**Nuclear Data Section**

**International Atomic Energy Agency**

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

**Memo CP-D/980**

**Date:** 18 June 2019

**To:** Distribution

**From:** N. Otsuka

**Subject: Dictionary transmission 9120**

Dictionary transmission 9120 is available in three formats (Trans, Archive and Backup) from the NDS open area: <http://www-nds.iaea.org/nrdc/ndsx4/trans/dicts/>. These dictionaries in zipped form (dicts-2019-06-17.zip) are also available: <http://www-nds.iaea.org/exfor-master/backup/?C=M;O=D>.

All memos submitted no later than 17 May (for dictionary 1, 2, 4, 16, 24-25, 30-35, 37, 236) or 17 June (for other dictionaries) are considered in this update.

Major revisions agreed in the NRDC 2019 meeting:

* A new dictionary 38 (Supplemental information) was added. The dictionary processing code DAN2X4 was updated by Viktor Zerkin for this addition.
* All quantity codes having SF5=IND without SF6=FY were made obsolete in Dictionary 236.

Nicolas Soppera reviewed the new dictionaries, and the new dictionaries were finalized as per his comments. He reports that JANIS detects 0 uses of quantities (SF5-SF8), data headings and data units undefined in dictionary 24, 25 and 236 on the EXFOR Master (Ver.2019-06-13) with this new dictionary. (It was detecting 24 such error messages with the previous dictionary.).

Additional changes introduced in this memo are summarized below: Two revisions in Dictionaries 33 (O15) and 236 (PR,AKE/DA,N/N+LF) requires NRDC approval, and please inform me within one month if you do not agree with them.

**Dictionary 3 (Institutes)**

2AUSGFK (Expansion updated)

2AUSTPG (Expansion updated)

2ITYFSN (Expansion updated)

2NEDRUG Rijksuniversiteit Groningen, Groningen

3CZRUJV (Expansion updated)

3INDNEH North Eastern Hill University, Meghalaya

4RUSMIF (Expansion updated)

**Dictionary 5 (Journals)**

EPRC Energy Procedia

JMSJ Journal of the Mass Spectrometry Soc. of Japan

VAT/V Vopr.At.Nauki i Tek.,Ser.Fiz.Vys.Ene.i Atom.Yad.

**Dictionary 6 (Reports)**

MAINZ- (Expansion updated)

**Dictionary 7 (Conferences)**

65ANTWERP (Expansion updated)

77TOKYO (*Obsolete*, Use J,JPJ/S,44)

2008MOSCOW Int.Conf.Nucl.Spectroscopy Nucl.Struct., Moscow, 2008

**Dictionary 21 (Methods)**

TOFDE Particle identification by 'TOF-Delta E' measurement

**Dictionary 33 (Particles)\***

O15 Oxygen 15

**Dictionary 207 (Books)**

SPN (Expansion updated)

**Dictionary 209 (Chemical Compounds)**

22-TI-HYD Titanium hydride

31-GA-CMP Gallium compound

**Dictionary 213 (Reaction types)**

CSN Cross section for emission of N products

**Dictionary 236 (Quantities)\***

PR,AKE/DA,N/N+LF (*Obsolete*. KE must be used instead of AKE)

