<u>inc.proj.</u>	<u>energy</u>	<u>center</u>	<u>data form</u>	<u>status an</u>
2JPNJPN	O-16		JCPRG		