**Nuclear Data Section**

**International Atomic Energy Agency**

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

**Memo CP-D/1016**

**Date:** 25 June 2021

**To:** Distribution

**From:** N. Otsuka

**Subject: Dictionary transmission 9124**

Dictionary transmission 9124 (Trans, Archive and Backup) is now available from the NDS open area: <http://nds.iaea.org/nrdc/ndsx4/trans/dicts/>. These dictionaries in zipped form (dicts-2021-06-25.zip) are also available: <http://nds.iaea.org/exfor-master/backup/?C=M;O=D>.

All memos submitted no later than 23 May (for dictionary 1, 2, 4, 16, 24-25, 30-35, 37, 236) or 23 June (for other dictionaries) are considered in this update. The conclusions of the NRDC 2021 meeting (Memo CP-D/1015, INDC(NDS)-0829) are also considered.

1. I deleted about 200 quantity codes defined in Dictionary 236 but not used under REACTION, MONITOR and ASSUMED in EXFOR Master File Ver.2021-06-15. They are indicated by “Not in use” in the table appended to this memo.
2. I also deleted the following quantity codes from Dictionary 236 since they are defined by more generic quantity codes with wildcards:
   * ,DA,ER; ,DA,RSD (covered by ,DA,\*)
   * ,DA/DA,A/A; ,DA/DA,A/G (covered by ,DA/DA,\*/\*)
   * ,DA/DA,A/A+A (covered by ,DA/DA,\*/\*+\*)
   * ,DA/DE,\*/RSD (covered by ,DA/DE,\*/\*)
   * ,DA/DE,RSD (covered by ,DA/DE,\*)
   * ,DE,FF; ,DE,RSD (covered by ,DE,\*)
   * ,DE,N+N+A; ,DE,N+N+HE6 (covered by ,DE,\*+\*+\*)
   * ,KE,FF (covered by ,KE,\*)
   * ,MLT,N (covered by ,MLT,\*)
   * PAR,DA,RSD (covered by PAR,DA,\*)
   * PAR,SIG,A; PAR,SIG,DG; PAR,SIG,G (covered by PAR,SIG,\*)
   * SEC,FY/DE,HF; SEC,FY/DE,LF (covered by SEC,FY/DE,\*F)
   * TER,KE,FF (covered by TER,KE,\*)
3. Two headings E3 and E3-MIN were deleted. E3 is used only in F0051.003, but it must be replaced with E. E3-MIN is used only in O0289.020 (E3-MIN=1.9 MeV), but it must be deleted. These subentries are registered in Feedback List.
4. New CINDA quantity code COR (angular correlation) and the web quantity code COR (Secondary particle correlations) were deleted. The nine manual CINDA lines are coded with COR. A CINDA batch file for their deletion was submitted to Viktor Zerkin on 12 Jan. 2020.
5. A new quantity code PAR,DA/DA,\*/\*+\* was proposed in CP-D/1014 (=WP2021-10) and approved (C12 of NRDC 2021). Instead of this quantity code, ,DA/DA,\*/\*+\* was added for implementation of this conclusion.
6. The quantity code ,DA,\*/\* was deleted. This quantity code is used only in G4050.004 and 005, but they will be retransmitted in next area G transmission by replacing \*/\* with \*+\*.
7. The branch code (DEF) and the quantity code M+/(DEF),SIG were deleted. These code are used only in B0105.008, and it will be retransmitted in next area B transmission by replacing the REACTION code with (80-HG-202(P,X)79-AU-193,,SIG).

Additional changes introduced in this memo are summarized below:

**Dictionary 3 (Institutes)**

2FR ARN GIP Arronax, Saint Herblain

2GERKLN (Expansion updated by addition of “zu”).

3INDIRR Indian Institute of Technology, Roorkee

3SAFUWC Univ. of Western Cape, Bellville, Cape Town

4KASATN (Expansion updated by replacing “Astana” with “Nur-Sultan”).

4KASNZR Nazarbayev Univ., Nur-Sultan

**Dictionary 5 (Journals)**

ARS (*Extinct*)

INST Instruments

**Dictionary 24 (Data headings)**

ANG2-RL-CM (*Delete.* Not in use.)

E4 (*Delete.* Not in use.)

E5 (*Delete.* Not in use.)

**Dictionary 32 (Parameters)**

CRL (*Delete*. Not used in Dictionary 236.)

DN (*Delete*. Defined for ,NU/DN and PR,NU/DN, but they are deleted in this update.)

ECO (*Delete*. Not used in Dictionary 236.)

EMC (*Delete*. Not used in Dictionary 236.)

MCO (*Delete*. Not used in Dictionary 236.)

RYL (*Delete*. Defined for ,TRN,,RYL, but it is deleted in this update.)

TRN (*Delete*. Not used in Dictionary 236.)

**Dictionary 213 (Reaction types)**

CSS (*Delete*. Defined for ,SIG,,SFC/TMP, but it is deleted in this update.)

ITR (*Delete*. Defined for ,INT,,RES, but it is deleted in this update.)

NUF (*Delete*. Defined for PR,NU,FF, PR,NU,:HF and PR,NU,:LF, but they are deleted in this update.)

PY+ (*Delete*. Defined for (CUM),PY and (M),PY, but they are deleted in this update.)

