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International Atomic Energy Agency
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Memo CP-D/695

Date: 9 May 2011
To: Distribution
From: N. Otsuka

Subject: Dictionary transmission 9102

- Dictionary transmission 9102 is available in three formats (Trans, Archive and Backup) from the NDS open area: <http://nds121.iaea.org/ndsx4/trans/dicts/>.
- These dictionaries and ZVV formatted dictionaries in zipped form are also available: <http://www-nds.iaea.org/exfor-master/backup/dicts-2011-05-09.zip>.
- All memos submitted before 6 April (for dictionary 1, 2, 4, 16, 24-25, 30-35, 37, 236) and 6 May (for other dictionaries) are considered in this update.
- In dictionary 24 (Data Headings), upper cases of expansions were changed to lower cases if they are appropriate. Unnecessary single quotation marks in expansions were also removed.
- It was reported by Nicolas Soppera (NEA Data Bank) that JANIS generates 161 error messages on the latest EXFOR Master (Ver.2011-03-23) with this new dictionary. (It generated 283 error messages with the previous dictionary.)
- Additional changes introduced in this memo

1. Change in status

Dictionary 3 (Institute Codes)

4UKRIJI (*Obsolete*, Use 4UKRIJD)

Dictionary 5 (Journal Codes)

NSTS (*Extinct*, Continued as NSTP)

Dictionary 236 (Quantities)

PR, DE, N, RTE (*Obsolete*, Use PR,NU/DE,,RTE). c.f. CP-D/635.

2. Change in expansion

Dictionary 3 (Institute Codes)

| | |
|---------|--|
| 2FR BRC | CEA/DAM Ile-de-France, Bruyeres-le-Chatel, <i>Arpajon</i> |
| 3CHPAEP | <i>China</i> Inst. of Atomic Energy, Beijing (c.f. CP-D/665) |
| 3CHPBJG | <i>Peking</i> Univ., Beijing (c.f. CP-D/506) |
| 4UKRIJD | Inst. Yadernyh Doslidzhen, <i>N. A. N. Ukraini, Kyiv</i> |

Dictionary 5 (Journal Codes)

IRE IEEE Trans.Nucl.Sci.IEEE Transactions on Nuclear Science

Dictionary 15 (History Codes)

L Entered into *other* data library

Dictionary 31 (Branch Codes)

20 0th component of the 2nd rank spherical tensor
21 1th component of the 2nd rank spherical tensor
22 2th component of the 2nd rank spherical tensor

Dictionary 213 (Reaction Types)

FLP Legendre coefficient, *partial or d/dE*

Dictionary 236 (Quantities)

, DA , ER Angular distribution of *unspec.* evap. residues

3. Addition of new codes

Dictionary 26 (Family Flags)

FY1E (per fission per energy)

Dictionary 213 (Reaction Types)

FYR Fission product yield at resonance
NUA Neutron yield dep.on angle

Dictionary 236 (Quantities)

PR , NU / DE , , RTE
Prompt neutron spectrum relative to square root(E) c.f. CP-D/635.

4. Other major corrections

Dictionary 24 (Data Headings)

E-NM-ERR (Change in the family code from "E" to "F")
KT-DN (Change in the unit code from "TEM" to "E")
KT-NM (Change in the unit code from "TEM" to "E")
MOM (Change in the family code from "M" to "A")
MOM-ERR (Change in the family code from "R" to "B")
MOM-MAX (Change in the family code from "M" to "A")
MOM-MIN (Change in the family code from "M" to "A")
MOM-RSL (Change in the family code from "R" to "B")

Dictionary 236 (Quantities)

EM , DA / DE , , LEG / RSL
(Change in the reaction type from "FL" to "FLP")
PAR , ARE (Correct the position of the resonance flag)

- All corrections (except trivial editorial corrections) are summarized below. “Status” gives alteration flags and status codes defined in EXFOR/CINDA Dictionary Manual.