All changes are summarized below. “Status” gives alteration flags and status codes defined in EXFOR/CINDA Dictionary Manual.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dict.** | **Status** | **Code** | **Expansion** | **Remark\*** |
| 002 | ATRA | SUPPL-INF | Supplemental information | CP-D/965 |
| 003 | MTRA | 2AUSGFK | Technische Universitaet Graz, Graz | This memo |
| 003 | MTRA | 2AUSTPG | Universitaet Graz, Graz | This memo |
| 003 | MTRA | 2ITYFSN | Universita degli Studi della Campania, Caserta | This memo |
| 003 | MOBS | 2JPNJCL | Cyclotron Lab., Inst. of Phys.& Chem. Research, Wakou | Editorial |
| 003 | ATRA | 2NEDRUG | Rijksuniversiteit Groningen, Groningen | This memo |
| 003 | MTRA | 3CZRUJV | Research Centre Rez, Husinec-Rez | This memo |
| 003 | ATRA | 3INDNEH | North Eastern Hill University, Meghalaya | This memo |
| 003 | MTRA | 4RUSMIF | National Research Nuclear University MEPhI, Moscow | This memo |
| 003 | MTRA | 4ZZZDUB | Joint Institute for Nuclear Research (JINR), Dubna Russia | Editorial |
| 005 | AEXT | EPRC | Energy Procedia | This memo |
| 005 | ATRA | JMSJ | Journal of the Mass Spectrometry Soc. of Japan | This memo |
| 005 | MTRA | RBF | Brazilian Journal of Physics | Editorial |
| 005 | ATRA | VAT/V | Vopr.At.Nauki i Tek.,Ser.Fiz.Vys.Ene.i Atom.Yad. | This memo |
| 006 | MTRA | LBL- | Lawrence Berkeley Laboratory Reports | Editorial |
| 006 | ATRA | LBNL- | Lawrence Berkeley National Laboratory Reports | CP-C/470 |
| 006 | MTRA | MAINZ- | Inst. Nuclear Chem. Mainz Univ. Annual Reports | This memo |
| 007 | MTRA | 65ANTWERP | Nuclear Structure Study with Neutrons, Antwerp 1965 | This memo |
| 007 | SOBS | 77TOKYO | Int.Conf.on Nuclear Structure, Tokyo, 5-10 Sep 1977 | This memo |
| 007 | ATRA | 2008MOSCOW | Int.Conf.Nucl.Spectroscopy Nucl.Struct., Moscow, 2008 | This memo |
| 007 | ATRA | 2017ATTICA | Ann. Symp. of Hellenic Nucl. Phys. Soc., Attica, 2017 | CP-N/153 |
| 016 | MTRA | NCHKD | Authenticity not confirmed | CP-D/973 |
| 016 | ATRA | SUPPL | Supplemental information compiled separately | CP-D/965 |
| 021 | ATRA | TOFDE | Particle identification by 'TOF-Delta E' measurement | This memo |
| 024 | ATRA | MOM-TR-CM | Momentum transfer (in units MeV/c or equiv.), c.m.sys. | CP-N/152 |
| 025 | MTRA | CI/AHR/MEV | Curie per Ampere-hour per MeV | Editorial |
| 025 | ATRA | CI/ASECMEV | Curie per Ampere-second per MeV | CP-N/147 |
| 025 | MOBS | N/PART | neutrons per Incident Projectile | Editorial |
| 025 | MOBS | NUC/PART | nuclei per incident projectile | Editorial |
| 025 | MTRA | PC/INC | particles/100 incid.projectiles | Editorial |
| 025 | MTRA | PRD/IN/MEV | products per inc. proj. per MeV | Editorial |
| 025 | MTRA | PRD/INC | products/incident projectile | Editorial; |
| 025 | MTRA | PRT/IN/MEV | particles per inc. proj. per MeV | Editorial |
| 025 | MTRA | PRT/INC | particles per incident projectile | Editorial |
| 033 | ATRA | O15 | Oxygen 15 | This memo |
| 034 | MTRA | ANA | Analyzing power | Editorial |
| 034 | ATRA | FRC | Fractional | CP-D/974 |
| 037 | SOBS | FRCUM | Fractional cumulative yield | CP-D/974 |
| 037 | SOBS | FRIND | Fractional independent yield | CP-D/974 |
| 038 | ATRA | INCSP | Incident particle spectrum | CP-D/965 |
| 038 | ATRA | RESFN | Resolution (response) function | CP-D/965 |