**Dictionary 236 (Quantities)**

,SIG/TMP,,SFC (Expansion updated by deletion of “for cross section” etc.)

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 | ANG-SEC | Secondary angle | CP-D/1015 |
| 003 | ATRA | 2FR ARN | GIP Arronax, Saint Herblain | This memo |
| 003 | MTRA | 2GERGSI | GSI Helmholtzzent. f. Schwerionenforschung, Darmstadt | Editorial |
| 003 | MTRA | 2GERKLN | Universitaet zu Koeln | This memo |
| 003 | MTRA | 2ITYMIL | Universita degli Studi di Milano + INFN Milano | Editorial |
| 003 | ATRA | 3CPRSNU | Shanxi Normal University, Linfen | CP-S/0007 |
| 003 | ATRA | 3CPRSZH | Sun Yat-Sen University, Zhuhai | CP-S/0007 |
| 003 | ATRA | 3CPRSZN | Shenzhen University, Shenzhen | CP-S/0008 |
| 003 | ATRA | 3INDIRR | Indian Institute of Technology, Roorkee | This memo |
| 003 | ATRA | 3SAFUWC | Univ. of Western Cape, Bellville, Cape Town | This memo |
| 003 | MTRA | 4KASATN | L.N.Gumilyov Eurasian National University, Nur-Sultan | This memo |
| 003 | ATRA | 4KASNZR | Nazarbayev Univ., Nur-Sultan | This memo |
| 005 | MTRA | AJPA | American Journal of Physics and Applications | Editorial |
| 005 | SEXT | ARS | Anales de Fisica | This memo |
| 005 | ATRA | INST | Instruments | This memo |
| 006 | ATRA | LLNL-TR- | Lawrence Livermore National Laboratory Reports | CP-C/0491 |
| 018 | ATRA | LCEXP | Location of experiment | INDC(NDS)-0829 |
| 024 | DTRA | ANG2-RL-CM | Relative 2nd angle, c.m. system | This memo |
| 024 | DTRA | E-ERR1 | First outgoing particle energy error | CP-E/0163rev |
| 024 | DTRA | E-ERR2 | Second outgoing particle energy error | CP-E/0163rev |
| 024 | MTRA | E1-ERR | 1st outgoing particle energy error | CP-E/0163rev |
| 024 | MTRA | E2-ERR | 2nd outgoing particle energy error | CP-E/0163rev |
| 024 | DTRA | E3 | 3rd outgoing particle energy, defined under EN-SEC | This memo |
| 024 | DTRA | E3-MIN | Lower limit, 3rd outgoing part. en.range, see EN-SEC | This memo |
| 024 | DTRA | E4 | 4th outgoing particle energy, defined under EN-SEC | This memo |
| 024 | DTRA | E5 | 5th outgoing particle energy, defined under EN-SEC | This memo |
| 024 | ATRA | KT-DUM-ERR | Error in dummy spectrum temperature | CP-N/0161 |
| 024 | ATRA | TKE-ERR-D | Digitizing error of total kinetic energy | CP-N/0166 |
| 031 | DOBS | (DEF) | Uncertain if reaction channel defined | This memo |
| 032 | MTRA | AMP | Scattering length | 4C-3/0416 |
| 032 | DOBS | CRL | Correlation | This memo |
| 032 | DOBS | DN | Diff.with no.of outgoing particles (comb.with SIG) | This memo |
| 032 | DOBS | ECO | Energy correlation | This memo |
| 032 | DOBS | EMC | Effective mass correlation | This memo |
| 032 | DOBS | MCO | Linear momentum correlation | This memo |
| 034 | ATRA | HYD | hydrogen part | 4C-3/0415rev |
| 034 | DOBS | RYL | Reaction yield | This memo |
| 034 | DOBS | TRN | Transmission | This memo |
| 045 | MTRA | AMP | Scattering length | 4C-3/0416 |
| 045 | DOBS | COR | Angular correlation | This memo |
| 113 | DOBS | COR | Secondary particle correlations | This memo |
| 113 | MTRA | L | Scattering length | 4C-3/0416 |
| 207 | ATRA | NEUT.D.BKL | Neutron Data Booklet, 2nd edition, 2003 | CP-N/0169 |
| 213 | DTRA | CSS | Cs at other than the room temp. (nonstandard) | This memo |
| 213 | DTRA | ITR | Cs integral over inc.en.,at resonance | This memo |
| 213 | MTRA | L | Scattering length | 4C-3/0416 |
| 213 | DOBS | NUF | Neutron yield for fiss.fragments | This memo |
| 213 | DTRA | PY+ | Product yield(other than fission, nonstandard) | This memo |
| 236 | DTRA | (CUM),PY | Product yield (uncertain if cumulative) | Not in use |
| 236 | DTRA | (CUM),SIG,G | Gamma prod. cross sect.(uncertain if cumulative) | Not in use |
| 236 | DOBS | (CUM),TTY,,DT | Prod.thick/thin target yld (uncertain if cum.) | Not in use |
| 236 | DOBS | (CUM)/(M)/UND,SIG | Cross section,uncert. if cum or +meta,undef. | Not in use |
| 236 | DOBS | (CUM)/UND,SIG | Cross section, undef.react.(uncertain if cum.) | Not in use |
| 236 | DOBS | (DEF),SIG | Cross section (assumed reaction defined) | Not in use |
| 236 | DTRA | (M),PY | Product yield (uncert.if isomeric trans.incl) | Not in use |
| 236 | DOBS | (M),TTY,,DT | Prod.thick target yld.,unc.if isom.trans.incl. | Not in use |
| 236 | DOBS | (M)/UND,SIG | Cross sect.,undef.react.(uncert.isom.trans.inc) | Not in use |
