**Nuclear Data Section**

**International Atomic Energy Agency**

**P.O.Box 100, A-1400 Vienna, Austria**

**Memo CP-D/1086**

**Date:** 30 June 2023

**To:** Distribution

**From:** N. Otsuka

**Subject: Dictionary transmission 9128**

Dictionary transmission 9128 is available in three formats (Trans, Archive and Backup) from the NDS open area: [http://nds.iaea.org/nrdc/ndsx4/trans/dicts/](http://nds.iaea.org/nrdc/ndsx4/trans/dictionaries/). These dictionaries in zipped form (dicts-2023-06-30.zip) are also available: <http://nds.iaea.org/exfor-master/backup/?C=M;O=D>.

The same update made with the new procedure presented in the NRDC 2023 meeting is available as transmission 9928 on the NDS open area as a trial dictionary for your testing. I am planning to move to this new procedure in 2024, and your feedback on the trial dictionary is highly appreciated.

All memos submitted no later than 23 May (for dictionary 1, 2, 4, 16, 24-25, 30-35, 37, 236) or 26 June (for other dictionaries) are considered in this update.

Dictionaries 45 and 47 are now renamed to “CINDA quantities” and “Old CINDA quantities” as agreed in the NRDC 2023 meeting. See WP2023-11 (=CP-D/1081).

Dictionary 227 was created from NUBASE2020 with the new format as agreed in the NRDC 2023 meeting. See WP2023-09(=CP-D/1067).

All changes are summarized below. “Status” gives alteration flags and status codes defined in EXFOR/CINDA Dictionary Manual. These are also listed in the “EXCHANGE” file in the zipped file.

A new quantity code SEQ,DA/DA/DE,N/T/RSD was introduced in C0806.004 and 005 to replace SEQ,DA/DA/DE,T/N/RSD when they were transmitted in TRANS.C216 following the proposed approved in the NRDC 2021 meeting (See WP2021-10=CP-D/1014). I cannot find a memo proposing this new quantity code, but I believe we accept it.

**Dictionary 236 (Quantities)**

SEQ,DA/DA/DE,N/T/RSD (Triple diffential cross sections for angles of neutron and triton and energy of residual nucleus specified by sequence of outgoing particles)

Additional changes introduced in this memo are summarized below:

**Dictionary 2 (Information identifiers)**

CMPD-QUANT (*Delete*. Not in use.)

GEOMETRY (*Delete*. Not in use.)

ISO-QUANT (*Delete*. Not in use.)

NUC-QUANT (*Delete*. Not in use.)

RESID-NUC (*Delete*. Not in use.)

TABLE-NR (*Delete*. Not in use.)

**Dictionary 3 (Institutes)**

3CHPBJG (*Delete*. Not in use.)

3CHPCHP (*Delete*. Not in use.)

3CHPFUD (*Delete*. Not in use.)

3CHPIHP (*Delete*. Not in use.)

3CHPIMP (*Delete*. Not in use.)

3CHPZHN (*Delete*. Not in use.)

**Dictionary 6 (Reports)**

AIF- (Expansion “Anales del Instituto de Fisica” added)

IBJ- (Expansion “Inst.Badan Jadr.(Nucl.Res.),Swierk+Warsaw,Repts” added)

IFJ- (Expansion “Inst. Fiz. Jadr. (Nucl.Phys.), Krakow Reports” added)

INDC(US)- (Expansion “U.S. report to the I.N.D.C.” added)

KUR- (Expansion “Inst. Atomnoy Energii, Kurchatov Reports” added)

NPD- (Expansion “Pakistan Inst.Nuc.Sci.Tech.,Nucl.Phys.Div.Repts” added)

OAWS- (Expansion “Oesterr.Akad.Wiss.,Math-Naturw.Kl.,Sitzungsber.” added)

**Dictionary 7 (Conferences)**

84FUJI (*Delete.* Not in use.)

