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Memo CP-D/743

Date: 3 May 2012
To: Distribution
From: N. Otsuka, M. Mikhaylyukova
Subject: **Revision to EXFOR Formats Manual (SAMPLE)**
Reference: Memo 4C-4/195

Following discussion in the NRDC 2012 Meeting about coding rule for the keyword SAMPLE, an amended 2nd item of the EXFOR Formats Manual SAMPLE is proposed:

2. The general format of the code is : (nuclide, abundance)

Nuclide field: The general format of the code is Z-S-A-X.

Abundance field: The field identifier NAT= or ENR= followed by the isotopic abundance of the natural or enriched sample *normalized to 1 (within uncertainties)*, respectively. Only fixed values (*not ranges*) assumed by the author for obtaining the data are *coded as a language independent floating-point number (see page 4.2)*.

See Memo CP-D/742 for the definition of “language independent floating point number”.

The original expression “embedded blanks will be permitted only at the beginning of a field” which I proposed during the meeting was changed as above because this specific expression is seen in the description of the keywords for which continuation of the coded information to the next record is considerable (i.e., DECAY-DATA and LEVEL-PROP). Language-independent floating-point numbers (See Memo CP-D/742) do not contain a blank.

Corrections proposed by CJD in Memo 4C-4/195 were assessed, and the following subentries have been registered to the EXFOR Feedback List:

1. Illegal opening parenthesis at col.12

(Note: These are forbidden in general according to the EXFOR Formats Manual Chapter 3 “Free text”):

Subentry	Information field
10357.005	(NH4)2U2O...
13922.004	(97.28 %)...

13922.005	(97.28 %)...
13922.006	(97.28 %)...
14150.001	(weight 2...
14150.001	(wight 16...
14187.001	(10B/11B=...
14190.001	(235U-93....
23074.001	(26 MBq) ...
23074.001	(0.2mm) A...
23074.001	(Eu-152,...
23075.001	(0.1 mm t...
23092.001	(87.1+-1....
23098.005	(98.8% of...
23100.001	(H9 chann...
30099.001	(1.1E+6 f...
30928.001	(Gd-155(0...
31501.002	(metallic...
31501.002	(98.1+67....
31501.003	(metallic...
31501.003	(98.1+67....
31501.004	(metallic...
31501.004	(98.1+67....
31501.009	(120.2+80...
31501.010	(120.2+80...
31501.011	(120.2+80...
31591.002	(As2O3 an...
31603.001	(10.20 g/...
31616.001	(Wagner e...
31633.001	(Au)to 0....
31662.002	(0.214 +-...
31662.003	(0.214 +-...
32650.001	(thicknes...
33011.001	(~ 500 mi...
33011.001	(~ 96 mi...
33011.001	(~ 96 mic...
33030.001	(100 micr...
40068.001	(METAL) M...
C1439.001	(56Fe) an...
C1461.001	(1-2 micr...
C1604.001	(CD2)n de...
C1632.014	(48TiO2) ...
C1632.014	(20 mug/c...
C1632.015	(48TiO2) ...
C1632.015	(20 mug/c...
C1632.016	(48TiO2) ...
C1632.016	(20 mug/c...

C1670.001	(470+-60)...
C1705.001	(0.2-2.0 ...
C1724.001	(CH2)n fo...
C1758.001	(CH2)n ta...
C1816.001	(OFHC) co...
D0280.001	(natural ...
D0364.001	(92.5% of...
D0479.001	(0.43%), ...
D0490.001	(Most run...
D0496.001	(12.39 %)...
D0496.001	(12.26%)....
D0505.001	(0.1 or 0...
D0547.001	(96.1% ab...
D0556.001	(99.99% p...
D0634.001	(0.5%), a...
D0634.001	(0.29%) i...
D4198.001	(both >99...
D4237.001	(99.99%, ...
D5047.001	(content ...
D5071.001	(47.2%), ...
D6010.001	(95.7%) +...
D6045.001	(thichnes...
F0258.002	(8.14+-0....
F0535.001	(9.58+-0....
F0535.001	(5.72+-0....
F0667.017	(92.0%)....
F0712.001	(about 12...
F0748.001	(it canno...
F0833.001	(7.3+-0.4...
G3105.001	(2mg/cm**...
L0078.001	(20 mg/cm...