| 236 | DOBS | ,AKE | Average kinetic energy of outgoing particle | Not in use |
| 236 | ATRA | ,ALF,,TTA | Capture-to-fission yield ratio | CP-N/0161 |
| 236 | MTRA | ,AMP | Scattering length | 4C-3/0416 |
| 236 | DTRA | ,ARE,,RTE | Resonance area \* square root(E) | Not in use |
| 236 | DTRA | ,DA,\*/\* | Angular distribution of particle pair specified | This memo |
| 236 | DTRA | ,DA,,COS/RS0 | Cosne coef. (d/dA)/(d/dA,0deg)=Sum(a(L)cos\*\*L) | Not in use |
| 236 | DTRA | ,DA,ER | Angular distribution of unspec.evap.residues | This memo |
| 236 | DTRA | ,DA,RSD | Angular distribution of residual nucleus | This memo |
| 236 | SOBS | ,DA/DA,\*+\*/\* | Angular correl.betw.specif.particles,rel.angle | CP-D/1014 |
| 236 | ATRA | ,DA/DA,\*/\*+\* | Double diff. cross section d2/dA(\*)/dA(\*+\*) | This memo |
| 236 | DTRA | ,DA/DA,A/A | Double diff. cross section d2/dA(a)/dA(a) | This memo |
| 236 | DTRA | ,DA/DA,A/A+A | Angular correlation betw.alphas,rel.angle | This memo |
| 236 | DTRA | ,DA/DA,A/G | Angular correlation alphas/gammas | This memo |
| 236 | DTRA | ,DA/DE,\*/RSD | Double-diff.cs d2/dA(\*)/dE(residual nucleus) | This memo |
| 236 | DOBS | ,DA/DE,,IPA | Double diff.cs integr.over partial ang.range | Not in use |
| 236 | DOBS | ,DA/DE,G,IPA | Double-diff.gamma cs integr.over part.ang.range | Not in use |
| 236 | DTRA | ,DA/DE,RSD | Double-diff.cross section for residual nucleus | This memo |
| 236 | DOBS | ,DA/DE,RSD,IPA | Double-diff.cs f.resid.int.over part.ang.range | Not in use |
| 236 | DOBS | ,DA/KE,FF | Kinetic en. of fission frag. with resp.to angle | Not in use |
| 236 | DTRA | ,DE,\*/\* | Energy spectrum of particle pair specified | Not in use |
| 236 | DTRA | ,DE,A/RSD | Energy spectrum of alpha/residual nucleus pair | Not in use |
| 236 | DTRA | ,DE,FF | Energy spectrum of fission fragments | This memo |
| 236 | DTRA | ,DE,LF | Energy spectrum of light fission fragments | Not in use |
| 236 | DTRA | ,DE,N+N+A | Relat. energy spectrum of 2 neutrons and alphas | This memo |
| 236 | DTRA | ,DE,N+N+HE6 | Relat. energy spectrum of 2 neutrons and He-6 | This memo |
| 236 | DTRA | ,DE,N/N/A | Energy spectrum (sum of kin.en.of 3 particles) | Not in use |
| 236 | DTRA | ,DE,RSD | Energy spectrum of residual nucleus | This memo |
| 236 | DTRA | ,ETA/NU,,RES | Eta/Nu at resonance | Not in use |
| 236 | DTRA | ,FM/DA,,AL1/RS | Leg.coef.of 1st kind for spin-pol.prob. \* d/dA \*(4pi/sigma) | Not in use |
| 236 | DOBS | ,INT,,RES | Cross-section integral over inc. energy at res. | Not in use |
| 236 | DOBS | ,KE,FF | Kinetic energy of fission fragments | This memo |
| 236 | DTRA | ,KEP,A | Most probable kinetic energy alphas | Not in use |
| 236 | DTRA | ,KEP,FF | Most probable kin.energy of fission fragments | Not in use |
| 236 | DTRA | ,MLT,N | Neutron multiplicity | This memo |
| 236 | DTRA | ,MLT,N/FF | Neutron multiplicity as fct.of fiss.fr.mass | Not in use |
| 236 | DTRA | ,MLT/DA,,TT | Particle multiplicity f.thick target d/dA | Not in use |
| 236 | DTRA | ,MLT/DA,G,TT/CH | Thick target gamma mult.d/dA per electric charge | Not in use |
| 236 | DOBS | ,NU/DE,FF | No.of neutrons emitted by fiss.fr.of given E | Not in use |
| 236 | DOBS | ,NU/DN | Probab.of emiss.of N neutrons in 1 fiss.event | Not in use |
| 236 | DOBS | ,POL,,ASY | Polarization asymmetry | Not in use |
| 236 | DTRA | ,POL,FF,ASY | Asymmetry of fission fragments | Not in use |
| 236 | DTRA | ,POL/DA,,AL1 | Assc.leg.coef.of 1st kind to fit spin-pol.prob. | Not in use |
| 236 | DOBS | ,POL/DA,,AZZ | Tensor anal.power,inc.proj.spin parall.scatt.pl | Not in use |
| 236 | DTRA | ,POL/DA,,COS | Cosine coef. for fit to spin-pol. probability | Not in use |
| 236 | DOBS | ,POL/DA,,SF | Spin-flip probability, S(nn) | Not in use |
| 236 | DOBS | ,POL/DA,D,TAP | Tensor anal.power, T(kq) for deuteron | Not in use |
| 236 | DOBS | ,PY,,DT | Product yield per unit time | Not in use |
| 236 | DTRA | ,RI,,RV/LIM | Resonance integral, 1/v, limited energy range | Not in use |
| 236 | DOBS | ,RI/SUM,,RNV | Resonance integral, non 1/v part, isomeric sum | Not in use |
| 236 | DTRA | ,SGV,,RNV | Thermonuclear reaction rate, non 1/v part | Not in use |
| 236 | DTRA | ,SGV,,RV | Thermonuclear reaction rate, 1/v part | Not in use |