2016KOLKAT 61st DAE-BRSn Symposium of Nuclear Physics, 5-9, December 2016

**Dictionary 47 (Old CINDA quantities)**

NU (Illegal characters after the Flag field “if (Energy=Spon) -> 0,f” were removed.)

**Dictionary 213 (Reaction types)**

CST (“or thickness” added to the expansion)

**Dictionary 236 (Quantities)**

SEQ,DA/DA/DE,T/N/RSD (*Delete*. Not in use.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dict.** | **Status** | **Code** | **Expansion** | **Remark** |
| 002 | DOBS | CMPD-QUANT | Quantity given | This memo |
| 002 | DOBS | GEOMETRY | Geometry | This memo |
| 002 | DOBS | ISO-QUANT | Quantity given | This memo |
| 002 | DOBS | NUC-QUANT | Quantity given | This memo |
| 002 | DOBS | RESID-NUC | Product nucleus | This memo |
| 002 | DOBS | TABLE-NR | Table number | This memo |
| 003 | MTRA | 1USACLU | University of Colorado, Boulder, CO | CP-D/1080 |
| 003 | ATRA | 1USACMG | Central Michigan University, Mt.Pleasant, MI | CP-D/1080 |
| 003 | MTRA | 2BLGMOL | SCK CEN (Belgian Nuclear Research Centre), Mol | CP-D/1080 |
| 003 | MTRA | 2GERJUL | Forschungszentrum Juelich, Juelich | CP-D/1080 |
| 003 | MTRA | 2GERKLN | Universitaet zu Koeln, Koeln | CP-D/1080 |
| 003 | MTRA | 2GERPTB | Physikalisch-Technische Bundesanstalt, Braunschweig | CP-D/1080 |
| 003 | MTRA | 2GERTHB | Technische Universitaet Braunschweig | CP-D/1080 |
| 003 | MTRA | 2GERTHD | Technische Universitaet Darmstadt | CP-D/1080 |
| 003 | MTRA | 2GRCTUA | National Technical Univ. of Athens, Athens | CP-D/1080 |
| 003 | MTRA | 2ITYCAG | Universita degli Studi di Cagliari + INFN Cagliari | CP-D/1080 |
| 003 | MTRA | 2ITYCAM | Universita degli Studi di Camerino, Camerino | CP-D/1080 |
| 003 | MTRA | 2ITYCIS | Centro Informazioni Studi ed Esperienze (CISE), Milan | CP-D/1080 |
| 003 | MTRA | 2ITYFRA | INFN Laboratori Nazionali di Frascati, Frascati | CP-D/1080 |
| 003 | MTRA | 2ITYGVA | Universita degli Studi di Genova + INFN Genova | CP-D/1080 |
| 003 | MTRA | 2ITYLEC | Universita degli Studi Lecce + INFN Lecce | CP-D/1080 |
| 003 | MTRA | 2ITYLGS | LINFN Laboratori Nazionali del Gran Sasso, Assergi | CP-D/1080 |
| 003 | MTRA | 2ITYMES | Universita degli Studi di Messina, Messina | CP-D/1080 |
| 003 | MTRA | 2ITYPAV | Universita degli Studi di Pavia + INFN Pavia | CP-D/1080 |
| 003 | MTRA | 2ITYUBO | Universita di Bologna + INFN Bologna | CP-D/1080 |
| 003 | ATRA | 2ITYUPG | Universita degli Studi di Perugia + INFN Perugia | CP-D/1080 |
| 003 | DOBS | 2JAPFE | Fuji Electric | CP-D/1080 |
| 003 | DOBS | 2JAPHIR | Hiroshima, University of Hiroshima | CP-D/1080 |
| 003 | DOBS | 2JAPHOS | Hosei University, Tokyo | CP-D/1080 |
| 003 | DOBS | 2JAPHYO | Hyogo Agricult.Univ., Sasayama | CP-D/1080 |
| 003 | DOBS | 2JAPISS | Inst.of Solid State Physics, Univ. of Tokyo | CP-D/1080 |
| 003 | DOBS | 2JAPJAP | Japan | CP-D/1080 |
| 003 | DOBS | 2JAPJCL | Cyclotron Lab., Inst. of Phys.+ Chem. Res., Saitama | CP-D/1080 |
| 003 | DOBS | 2JAPJEL | Elect.Pow.Dev.Corp., AED, Tokyo | CP-D/1080 |