2. ENR= or NAT= should be given

Subentry	Information field
22789.005	(92-U-236,99.845)
22789.005	(92-U-234,,0.00001)
22789.005	(92-U-235,0.047)
22789.005	(92-U-238,0.107)
22789.004	(93-NP-237,100.)
22789.012	(93-NP-237,100.)
22789.013	(93-NP-237,100.)
30704.002	(92-U-233,0.9)
30704.003	(92-U-235,0.9)

30704.004	(94-PU-239,0.9)
D4219.001	(54-XE-131,99.6)

3. Illegal isotopic abundance values

Subentry	Information field
D4249.001	(81-TL-203,NAT=29.52)
D4249.001	(81-TL-205,NAT=70.48)
E1686.002	(26-FE-56,ENR=0)
E1686.003	(26-FE-56,ENR=0)
E1686.004	(26-FE-56,ENR=0)
E1686.008	(26-FE-56,ENR=0)
E1686.009	(26-FE-56,ENR=0)
E1686.010	(26-FE-56,ENR=0)
E1686.014	(26-FE-56,ENR=0)
E1686.015	(26-FE-56,ENR=0)
E1686.016	(26-FE-56,ENR=0)
E1686.017	(26-FE-56,ENR=0)
E1686.018	(26-FE-56,ENR=0)
E1686.019	(26-FE-56,ENR=0)
E1686.020	(26-FE-56,ENR=0)
E1686.021	(26-FE-56,ENR=0)
E1686.022	(26-FE-56,ENR=0)
E1686.023	(26-FE-56,ENR=0)
E1686.024	(26-FE-56,ENR=0)
E1686.025	(26-FE-56,ENR=0)
E1686.026	(26-FE-56,ENR=0)
E1686.027	(26-FE-56,ENR=0)
E1686.028	(26-FE-56,ENR=0)
E1686.029	(26-FE-56,ENR=0)
E1686.030	(26-FE-56,ENR=0)
E1686.031	(26-FE-56,ENR=0)
E1686.042	(26-FE-56,ENR=0)
E1686.043	(26-FE-56,ENR=0)
E1686.044	(26-FE-56,ENR=0)
E1686.047	(26-FE-56,ENR=0)
E1686.048	(26-FE-56,ENR=0)
E1686.049	(26-FE-56,ENR=0)
E1686.052	(26-FE-56,ENR=0)
E1686.053	(26-FE-56,ENR=0)
E1713.001	(26-FE-56,ENR=0)
E1793.001	(12-MG-26,ENR=0)
E2135.002	(28-NI-58,ENR=0)
E2135.003	(50-SN-120,ENR=0)

E2135.004	(28-NI-58 , ENR=0)
E2135.008	(50-SN-120 , ENR=0)
E2140.001	(3-LI-8 , ENR=0)
G0021.001	(57-LA-139 , NAT=99.9%)

4. Illegal nuclide code

Subentry	Information field
32672.001	(30-Zn-67 , ENR=0.954)
32689.001	(30-Zn-67 , ENR=0.954)
D0639.001	(28-Ni-64 , ENR=0.996)

5. Should be under an appropriate keyword

Subentry	Information field
22006.029	(20050716A)
22358.002	(SPSDD , 22354006)
D0275.002	(E-LVL , 64-GD-159)
D0275.003	(E-LVL , 64-GD-159)
D0275.004	(E-LVL , 64-GD-159)
D0456.002	(EN-ERR-DIG)
D0456.002	(ERR-DIG)
T0074.002	(DATA-ERR)

6. Should move to an appropriate subentry

Subentry	Information field
D4239.001	(34-SE-77 , 0.9177)
D4239.001	(34-SE-78 , 0.9858)
D4239.001	(34-SE-80 , 0.999)

7. Illegal blanks

(Note: Except for 31698.004-005, these blanks were not forbidden explicitly in the Formats Manual.)