| 236 | DOBS | ,SIF/TMP | Temperature-dependent self-indication function | Not in use |
| 236 | DOBS | ,SIG,,DSP | Cross sect. (spins antiparallel-spins parallel) | Not in use |
| 236 | ATRA | ,SIG,,HYD | Cross section of hydrogen in hydride molecule | 4C-3/0415rev |
| 236 | DOBS | ,SIG,,SF | Spin-flip cross section | Not in use |
| 236 | DTRA | ,SIG,,SFC/TMP | S-factor at other than the room temperatrue | Not in use |
| 236 | DOBS | ,SIG/TEM | Temperature-dependent cross section | Not in use |
| 236 | MOBS | ,SIG/TMP,,SFC | Temperature-dependent S-factor | This memo |
| 236 | DOBS | ,TRN,,RYL | Reaction yield | Not in use |
| 236 | DOBS | ,TTY,,DT | Production thick/thin-target yield | Not in use |
| 236 | DTRA | ,TTY/DA | Diff.satur.thick target yield d/dA | Not in use |
| 236 | DOBS | ,TTY/MLT/DA,G | Thick targ.mult.d/dA,fct.of beam curr., for g | Not in use |
| 236 | DTRA | 2,WID,,VGT | Vogt resonance width for channel 2 | Not in use |
| 236 | DOBS | 20,POL/DA,,VAP | Vector analyzing power, T20 | Not in use |
| 236 | DOBS | 20,POL/DA,D,VAP | Vector anal. power, T20 for deuteron | Not in use |
| 236 | MTRA | BA,AMP | Bound-atom scattering length | 4C-3/0416 |
| 236 | MTRA | BA/COH,AMP | Bound-atom coherent scattering length | 4C-3/0416 |
| 236 | MTRA | BA/PAR,AMP | Partial bound-atom scattering length | 4C-3/0416 |
| 236 | DTRA | BIN,AP,HF | Most prob. mass of heavy frag.in binary fission | Not in use |
| 236 | DTRA | CHN,FY/DE,LF+HF | Total chain yield of fission products d/dTKE | Not in use |
| 236 | DTRA | CN,FY | Fission-product yield, compound nucleus contrib | Not in use |
| 236 | DTRA | CN,NU | Nu-bar, compound nucleus contribution | Not in use |
| 236 | DTRA | CN,PY | Product yield, compound nucleus contribution | Not in use |
| 236 | DTRA | CN/SEQ,SIG | Cross section, specif. seq., comp.nucl.contrib. | Not in use |
| 236 | MTRA | COH,AMP | Coherent scattering length | 4C-3/0416 |
| 236 | MTRA | COH/IM,AMP | Coherent scattering length (imaginary part) | 4C-3/0416 |
| 236 | DOBS | CUM,SIG/SUM | Cumulative cross section sum | Not in use |
| 236 | DOBS | CUM,TTY | Saturated cumul.thick/thin target yield | Not in use |
| 236 | DOBS | CUM,TTY,,DT | Cum.production thick-target yield (unsat.) | Not in use |
| 236 | DOBS | CUM,TTY,,TM | Cum. production thick target yld for 1 MeV thick | Not in use |
| 236 | DOBS | CUM/(M),TTY | Cum.thick-target yield (uncert.isom.trans.incl) | Not in use |
| 236 | DOBS | CUM/(M)/UND,SIG | Cum.cross sect.,undef.react.(uncert.isom.trans) | Not in use |
| 236 | DTRA | CUM/TER,FY | Cumulative fission prod. yield for ternary fiss | Not in use |
| 236 | DOBS | CUM/UND,SIG/RAT | Cumul. cross section ratio, undefined reaction | Not in use |
| 236 | ATRA | DI,SIG,,SFC | S-factor, direct interaction contribution | CP-N/165 |
| 236 | DTRA | DI/PAR,DA/DE | Partial double diff. c/s d2/dA/dE, ir.int.contr | Not in use |
| 236 | DTRA | DI/SEQ,SIG | Partial cross section, spec.seq.,dir.int.contr. | Not in use |
| 236 | DOBS | DL,AKE,N | Average kinetic energy of delayed neutrons | Not in use |
| 236 | DTRA | DL,DE,N | Energy spectrum of delayed neutrons | Not in use |
| 236 | DOBS | DL,NU,FF | Yield of del.neutrons em.by specified fiss.frag | Not in use |
| 236 | DOBS | DL/GRP,AKE,N | Avg. kinetic en. for specif. delayed neut.group | Not in use |
| 236 | DOBS | DL/PAR,AKE,N | Avg. kinetic en. for specif. delayed neut.group | Not in use |
| 236 | DOBS | DL/PAR,DE,N | Energy spectrum for specific delayed neut.group | Not in use |
| 236 | DTRA | DL/PAR,SIG,N | Partial delayed-neutron emission cross section | Not in use |
| 236 | DTRA | EM,POL/DA/DE,,ANA | Analyzing power / dE for particle emission | Not in use |
| 236 | DTRA | EM/PAR,DA/DE | Partial double-diff. emission cs d2/dA/dE | Not in use |
| 236 | DTRA | EM/PAR,DA/DE,,LEG/RSL | Leg.coef.f.partial double-diff.emission cs | Not in use |
| 236 | DTRA | EM/PAR,DE | Partial particle emission energy spectrum | Not in use |
| 236 | DTRA | EM/PAR,POL/DA | Partial emission diff.spin-polar.prob. | Not in use |
| 236 | MTRA | FA,AMP | Free-atom scattering length | 4C-3/0416 |
| 236 | DTRA | INC,AMP | Incoherent scattering length | Not in use |
| 236 | DOBS | IND,DA,N | Ang. distr. of neutrons, direct formation | Not in use |