| Dict. | Status | Code | Expansion | Memo |
|-------|--------|---------|---|-----------|
| 003 | MTRA | 2FR BRC | CEA/DAM Ile-de-France, Bruyeres-le-Chatel, Arpajon | This memo |
| 003 | MTRA | 2JPNJAE | Japan Atomic Energy Agency (JAEA) | Editorial |
| 003 | MTRA | 2JPNKTJ | Kobe Tokiwa Univ., Kobe | CP-E/148 |
| 003 | MTRA | 2JPNSUT | Tokyo University of Science, Noda, Chiba | Editorial |
| 003 | AEXT | 2JPNKKE | Tokyo Univ. of Education, Tokyo | CP-E/147 |
| 003 | MTRA | 2NORKJL | Institutt for Energiteknikk (IFE), Kjeller | CP-N/95 |
| 003 | SEXT | 2PRTJES | Junta de Energia Nuclear, Sacavem | CP-N/91 |
| 003 | MTRA | 2PRTLFE | Instituto Tecnologico e Nuclear, Sacavem | CP-N/91 |
| 003 | SEXT | 2SPNJNE | Junta de Energia Nuclear, Madrid | CP-N/91 |
| 003 | MTRA | 2SPNPCM | Parque Cientifico de Madrid (incl. CIEMAT) | CP-N/91 |
| 003 | ATRA | 2SPNUPC | Universitat Politecnica de Catalunya, Barcelona | CP-N/91 |
| 003 | ATRA | 2TUKKOC | Kocaeli University, Kocaeli | CP-N/92 |
| 003 | MOBS | 3CHPAEP | China Inst. of Atomic Energy, Beijing | This memo |
| 003 | MOBS | 3CHPBJG | Peking Univ., Beijing | This memo |
| 003 | MTRA | 3CPRAEP | China Inst. of Atomic Energy, Beijing | CP-D/665 |
| 003 | ATRA | 3CPRHXU | Hexi Univ., Zhangye | CP-D/665 |
| 003 | MTRA | 3CPRJIL | Jilin Univ., Changchun | CP-D/665 |
| 003 | ATRA | 3CPRPDU | Pingdingshan Univ., Pingdingshan | CP-D/665 |
| 003 | ATRA | 3GHALGN | National Nuclear Research Institute, Legon | CP-D/692 |
| 003 | ATRA | 3INDMNG | Mangalore University, Mangalagangotri, Konaje | CP-D/690 |
| 003 | MTRA | 3KORCHA | Chung-Ang University, Seoul | Editorial |
| 003 | MTRA | 3KORDAU | Donga University, Busan | CP-D/669 |
| 003 | MTRA | 3KORKAE | Korea Atomic Energy Research Instit. (KAERI), Daejeon | CP-D/669 |
| 003 | MOBS | 3KORKBU | National Kyong-Buk University, Taegu | Editorial |
| 003 | MTRA | 3KORKNU | Kyungpook National University, Daegu | CP-D/669 |
| 003 | MTRA | 3KORKRM | Korea Inst. Radiological & Medical Sci.(KIRAMS), Seoul | CP-D/669 |
| 003 | MTRA | 3KORKSR | Korea Research Inst. of Standards & Science, Daejeon | CP-D/669 |
| 003 | MTRA | 3KORKUS | Korea University, Seoul | Editorial |
| 003 | MTRA | 3KORNSU | Seoul National University, Seoul | CP-D/669 |
| 003 | MTRA | 3KORPNU | Pusan National University, Busan | CP-D/669 |
| 003 | MTRA | 3KORPUE | Pohang University of Science and Technology, Pohang | Editorial |
| 003 | SEXT | 3KORSEO | Atomic Energy Research Institute (AERI), Seoul | CP-D/669 |
| 003 | MTRA | 3KORULS | University of Ulsan, Ulsan | Editorial |
| 003 | MTRA | 3KORYON | Yonsei University, Seoul | Editorial |
| 003 | MTRA | 3MEXIFM | Inst. de Fis., Univ.Nacional Autonoma de Mexico(IFUNAM) | Editorial |
| 003 | MTRA | 3MEXINI | Instituto Nacional de Investigaciones Nucleares | Editorial |