| 003 | DOBS | 2JAPKON | Konan Univ., Kobe | CP-D/1080 |
| 003 | DOBS | 2JAPKYU | Kyushu Univ., Dept.of Nucl.Eng., Fukuoka | CP-D/1080 |
| 003 | DOBS | 2JAPNAG | Univ.of Nagoya | CP-D/1080 |
| 003 | DOBS | 2JAPNIG | Toshiba Corporation | CP-D/1080 |
| 003 | DOBS | 2JAPNII | Niigata Univ., Niigata | CP-D/1080 |
| 003 | DOBS | 2JAPOSA | Osaka Univ., Osaka | CP-D/1080 |
| 003 | DOBS | 2JAPOSP | Radiation Centre of Osaka Prefecture, Sakai, Osaka | CP-D/1080 |
| 003 | DOBS | 2JAPPNC | Power Reactor and Nuclear Fuel Devel. Corp., Tokai | CP-D/1080 |
| 003 | DOBS | 2JAPSAE | Sumitomo Atomic Energy Industries | CP-D/1080 |
| 003 | DOBS | 2JAPSHR | Ship Research Inst., Ministry of Transport, Japan | CP-D/1080 |
| 003 | DOBS | 2JAPTSU | Univ. of Tsukuba, Ibaraki | CP-D/1080 |
| 003 | DOBS | 2JAPWDA | Waseda Univ., Tokyo | CP-D/1080 |
| 003 | DOBS | 2JAPYAM | Yamanashi Univ., Kofu | CP-D/1080 |
| 003 | DOBS | 2JAPYOK | Rikkyo (St.Paul) Univ., Yokosuka and Tokyo | CP-D/1080 |
| 003 | MEXT | 2JPNHYO | Hyogo Agriculture Univ., Sasayama | CP-D/1080 |
| 003 | MTRA | 2JPNIPC | RIKEN (Inst. of Physical and Chemical Research), Wako | CP-D/1080 |
| 003 | MTRA | 2JPNMZK | Univ. of Miyazaki, Miyazaki | CP-D/1080 |
| 003 | ATRA | 2JPNNAO | National Astronomical Observatory of Japan, Mitaka | CP-D/1080 |
| 003 | MTRA | 2SWDSWR | Studsvik Science Research Laboratory, Nykoeping | CP-D/1080 |
| 003 | MTRA | 2SWDUPP | Uppsala Univ., Uppsala | CP-D/1080 |
| 003 | MTRA | 2SWTBAS | University of Basel, Basel | CP-D/1080 |
| 003 | MTRA | 2ZZZCER | European Org. for Nuclear Research (CERN), Geneva | CP-D/1080 |
| 003 | MOBS | 3CHPBJG | Peking Univ., Beijing | This memo |
| 003 | MOBS | 3CHPCHP | China Nucl.Inf.Centre, Beijing | This memo |
| 003 | MOBS | 3CHPFUD | Fudan Univ., Shanghai | This memo |
| 003 | MOBS | 3CHPIHP | Inst.of High-Energy Physics, Acad.Sinica, Beijing | This memo |
| 003 | MOBS | 3CHPIMP | Inst.of Modern Physics, Acad.Sinica, Lanzhou | This memo |
| 003 | MOBS | 3CHPZHN | Zheng-Zhou Univ. | This memo |
| 003 | MTRA | 3CPRHST | Univ. of Science and Technology of China, Hefei | CP-D/1080 |
| 003 | MTRA | 3HKGHKG | Hong Kong | CP-D/1080 |
| 003 | MTRA | 3HKGHKU | Chinese Univ. of Hong Kong | CP-D/1080 |
| 003 | MTRA | 3INDCCT | University of Calicut, Calicut | CP-D/1080 |
| 003 | DTRA | 3INDJCB | Janta College, Bakewar | CP-D/1080 |
| 003 | MTRA | 3INDTAT | Tata Institute of Fundamental Research, Mumbai | CP-D/1080 |
| 003 | DTRA | 3INDTHO | Thoubal College, Thouba | CP-D/1080 |
| 003 | MTRA | 3INDTRM | Bhabha Atomic Research Centre (BARC), Trombay, Mumbai | CP-D/1080 |
| 003 | MTRA | 3INDVUU | Vikram Univ., Ujjain | Editorial |
| 003 | ATRA | 3KORSKK | Sungkyunkwan University, Suwon | CP-D/1080 |
| 003 | MTRA | 3POLIFJ | Niewodniczanski Institute of Nuclear Physics, Krakow | CP-D/1080 |
| 003 | MTRA | 3POLWWA | Univ. of Warsaw, Warsaw | CP-D/1080 |
| 003 | MTRA | 3RUMBUC | Horia Hulubei National Institute (IFIN-HH), Magurele | CP-D/1080 |