| 236 | DTRA | IND,FY,G | Total yield of prompt fission gammas | Not in use |
| 236 | DOBS | IND,FY/SUM | Independent fission-product yield sum | Not in use |
| 236 | DOBS | IND,PY,,TT | Indep. product yield for a thick target | Not in use |
| 236 | DOBS | IND,SIG,G | Independent gamma prod.cs | Not in use |
| 236 | DOBS | IND,SIG/SUM | Independent cross section sum | Not in use |
| 236 | DOBS | IND,TTY | Independent thick-target yield | Not in use |
| 236 | DOBS | IND/M+,PY | Independent product yield, incl. isom.trans. | Not in use |
| 236 | DOBS | IND/M+,TTY,,DT | Ind.production thick-target yld incl.isom.tr. | Not in use |
| 236 | DOBS | IND/M+/UND,SIG | Ind. cross sect., undef.react.,incl.isom.trans. | Not in use |
| 236 | DOBS | IND/UND,PY | Independent product yield, undefined reaction | Not in use |
| 236 | DOBS | IND/UND,SIG | Independent cross section, undefined reaction | Not in use |
| 236 | DOBS | IND/UND,SIG,G | Independent gamma prod.cs, undefined reaction | Not in use |
| 236 | DOBS | IND/UND,SIG/RAT | Indep. cross section ratio, undefined reaction | Not in use |
| 236 | DOBS | IND/UND,SIG/SUM | Indep. cross section sum, undefined reaction | Not in use |
| 236 | ATRA | ISP/PR/FRG,NU | Multiplicity of prompt neutrons from frag.spec.,partial.f.interm.prod. | CP-N/0167 |
| 236 | ATRA | ISP/SEC,KE | Kinetic energy of post-n-emiss.prod.spec., partial for intermed.prod. | CP-N/0167 |
| 236 | DTRA | LL/PAR,POL/DA,,K | Spin-transfer parameter, K(LL), partl.reaction | Not in use |
| 236 | DTRA | LL/SEQ,POL/DA,,D | Spin-rotation parameter, D(LL), specif. sequ. | Not in use |
| 236 | DOBS | LON,DA/DP,,IPA | Cs diff.by long.sec.lin.mom.,int.over ang.range | Not in use |
| 236 | DOBS | LON,DA/DP,P,IPA | Cs dif.by long.sec.lin.mom.int.over p ang.range | Not in use |
| 236 | DOBS | LON,POL,,ASY | Polarization asymmetry for longitud.polar. | Not in use |
| 236 | DTRA | LON,SIG,,SS | Spin-spin cs, longitudinal to beam direction | Not in use |
| 236 | DOBS | LP,DA/DP,,IPA | Cs diff.by long.sec.lin.mom.,int.over ang.range | Not in use |
| 236 | DOBS | LP,DA/DP,P,IPA | Cs dif.by long.sec.lin.mom.int.over p ang.range | Not in use |
| 236 | DTRA | LP,DP,RSD | Diff.cs w.resp.to longit.sec.mom.of resid.nucl. | Not in use |
| 236 | DTRA | LS/PAR,POL/DA,,K | Spin-transfer parameter, K(LS), partl.reaction | Not in use |
| 236 | DTRA | M+,PY | Product yield, including formation via isom.tra | Not in use |
| 236 | DTRA | M+,PY,,TT | Prod.yield for thick target,incl.via isom.trans | Not in use |
| 236 | DTRA | M+,RI,,LIM | Resonance int., lim.en.range, incl.isom.trans. | Not in use |
| 236 | DOBS | M+,TTY | Thick-target yield, incl. via isomeric trans. | Not in use |
| 236 | DOBS | M+,TTY,,DT | Thick-target yield per unit time incl.isom.tr. | Not in use |
| 236 | DOBS | M+/(DEF),SIG | Cross section,incl.isom.trans.(uncert.reac.def) | This memo |
| 236 | DOBS | M+/UND,SIG | Cross section,incl.via isom.trans.,undef.react. | Not in use |
| 236 | DOBS | M-,TTY | Thick-target yield, excluding isomeric transit. | Not in use |
| 236 | DOBS | M-,TTY,,DT | Product.thick/thin target yield excl.isom.trans | Not in use |
| 236 | DTRA | NL,POL/DA,,ANA | Tensor analyzing power, A(yz) | Not in use |
| 236 | DTRA | NN,POL/DA,,SF | Spin-flip probability S(nn) | Not in use |
| 236 | DOBS | NN,POL/DA,RCL,K | Spin-transfer parameter for recoil nucl., K(NN) | Not in use |
| 236 | DTRA | NN,SIG,,SF | Cross section \* spin-flip probability S(nn) | Not in use |
| 236 | DOBS | NN/PAR,POL/DA,RCL,K | Spin-transf.param.K(NN),rec.nucl.,partl.react. | Not in use |
| 236 | DTRA | NN/SEQ,POL/DA,,D | Spin-depolarization parameter,D(NN),specif.seq. | Not in use |
| 236 | DTRA | PAR,AKE,FF | Av.neutron en.as a fct.of total fragm.energy | Not in use |
| 236 | DOBS | PAR,AKE,G/N | Av.gamma energy as fct.of energ.of emitt.neutr. | Not in use |
| 236 | DOBS | PAR,AKE,N | Average energy for specific group of neutrons | Not in use |
| 236 | ATRA | PAR,DA,\*,RAB | Partial ang.dist.of particle specified\*abun.(nat)/abun.(nucl. 1st term) | CP-N/0162rev |
| 236 | DTRA | PAR,DA,RSD | Partial angular distribution of residual nucl. | This memo |
| 236 | SOBS | PAR,DA/DA,\*+\*/\* | Partl.ang.correlation, relative angle | CP-D/1014 |
| 236 | DOBS | PAR,DA/DE,G | Partial double diff.gamma-emiss.cross-section | Not in use |