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|-----|------|------------|--|-----------|
| 003 | ATRA | 3NI ABU | Ahmadu Bello University, Zaria | CP-D/692 |
| 003 | MTRA | 4RUSFVE | Institute for High Energy Physics, Protvino | CP-A/169 |
| 003 | MTRA | 4RUSKUR | Rossiiskii Nauchnyi Tsentr Kurchatovskii Inst., Moskva | CP-A/170 |
| 003 | MTRA | 4UKRIJD | Inst. Yadernyh Doslidzhen, N.A.N. Ukraini, Kyiv | This memo |
| 003 | SOBS | 4UKRIJI | Inst. Yadernykh Issledovaniy Ukrainskoi A.N., Kiev | This memo |
| 003 | MTRA | 4UKRKGU | Kyivsky Natsionalny Univ. "Taras Shevchenko", Kyiv | This memo |
| 005 | ATRA | CNPR | Nuclear Physics Review | CP-D/659 |
| 005 | ATRA | EPJ/CS | EPJ Web of Conferences | CP-D/672 |
| 005 | MTRA | IPA | Indian Journal of Pure and Applied Physics | Editorial |
| 005 | MTRA | IRE | IEEE Transactions on Nuclear Science | This memo |
| 005 | MTRA | NST | Jour. of Nuclear Science and Technology | Editorial |
| 005 | SEXT | NSTS | Jour. of Nuclear Science and Technology Suppl. | This memo |
| 005 | ATRA | NSTP | Progress in Nuclear Science and Technology | CP-E/150 |
| 007 | SOBS | 91UPPSAL | Meet. on Neutron Cross Section Standards, Uppsala 1991 | CP-D/660 |
| 007 | ATRA | 2002PRAHA | Workshop on Activation Data - EAF 2003, Prague 2002 | CP-N/94 |
| 007 | ATRA | 2006KYIV | Int.Conf.Cur.Prob.in Nucl.Phys.Atom.Energ.,Kyiv,2006 | CP-D/673 |
| 007 | ATRA | 2006SAROV | Conf. Nucl. Spectrosc. Nucl. Struct., Sarov, Russia,2006 | 4C-4/183 |
| 007 | ATRA | 2008KYIV | 2 Int.Conf.Cur.Prob.in Nucl.Phys.Atom.Ene.,Kyiv,2008 | CP-D/673 |
| 007 | ATRA | 2010HEIDLB | 11th Symp. on Nuclei in the Cosmos, Heidelberg, 2010 | CP-N/89 |
| 007 | ATRA | 2010KYIV | 3 Int.Conf.Cur.Prob.in Nucl.Phys.Atom.Ene.,Kyiv,2010 | CP-D/673 |
| 016 | MTRA | TABLE | Data presented by authors | CP-D/573 |
| 017 | MTRA | I | Reference to experimental instruments | Editorial |
| 017 | MTRA | M | Reference to experimental technique | Editorial |
| 019 | ATRA | AM-BE | Americium-Beryllium neutron source | CP-D/694 |
| 019 | ATRA | CM-BE | Curium-Beryllium neutron source | CP-D/694 |
| 019 | ATRA | PO-BE | Polonium-Beryllium neutron source | CP-D/694 |
| 019 | ATRA | PU-BE | Plutonium-Beryllium neutron source | CP-D/694 |
| 019 | ATRA | RA-BE | Radium-Beryllium neutron source | CP-D/694 |
| 019 | ATRA | RN-BE | Radon-Beryllium neutron source | CP-D/694 |
| 019 | ATRA | TH-BE | Thorium-Beryllium neutron source | CP-D/694 |
| 021 | MTRA | ASSOP | Associated particle | CP-D/671 |
| 021 | MTRA | DSCAT | Double scattering | CP-D/671 |
| 021 | MTRA | HE-AC | Helium accumulation method | CP-D/671 |
| 021 | MTRA | HEJET | Collection by He jet | CP-D/671 |
| 021 | MTRA | LRASY | Left-right asymmetry | CP-D/671 |
| 021 | MTRA | MAGFR | Magnetic field rotation | CP-D/671 |
| 021 | MTRA | RINGR | Ring ratio method | CP-D/671 |
| 021 | MTRA | SLODT | Slowing-down time | CP-D/671 |
| 024 | ATRA | E-DN-ERR | Error in outgoing particle en., REACTION ratio denom. | CP-C/391 |
| 024 | MTRA | E-NM-ERR | Error in outgoing particle en., REACTION | This memo |