Subentry	Information field
14110.010	(64-GD-152 , ENR= 0.000108)
14110.010	(64-GD-154 , ENR= 0.009859)
14110.010	(64-GD-155 , ENR= 0.744233)
14110.010	(64-GD-156 , ENR= 0.175674)
14110.010	(64-GD-157 , ENR= 0.037513)
14110.010	(64-GD-158 , ENR= 0.025336)
14110.010	(64-GD-160 , ENR= 0.007278)
14110.012	(64-GD-152 , ENR= 0.000108)

14110.012	(64-GD-154, ENR= 0.009859)
14110.012	(64-GD-155, ENR= 0.744233)
14110.012	(64-GD-156, ENR= 0.175674)
14110.012	(64-GD-157, ENR= 0.037513)
14110.012	(64-GD-158, ENR= 0.025336)
14110.012	(64-GD-160, ENR= 0.007278)
14110.013	(64-GD-152, ENR = 0.000051)
14110.013	(64-GD-154, ENR = 0.000753)
14110.013	(64-GD-155, ENR = 0.013515)
14110.013	(64-GD-156, ENR = 0.073627)
14110.013	(64-GD-157, ENR = 0.696623)
14110.013	(64-GD-158, ENR = 0.194431)
14110.013	(64-GD-160, ENR = 0.021000)
14110.014	(64-GD-152, ENR = 0.000051)
14110.014	(64-GD-154, ENR = 0.000753)
14110.014	(64-GD-155, ENR = 0.013515)
14110.014	(64-GD-156, ENR = 0.073627)
14110.014	(64-GD-157, ENR = 0.696623)
14110.014	(64-GD-158, ENR = 0.194431)
14110.014	(64-GD-160, ENR = 0.021000)
14110.015	(64-GD-152, ENR = 0.000051)
14110.015	(64-GD-154, ENR = 0.000753)
14110.015	(64-GD-155, ENR = 0.013515)
14110.015	(64-GD-156, ENR = 0.073627)
14110.015	(64-GD-157, ENR = 0.696623)
14110.015	(64-GD-158, ENR = 0.194431)
14110.015	(64-GD-160, ENR = 0.021000)
14110.016	(64-GD-152, ENR= 0.000108)
14110.016	(64-GD-154, ENR= 0.009859)
14110.016	(64-GD-155, ENR= 0.744233)
14110.016	(64-GD-156, ENR= 0.175674)
14110.016	(64-GD-157, ENR= 0.037513)
14110.016	(64-GD-158, ENR= 0.025336)
14110.016	(64-GD-160, ENR= 0.007278)
14110.020	(64-GD-152, ENR= 0.000108)
14110.020	(64-GD-154, ENR= 0.009859)
14110.020	(64-GD-155, ENR= 0.744233)
14110.020	(64-GD-156, ENR= 0.175674)
14110.020	(64-GD-157, ENR= 0.037513)
14110.020	(64-GD-158, ENR= 0.025336)
14110.020	(64-GD-160, ENR= 0.007278)
14110.021	(64-GD-152, ENR= 0.000108)
14110.021	(64-GD-154, ENR= 0.009859)
14110.021	(64-GD-155, ENR= 0.744233)
14110.021	(64-GD-156, ENR= 0.175674)

14110.021	(64-GD-157, ENR= 0.037513)
14110.021	(64-GD-158, ENR= 0.025336)
14110.021	(64-GD-160, ENR= 0.007278)
14110.022	(64-GD-152, ENR= 0.000108)
14110.022	(64-GD-154, ENR= 0.009859)
14110.022	(64-GD-155, ENR= 0.744233)
14110.022	(64-GD-156, ENR= 0.175674)
14110.022	(64-GD-157, ENR= 0.037513)
14110.022	(64-GD-158, ENR= 0.025336)
14110.022	(64-GD-160, ENR= 0.007278)
14110.023	(64-GD-152, ENR= 0.000108)
14110.023	(64-GD-154, ENR= 0.009859)
14110.023	(64-GD-155, ENR= 0.744233)
14110.023	(64-GD-156, ENR= 0.175674)
14110.023	(64-GD-157, ENR= 0.037513)
14110.023	(64-GD-158, ENR= 0.025336)
14110.023	(64-GD-160, ENR= 0.007278)
31698.004	(79-AU-198, NAT=1.)
31698.005	(79-AU-198, NAT=1.)

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