| 236 | DOBS | PAR,DA/DE,G,4PI | Partial double diff.gamma-emiss.cross-sect.\*4pi | Not in use |
| 236 | DOBS | PAR,FY/DA,G/G+FF | Par.diff.fis.frag.gam.yieles d/dA(g+fis.frag.) | Not in use |
| 236 | DTRA | PAR,MLT,N | Partial neutron multiplicity | Not in use |
| 236 | DTRA | PAR,POL | Partial polarization | Not in use |
| 236 | DOBS | PAR,POL/DA,,AYY | Partl.tensor anal.power,spins normal scatt.pl. | Not in use |
| 236 | DOBS | PAR,POL/DA,,AZZ | Partl.tensor anal.power,spins parallel to beam | Not in use |
| 236 | DOBS | PAR,POL/DA,,SF | Spin-flip probability, S(nn), partial reaction | Not in use |
| 236 | DTRA | PAR,PY/DA,G | Partial diff.product yield for gammas | Not in use |
| 236 | DTRA | PAR,SIG,A | Partial cross section for alpha group | This memo |
| 236 | DTRA | PAR,SIG,DG | Partial prod. cross section for decay gammas | This memo |
| 236 | DTRA | PAR,SIG,G | Partial gamma-production cross section | This memo |
| 236 | DTRA | PAR,SIG,G,TT | Partial gamma-production cs for thick target | Not in use |
| 236 | DOBS | PAR,TTY/MLT | Partial thick target mult. as fct.of beam curr. | Not in use |
| 236 | DOBS | PAR/(CUM)/UND,SIG | Partial cross section,undef.reac.,uncert.if cum. | Not in use |
| 236 | DOBS | PAR/(DEF),SIG | Partial cross section (uncert.if react.defined) | Not in use |
| 236 | DOBS | PAR/IND,DA,,LEG/1K2 | Part.leg.coef.k\*\*2 d/dA=Sum(a(L)P(L)),dir.form. | Not in use |
| 236 | DOBS | PAR/IND,SIG/RAT | Independent cross section ratio,partl.react. | Not in use |
| 236 | DTRA | PAR/M+,DA,G | Ang.distr.of discrete gammas incl.isom.trans. | Not in use |
| 236 | DOBS | PAR/MAS,FY,LF | Fiss.prod.mass spectrum f.giv.light fr.kin.en. | Not in use |
| 236 | DOBS | PAR/PRE,AKE | Primary frag.avg.kin.energy for given exc.energ | Not in use |
| 236 | DTRA | PAR/PRE,AKE,FF | Avg.kin.energy of prim.frag.for given exc.energ | Not in use |
| 236 | DOBS | PAR/PRE,AKE,LF+HF | Avg.tot.kin.energy of prim.frag for gvn exc.en. | Not in use |
| 236 | DOBS | PAR/PRE,KE | Primary fragm.kinetic.energy for givn sec.energ | Not in use |
| 236 | DOBS | PAR/UND,DA | Partial angular distrib., undefined reaction | Not in use |
| 236 | DOBS | PAR/UND,DA,\* | Partial angular distrib., undefined reaction | Not in use |
| 236 | DOBS | PAR/UND,DA,G | Partial angular distr. of gammas, undef.react. | Not in use |
| 236 | DOBS | PAR/UND,SIG | Partial cross section, undefined reaction | Not in use |
| 236 | DOBS | PR,AKE,N | Average kinetic energy of prompt neutrons | Not in use |
| 236 | DOBS | PR,AKE/DA,N/N+LF | Av.E of pr.neutr.at given ang.(n+light frag.) | Not in use |
| 236 | DOBS | PR,AKE/DE,N/FF | Av.energy of prompt neutr.dep.on fiss.frag.en. | Not in use |
| 236 | DTRA | PR,DA,G,LEG/RS | Leg.coef.4pi/Sig d/dA=1+Sum(a(L)P(L)),pr.gam. | Not in use |
| 236 | DTRA | PR,DA,G,RSD | Ang. distrib. prompt fission gammas rel.90 deg. | Not in use |
| 236 | DTRA | PR,DA,N | Angular distribution of prompt fission neutrons | Not in use |
| 236 | DTRA | PR,DA,N+LF | Diff.prompt fis.neut.mult d/dA(n+light frag.) | Not in use |
| 236 | DOBS | PR,DA,N,RSD | Ang. distrib. prompt fiss. neutrons rel.90 deg. | Not in use |
| 236 | DTRA | PR,DA/DE,N | Double diff.spect of pr.fiss.neutrons d2/dA/dE | Not in use |
| 236 | DOBS | PR,DE,N,MXD | Prompt neut.spect.rel.to Maxw.distr.of giv.temp | Not in use |
| 236 | DOBS | PR,DE,N,RTE | Energy spect.of prompt fiss.neut\*square root(E) | Not in use |
| 236 | DOBS | PR,KEM,N | Temp.of Maxwell.distr.of prompt neutrons | Not in use |
| 236 | DOBS | PR,NU,FF | No.of prompt neutr.em.by fiss.fr.of def.A or Z | Not in use |
| 236 | DOBS | PR,NU,HF | Prompt neutron yield as fctn.of heavy frag.mass | Not in use |
| 236 | DOBS | PR,NU,LF | Prompt neutron yield as fctn.of light frag.mass | Not in use |
| 236 | DOBS | PR,NU/DE,,RTE | Prompt neut.spect. relative to square root(E) | Not in use |
| 236 | DOBS | PR,NU/DE,FF | No.of prompt neutr.em.by fiss.fr.of given E | Not in use |
| 236 | DOBS | PR,NU/DE,HF | No.of prompt neutr.em.by heavy fiss.fr.of giv.E | Not in use |
| 236 | DOBS | PR,NU/DE,LF | No.of prompt neutr.em.by light fiss.fr.of giv.E | Not in use |
| 236 | DOBS | PR,NU/DN | Probab.of emiss.of N prompt neutr.in 1 fiss.ev. | Not in use |
| 236 | MTRA | PR/FRG,NU | Multiplicity of prompt neutrons from the fragment specified | Editorial |