| 003 | MTRA | 3SAFITH | iThemba Laboratories, Somerset West | CP-D/1080 |
| 003 | MTRA | 3SAFSTL | Stellenbosch Univ., Matieland | CP-D/1080 |
| 003 | MTRA | 3SAFUWC | Univ. of the Western Cape, Bellville | CP-D/1080 |
| 003 | MTRA | 3SAFWIT | Univ. of the Witwatersrand, Johannesburg | CP-D/1080 |
| 003 | MTRA | 3VN STH | Institute for Nuclear Science and Technology, Hanoi | CP-D/1080 |
| 003 | MTRA | 3ZZZIAE | International Atomic Energy Agency (IAEA), Vienna Austria | CP-D/1080 |
| 003 | MTRA | 4ARMJER | A.I. Alikhanyan National Sci. Lab. (YerPhI), Yerevan | CP-D/1080 |
| 003 | MTRA | 4ARMJSU | Yerevan State Univ., Yerevan | CP-D/1080 |
| 003 | MTRA | 4MLDAPI | Inst. of Applied Physics, Chisinau | CP-D/1080 |
| 004 | SOBS | K | Abstract of journal | CP-D/1085 |
| 005 | ATRA | CPH/B | Chinese Physics B | CP-D/1080 |
| 005 | MTRA | EPJ/P | European Physical Journal Plus | Editorial |
| 005 | ATRA | NAT/C | Nature Communications | CP-E/0167 |
| 005 | MEXT | PNJ | Philippines Nuclear Journal | Editorial |
| 005 | MEXT | REA | Atomic Energy Review, IAEA | Editorial |
| 006 | MTRA | AHSB(S)R- | U.K. AEA Health and Safety Branch Risley Reports | Editorial |
| 006 | MOBS | AIF- | Anales del Instituto de Fisica | This memo |
| 006 | MTRA | ANCR- | Aerojet Nuclear Corp. Reports | Editorial |
| 006 | MTRA | BIPM- | Bureau Int. des Poids et Mesures Reports | Editorial |
| 006 | MOBS | IBJ- | Inst.Badan Jadr.(Nucl.Res.),Swierk+Warsaw,Repts | This memo |
| 006 | MTRA | IC- | Internat.Centre for Theoretical Physics, reports | Editorial |
| 006 | MOBS | IFJ- | Inst. Fiz. Jadr. (Nucl.Phys.), Krakow Reports | This memo |
| 006 | MOBS | INDC(US)- | U.S. report to the I.N.D.C. | This memo |
| 006 | MTRA | KUR- | Inst. Atomnoy Energii, Kurchatov Reports | This memo |
| 006 | MOBS | NPD- | Pakistan Inst.Nuc.Sci.Tech.,Nucl.Phys.Div.Repts | This memo |
| 006 | MOBS | OAWS- | Oesterr.Akad.Wiss.,Math-Naturw.Kl.,Sitzungsber. | This memo |
| 006 | MTRA | THAI-AEC- | Atomic Energy for Peace, Bangkok Reports | Editorial |
| 007 | MTRA | 57PARIS | Radioisotopes in Scient.Res., UNESCO, Paris 1957 | Editorial |
| 007 | MTRA | 61SACLAY | Time of Flight Methods Conf., Saclay 1961 | Editorial |
| 007 | MOBS | 66ROSSDF | Nucl. Reactions and Structure Conf., Rossendorf 1966 | Editorial |
| 007 | MTRA | 67KRAKOW | Nuclear Spectroscopy Sem., Krakow 1967 | Editorial |
| 007 | MOBS | 67ROS | Second Nucl.Reactions+Structure Conf.Rossendorf 1967 | Editorial |
| 007 | MTRA | 69CHAND | Chemistry Symp., Chandigarh 1969 | Editorial |
| 007 | MTRA | 73PACIFI | Int.Conf.on Photonucl.Reactions,Pacific Grove 1973 | Editorial |
| 007 | MTRA | 78HEIDLB | Meet.on Nucl.and High Energy Physics,Heidelberg 1978 | Editorial |
| 007 | MTRA | 78MAYAG | Conf.on Computers in Activ.Analysis,Mayaguez 1978 | Editorial |
| 007 | DTRA | 84FUJI | Int.Symp.on Heavy Ion Nuclear Physics,Fuji 1984 | This memo |
| 007 | MTRA | 93CALICUT | 36th Nuclear Physics Symposium, Calicut, 1993 | Editorial |