| 207 | ATRA | BLATT | J.M.Blatt et al., Theoretical Nuclear Physics,NY 1952 | CP-M/037 |
| 207 | MTRA | SPN | Soviet Progress in Neutron Physics, New York 1963 | This memo |
| 209 | MTRA | 13-AL-OXI | Alminium oxide | Editorial |
| 209 | ATRA | 22-TI-HYD | Titanium hydride | This memo |
| 209 | ATRA | 31-GA-CMP | Gallium compound | This memo |
| 209 | MTRA | 40-ZR-HYD | Zirconium hydride | Editorial |
| 209 | MTRA | 40-ZR-OXI | Zirconium oxide | Editorial |
| 209 | MTRA | 67-HO-CMP | Holmium compound | Editorial |
| 209 | MTRA | 67-HO-OXI | Holmium oxide | Editorial |
| 209 | MTRA | 92-U-OXI | Uranium oxide | Editorial |
| 213 | ATRA | CSN | Cross section for emission of N products | This memo |
| 236 | ATRA | ,DA,,RS/TMP | Differential c/s d/dA \* 4pi/Sigma at other than room temperature | CP-N/149 |
| 236 | ATRA | BIN/TER,FY/RAT | Binary/ternary fission product yield ratio | CP-D/974 |
| 236 | ATRA | CUM,FY,,FRC | Fractional cumulative fission product yield | CP-D/974 |
| 236 | SOBS | IND,DA | Differential cross sect. d/dA, direct formation | CP-D/978 |
| 236 | SOBS | IND,DA,N | Ang. distr. of neutrons, direct formation | CP-D/978 |
| 236 | SOBS | IND,DA/DE | Double diff. c/s d2/dA/dE, direct formation | CP-D/978 |
| 236 | ATRA | IND,FY,,FRC | Fractional independent fission product yield | CP-D/974 |
| 236 | SOBS | IND,PY | Independent product yield | CP-D/978 |
| 236 | SOBS | IND,PY,,TT | Indep. product yield for a thick target | CP-D/978 |
| 236 | SOBS | IND,SIG | Independent cross section | CP-D/978 |
| 236 | SOBS | IND,SIG,G | Independent gamma prod.cs | CP-D/978 |
| 236 | SOBS | IND,SIG/RAT | Independent cross section ratio | CP-D/978 |
| 236 | SOBS | IND,TTY,,EOB | EOB thick target yield, independent | CP-D/978 |
| 236 | SOBS | IND,TTY,,PHY | Physical thick/thin-target yield, independent | CP-D/978 |
| 236 | SOBS | IND,TTY,,SAT | Independent saturation thick target yield | CP-D/978 |
| 236 | SOBS | IND/(M),SIG | Indep. cross section (isomeric trans.uncertain) | CP-D/978 |
| 236 | SOBS | IND/M+,PY | Independent product yield, incl. isom.trans. | CP-D/978 |
| 236 | SOBS | IND/M+,SIG | Independent cross sect., incl. isomeric trans. | CP-D/978 |
| 236 | SOBS | IND/M+,TTY,,EOB | Ind. EOB thick target yield, incl.isom.trans. | CP-D/978 |
| 236 | ATRA | ISP,SIG | Cross section, partial for intermediate product | CP-N/149 |
| 236 | MTRA | ISP/PAR,SIG | Cross section, partial for final and intermediate products | Editorial |
| 236 | MTRA | NUM,SIG | Cs for production of N product particles | Editorial |
| 236 | MTRA | NUM,SIG,\* | Cs for production of N product particles spec. | Editorial |
| 236 | ATRA | PAR,DA,\*,COS/RSD | Ptl.cos coef(d/dA)/(d/dA,90deg)=Sum(a(L)cos\*\*L) of particle specified | 4C-4/221 |
| 236 | SOBS | PAR/IND,DA | Partial angular distribution, direct formation | CP-D/978 |
| 236 | SOBS | PAR/IND,DA,,LEG/1K2 | Part.leg.coef.k\*\*2 d/dA=Sum(a(L)P(L)),dir.form. | CP-D/978 |
| 236 | SOBS | PAR/IND,SIG | Partial independent cross section | CP-D/978 |
| 236 | SOBS | PAR/IND,SIG/RAT | Independent cross section ratio,partl.react. | CP-D/978 |
| 236 | SOBS | PR,AKE/DA,N/N+LF | Av.E of pr.neutr.at given ang.(n+light frag.) | This memo |
| 236 | ATRA | TER,FY,,RES | Fission-product yield, ternary fission at resonance | CP-N/146 |

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