| 236 | DTRA | PR/PAR,DA,G | Prompt partial diff. gamma emiss.cross section | Not in use |
| 236 | DTRA | PR/TER,NU/DE,A | Prompt nu-bar for ternary fission,fn of alpha E | Not in use |
| 236 | DTRA | PR/TER,SPC | Prompt gamma-spectrum from ternary fission | Not in use |
| 236 | DTRA | PRE,AKE/DA,FF | Avg.kinetic energy of prim.frag.,fn.of angle | Not in use |
| 236 | DTRA | PRE,DA,FF | Angular distrib. of primary fission fragments | Not in use |
| 236 | DTRA | PRE,DA,FF,RSD | Ang. distr. of primary fission frag.rel.90 deg. | Not in use |
| 236 | DOBS | PRE,DA/KE,FF | Kin. energy ang.distr. of primary fission frag. | Not in use |
| 236 | DOBS | PRE,DE,LF/HF | Total kinetic energy distr.of fiss.fragm. | Not in use |
| 236 | MTRA | PRE,FY/DE,LF+HF | Diff. primary fission product yield w.r.t. total kinetic energy | Editorial |
| 236 | DTRA | PRE,KEP,A | Most probable kin.en.of pre-neutron emiss.alpha | Not in use |
| 236 | DTRA | PRE/BIN,FY | Primary-fission product yield, binary fission | Not in use |
| 236 | ATRA | PRE/PR/FRG,NU | Multiplicity of prompt neutrons from the primary fragment specified | CP-N/0164 |
| 236 | ATRA | PRV,AKE,\*F | Provisional average kinetic energy of fragment specified | CP-N/0163 |
| 236 | ATRA | PRV,AKE,LF+HF | Provisional average total kinetic energy | CP-N/0163 |
| 236 | ATRA | PRV,FY/DE,LF+HF | Diff. provisional fission product yield w.r.t. total kinetic energy | CP-N/0163 |
| 236 | ATRA | PRV,KE | Provisional kinetic energy | CP-N/0163 |
| 236 | ATRA | SEC,FY/DE,\*F | Secondary fragm.fission yield d/dE(fragm.spec.) | 4C-4/0227 |
| 236 | DTRA | SEC,FY/DE,HF | Post-neut.em.heav.fis.fra.yld dif.w.frag.kin.en. | This memo |
| 236 | DTRA | SEC,FY/DE,LF | Post-neut.em.lig.fis.fra.yld dif.w.frag.kin.en. | This memo |
| 236 | MTRA | SEC,FY/DE,LF+HF | Diff. secondary fission product yield w.r.t. total kinetic energy | Editorial |
| 236 | DOBS | SEC/CHN,FY | Pre-delayed-neutron chain yield | Not in use |
| 236 | DOBS | SEC/CHN,FY/DE | Pre-delayed-neutron chain yield d/d(kin. en.) | Not in use |
| 236 | DTRA | SEQ,INT | Cross section int. over inc.en.,spec.react.seq. | Not in use |
| 236 | DTRA | SEQ,POL/DA,,ANA | Analyzing power for specif.reaction sequence | Not in use |
| 236 | DTRA | SEQ,PY | Product yield for specified reaction sequence | Not in use |
| 236 | DOBS | SEQ/PAR,DA | Partial angular distr. for specif.reaction seq. | Not in use |
| 236 | DTRA | SL/PAR,POL/DA,,K | Spin-transfer parameter, K(SL), partl.reaction | Not in use |
| 236 | DOBS | SPL,AKE | Average kinetic energy of spallation products | Not in use |
| 236 | DTRA | SS/PAR,POL/DA,,ANA | Tensor analyzing power A(xx)/dA, partial | Not in use |
| 236 | DTRA | SS/PAR,POL/DA,,K | Spin-transfer parameter, K(SS), partl.reaction | Not in use |
| 236 | DTRA | SS/SEQ,POL/DA,,D | Spin-rotation parameter, D(SS), specif.sequ. | Not in use |
| 236 | DOBS | TER,AKE,LCP | Avg. kin.energy light chg. part., ternary fiss. | Not in use |
| 236 | DTRA | TER,DE | Energy spectrum of particle in ternary fisssion | Not in use |
| 236 | ATRA | TER,FY/DE,\*F | Ternary fission fragm.yield d/dE(fragm.spec.) | 4C-4/0227 |
| 236 | DOBS | TER,KE,FF | Kin.energ.of fiss.frag.specified,ternary fis. | This memo |
| 236 | DTRA | TER,SIG,,RES | Ternary fission cross section at resonance | Not in use |
| 236 | DTRA | TER,SIG,A | Alpha-emission cross section, ternary fission | Not in use |
| 236 | DTRA | TER,ZP | Most probable charge of ternary fission frag. | Not in use |
| 236 | DOBS | TER/BIN,FY/RAT,A | Ternary/binary fission alpha yield ratio | Not in use |
| 236 | DOBS | TER/BIN,FY/RAT,T | Ternary/binary fission triton yield ratio | Not in use |
| 236 | DTRA | TER/BIN,SIG/RAT,,RES | Ternary/binary cross section ratio at resonance | Not in use |
| 236 | DOBS | TRS,POL,,ASY | Polarization asymmetry for transverse polar. | Not in use |
| 236 | ATRA | TRS,POL/DA/DA/DE,\*/\*/\*+\*,ANA | Transverse vector analyzing power, A(x)/dA1/dA2/dE(relative energies) | CP-N/0168 |
| 236 | DTRA | TRS,SIG,,SS | Spin-spin cs, transverse to beam direction | Not in use |
| 236 | DOBS | UND,SIG/RAT | Cross section ratio, undefined reaction | Not in use |
| 236 | DOBS | UND,SIG/SUM | Cross section sum, undefined reaction | Not in use |