| 007 | MTRA | 98VOLOS | 5. Nuclei in the Cosmos Conf., Volos, Greece, 1998 | Editorial |
| 007 | MTRA | 2002SANIB | Fission,Prop.of Neutron-Rich Nucl.,Sanibel,USA,2002 | Editorial |
| 007 | ATRA | 2016KOLKAT | 61st DAE-BRNS Symposium on Nucl. Phys., Kolkata,2016 | This memo |
| 022 | ATRA | LABR3 | LaBr3 scintillator | CP-D/1080 |
| 024 | MOBS | N-OUT | Number of emitted neutrons | Editorial |
| 024 | ATRA | TOF | Time-of-flight | CP-N/0173 |
| 031 | MTRA | CON | For a range of continuum gammas excl. discrete gammas | Editorial |
| 031 | MTRA | DIS | For a range of discrete gammas excl. continuum gammas | Editorial |
| 031 | ATRA | L- | Excluding formation via quasi-metastable state | CP-D/1080 |
| 033 | ATRA | O16 | Oxygen 16 | CP-D/1080 |
| 047 | MTRA | NU | NU | This memo |
| 144 | MTRA | AUSTR-DFN | Austral.Lib.Eval.Neut.Cross Sect.for Fis.Prod.Nuclei | Editorial |
| 144 | MTRA | BENZI-DFN | Bologna Lib.Eval.Neut.Cross Sect.for Fis.Prod.Nuclei | Editorial |
| 144 | MTRA | CNEN-CEA | Evaluated Data Library from CNEN-CEA Collaboration | Editorial |
| 144 | MTRA | EXFOR | EXFOR Experimental Nuclear Reaction Data Library | Editorial |
| 144 | MTRA | INDL/A- | IAEA Nucl.Data Lib.Eval.Neut.Reac.Data of Actinides | Editorial |
| 144 | MTRA | INDL/V- | IAEA Nucl.Data Lib.Var.Neut.Data Eval.ENDF-5 format | Editorial |
| 144 | MTRA | IRDF- | International Reactor Dosimetry File (IRDF) | Editorial |
| 144 | MTRA | RCN- | Evaluated Fission Product Cross Section Library | Editorial |
| 144 | MTRA | VIEN-V | Various International Evaluated Neutron Data (VIEN) | Editorial |
| 207 | ATRA | SNR | Studies in Neutron Reactions, New York 1966 | 4C-4/0237 |
| 213 | MTRA | CST | Temperature or thickness dependent cross sect. | This memo |
| 236 | ATRA | ,DA,,LEG/4PI | Legendre coef. 4pi d/dA=a(0)+Sum(a(L)\*P(L)) | 4C-4/0236 |
| 236 | MTRA | ,ETA | Neutron yield (Eta) | Editorial |
| 236 | MTRA | ,ETA,,RES | Eta at resonance | Editorial |
| 236 | MTRA | ,SIG,,TTA | Reaction yield divided by areal density | Editorial |
| 236 | ATRA | EXL,DA | Angular diff. cross section inclunding excitation to low-lying levels) | 4C-4/0235 |
| 236 | ATRA | EXL,DA,,LEG | Leg.coef. d/dA=a(0)+Sum(a(L)\*P(L)) incl. exciation to low-lying levels | 4C-4/0235 |
| 236 | ATRA | EXL,POL/DA,,ANA | Analyzing power including excitation to low-lying levels | CP-N/0174 |
| 236 | ATRA | PAR,DA,,LEG/4PI | Partial Legendre coef. 4pi d/dA=a(0)+Sum(a(L)\*P(L)) | 4C-4/0236 |
| 236 | ATRA | PAR/L-,DA,G | Ang.diff.c.s..of dis.gammas excl.transition from quasi-metastable state | CP-D/1080 |
| 236 | SOBS | PR/FRG,FY,G | Yield of prompt fission gammas from the fragment specified | CP-D/1049 |
| 236 | ATRA | PRE/PR/FRG,FY,G | Prompt fission gamma yield from the primary fragment specified | CP-D/1049 |
| 236 | ATRA | SEQ,DA/DA/DE,N/T/RSD | Triple-df.cs d3/dA(n)/dA(t)/dE(rsd),spec.r.seq. |  |
| 236 | DTRA | SEQ,DA/DA/DE,T/N/RSD | Triple-df.cs d3/dA(t)/dA(n)/dE(rsd),spec.r.seq. | This memo |