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|-----|------|-------------------------------|---|-----------|
| | | | ratio numerator | |
| 024 | ATRA | EN-NRM1-MX | Upper limit of 1st incident en. range for normalization | CP-C/392 |
| 024 | ATRA | EN-NRM1-MN | Lower limit of 1st incident en. range for normalization | CP-C/392 |
| 024 | ATRA | EN-RES-DN | Resonance energy, REACTION ratio denominator | CP-N/93 |
| 024 | ATRA | EN-RES-NM | Resonance energy, REACTION ratio numerator | CP-N/93 |
| 024 | MTRA | KT-DN | Spectrum temperature, REACTION ratio denominator | This memo |
| 024 | MTRA | KT-NM | Spectrum temperature, REACTION ratio numerator | This memo |
| 024 | MTRA | MOM | Linear momentum of incident projectile | This memo |
| 024 | MTRA | MOM-ERR | Error of linear momentum of incident projectile | This memo |
| 024 | MTRA | MOM-MAX | Maximum linear momentum of incident projectile | This memo |
| 024 | MTRA | MOM-MIN | Minimum linear momentum of incident projectile | This memo |
| 024 | MTRA | MOM-RSL | Incident projectile linear momentum resolution | This memo |
| 024 | ATRA | MONIT-MAX | Upper limit of normalization value | CP-D/663 |
| 024 | ATRA | MONIT-MIN | Lower limit of normalization value | CP-D/663 |
| 024 | ATRA | TOF-MAX | Upper boundary of time-of-flight | CP-D/680 |
| 024 | ATRA | TOF-MIN | Lower boundary of time-of-flight | CP-D/680 |
| 025 | ATRA | 1/FIS/MEV | per fission/MeV | CP-D/658 |
| 026 | AINT | FY1E | per fission per energy | This memo |
| 031 | MTRA | 20 | 0th component of the 2nd rank spherical tensor | This memo |
| 031 | MTRA | 21 | 1st component of the 2nd rank spherical tensor | This memo |
| 031 | MTRA | 22 | 2nd component of the 2nd rank spherical tensor | This memo |
| 031 | ATRA | 31 | 1st component of the 3rd rank spherical tensor | CP-D/657 |
| 031 | ATRA | 32 | 2nd component of the 3rd rank spherical tensor | CP-D/657 |
| 031 | ATRA | 33 | 3rd component of the 3rd rank spherical tensor | CP-D/657 |
| 031 | ATRA | 40 | 0th component of the 4th rank spherical tensor | CP-D/657 |
| 034 | ATRA | NPD | Normalized to probability distribution | CP-D/658 |
| 207 | ATRA | BROWNE | Browne et al., Table of Radioactive Isotopes, NY 1986 | CP-D/689 |
| 207 | MTRA | NEUT .CS 1B | Neutron Cross Sections, Vol.1, Part B, Res. Par., 1984 | Editorial |
| 213 | MTRA | FLP | Legendre coefficient, partial or d/dE | This memo |
| 213 | ATRA | FYR | Fission product yield at resonance | This memo |
| 213 | ATRA | NUA | Neutron yield dep. on angle | This memo |
| 236 | ATRA | 40 / PAR , POL / DA , * , TAP | Tensor analyzing power T40/dA(*), partial | CP-E/146 |
| 236 | MTRA | , DA , ER | Angular distribution of unspec. evap. residues | This memo |
| 236 | ATRA | , KEM | Temperature of Maxw. dist. of reaction product | CP-C/390 |
| 236 | ATRA | , SIG , ER | Unspec. evap. resid. production cross section | CP-D/683 |
| 236 | ATRA | , SIG / RAT , , RES | Cross section ratio at resonance | CP-N/90 |
| 236 | SOBS | DL / GRP , DE , N | Energy spectrum for specific delayed neut. group | CP-D/687 |

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|-----|------|----------------------|---|-----------|
| 236 | ATRA | DL/GRP, NU/DE | Energy spectrum for specific delayed neut. group | CP-D/687 |
| 236 | MTRA | EM, DA/DE, , LEG/RSL | Leg. coef. for fit to double-diff. emission cs | This memo |
| 236 | ATRA | IND, FY, , RES | Independent fission-product yield at resonance | CP-C/394 |
| 236 | MTRA | PAR, ARE | Partial resonance area | This memo |
| 236 | SOBS | PR, DE, N, MXD | Prompt neut. spect. rel. to Maxw. distr. of giv. temp | CP-D/658 |
| 236 | SOBS | PR, DE, N, RTE | Energy spect. of prompt fiss. neut. square root(E) | This memo |
| 236 | ATRA | PR, KE/DA, N/N+LF | Av. kin. energ. of neut., fn.o f ang(n+light frag.) | 4C-4/186 |
| 236 | ATRA | PR, NU/DA, N+LF | Diff. prompt neut.mult.d/dA(n+light frag.) | 4C-4/184 |
| 236 | ATRA | PR, NU/DE | Energy spectrum of prompt fission neutrons | CP-C/390 |
| 236 | ATRA | PR, NU/DE, , MXD | Prompt neut. spect. rel. to Maxw. distr. of giv. temp | CP-D/658 |
| 236 | ATRA | PR, NU/DE, , NPD | Prompt fission neutron spectrum in probability | CP-D/658 |
| 236 | ATRA | PR, NU/DE, , RTE | Prompt neut. spect. relative to square root(E) | This memo |
| 236 | ATRA | PR/PAR, NU/DA | Part.diff.prompt neut.mult.d/dA | 4C-4/184 |
| 236 | ATRA | PRE, AKE, LF+HF, RES | Aver. tot. kin. energ. for prim. fiss. frag. at res. | 4C-4/186 |
| 236 | ATRA | PRE, FY/DE, LF+HF | Primary fiss. prod. yield d/dE(tot. kin. ene) | CP-C/395 |
| 236 | ATRA | SEC, FY/DE, LF+HF | Post-neutr. fiss. prod. yld d/dE(tot. kin. ene) | CP-C/395 |
| 236 | ATRA | TER, AKE, LF+HF | Avg. kin. en. sum f. light and heavy frag., tern. f. | CP-D/682 |
| 236 | ATRA | TER/PAR, KE, N | Kin. ene. of neut. assoc. to prod. level. spec. tern. fiss. | CP-N/90 |

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