**Distribution:**

a.koning@iaea.org

abhihere@gmail.com

aloks279@gmail.com

bknayak@barc.gov.in

daniela.foligno@oecd-nea.org

dbrown@bnl.gov

draj@barc.gov.in

exfor@oecd-nea.org

franco.michel-sendis@oecd-nea.org

fukahori.tokio@jaea.go.jp

ganesan555@gmail.com

gezg@ciae.ac.cn

iwamoto.osamu@jaea.go.jp

jmwang@ciae.ac.cn

kaltchenko@kinr.kiev.ua

kenya.suyama@oecd-nea.org

kimdh@kaeri.re.kr

kimura.atsushi04@jaea.go.jp

l.vrapcenjak@iaea.org

manuel.bossant@oecd-nea.org

masaaki@nucl.sci.hokudai.ac.jp

michael.fleming@oecd-nea.org

mmarina@ippe.ru

nicolas.soppera@oecd-nea.org

n.otsuka@iaea.org

nrdc@jcprg.org

odsurenn@gmail.com

ogritzay@ukr.net

ogrudzevich@ippe.ru

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

vvvarlamov@gmail.com

v.zerkin@iaea.org

vidyathakur@yahoo.co.in

vsemkova@inrne.bas.bg

yolee@kaeri.re.kr

zholdybayev@inp.kz