**Distribution:**

a.koning@iaea.org

abhihere@gmail.com

aloks279@gmail.com

daniela.foligno@oecd-nea.org

dbrown@bnl.gov

dgremyachkin@ippe.ru

draj@barc.gov.in

exfor@oecd-nea.org

fukahori.tokio@jaea.go.jp

ganesan555@gmail.com

gezg@ciae.ac.cn

iwamoto.osamu@jaea.go.jp

jmwang@ciae.ac.cn

kaltchen@ukr.net

kimdh@kaeri.re.kr

kimura.atsushi04@jaea.go.jp

l.vrapcenjak@iaea.org

manuel.bossant@oecd-nea.org

marina-03-08@yandex.ru

michael.fleming@oecd-nea.org

mvmikhaylyukova@ippe.ru

nicolas.soppera@oecd-nea.org

nomura@nucl.sci.hokudai.ac.jp

n.otsuka@iaea.org

nrdc@jcprg.org

nshu@ciae.ac.cn

odsurenn@gmail.com1G

ogritzay@ukr.net

otto.schwerer@aon.at

pikulina@expd.vniief.ru

pritychenko@bnl.gov

scyang@kaeri.re.kr

selyankina@expd.vniief.ru

sonzogni@bnl.gov

stakacs@atomki.mta.hu

stanislav.hlavac@savba.sk

sv.dunaeva@gmail.com

tada@nucl.sci.hokudai.ac.jp

taova@expd.vniief.ru

tarkanyi@atomki.hu

v.devi@iaea.org

v.zerkin@iaea.org

vidyathakur@yahoo.co.in

vsemkova@inrne.bas.bg

vvvarlamov@gmail.com

yolee@kaeri.re.kr

zholdybayev@inp.kz