

**Nuclear Data Section
International Atomic Energy Agency
P.O.Box 100, A-1400 Vienna, Austria**

Memo CP-D/740

Date: 13 April 2012
To: Distribution
From: N. Otsuka, V. Semkova, B. Pritychenko
Subject: Comparison between EXFOR and Karlsruhe MACS compilation

NNDC has received a list of references compiled in the KADoNiS (Karlsruhe Astrophysical Database of Nucleosynthesis in Stars) [1], and it is an update of Karlsruhe compilations [2-3] for compilation of measured and recommended $kT = 30$ keV Maxwellian averaged cross section (MACS). NNDC has compared the list with the EXFOR database, and created a list of references possibly missing in EXFOR. NDS has received the list of about 170 articles, and analyzed the situation in detail. This memo reports a part of the result.

The following table shows references which are missing in the EXFOR entry but give same or similar tabulated values in the EXFOR entry. Centres are asked to compare the reference with the EXFOR entry, and make necessary revisions.

Some articles report Maxwellian averaged cross sections derived from original measured values complemented by other experimental results and/or model calculation. It is still an open question whether it must be treated as derived data (i.e., DERIV in SF9).

Entry	REFERENCE missing in X4	Same value in	Similar value in
10211	C,70HELSINKI,2,265,1970		002
10868	R,ORNL-TM-7058,1979	017-021 (elastic strength function is missing)	007-011
10875	R,ORNL-TM-7058,1979	003,005,007, 009,011	012-016 (different binning)
12751	J,PR/C,27,2556,1983	002-004	
12921	C,84KNOX,,774,1984 (=AIP-125)	002,003	
12972	R,ORNL-TM-10841,1988		006-007 Ref. missing Capture missing
20374	J,AAA,37,197,1974	018-019	
20555	J,NSE,60,390,1976	005-006	004
21808	J,AJ,265,417,1983	011-013	
21890	J,NSE,87,48,1984	002	
21899	J,AJ,300,41,1986		002-004

21906	J,AJ,286,810,1984		002-004
21925	J,ANE,16,589,1989		002-005
21937	J,ASP,97,95,1983		002-003
22008	R,KFK-3969,3,1985	002	
22009	J,AAA,162,330,1986	002	
22010	R,KFK-3969,14	002-006	
22037	J,AAA,155,247,1986	024-025	023
22037	J,AAA,167,186,1986	005,007,016, 018-019, 021-022	
22271	J,AJ,372,683,1991	005-007	
22307	C,98VOLOS,,174,1999	022	020,023
22345	J,NP/A,621,231C,1997	005-006	
22356	C,94AQUI,,201,1994		(Preliminary MACS given.)
22400	C,98VOLOS,,,204,1999		002,003
22401	J,AJ,507,997,1998	003	002
22424	J,AJ,528,573,2000		002
22436	J,NP/A,621,262,1997	002	003
22459	J,PR/C,51,3465,1995		002
22499	R,FZKA-6194,1998	002-027	
22893	J,PRL,93,161103,2004	003	
22907	R,FZKA-6961,2004	002,003	
22907	R,FZKA-6962,2004	005-008	
22916	R,FZKA-6996,2004	002-010	
22917	R,FZKA-6961,2004	003,004	
22926	R,FZKA-6962,2004	003-007	
23064	R,FZKA-7411,2008	004	
30506	J,AJ/L,178,93,1972		008-011
40890	R,INDC(CCP)-292,35,1989	002-003	(English translation)
40967	R,INDC(CCP)-280,15,1988	002-004	(English translation)

References

- [1] I. Dillmann et al., AIP Conf. Ser. **819** (2006)123; <http://www.kadonis.org/>
- [2] Z. Bao et al., Atom. Data Nucl. Data Tables **36** (1987)411.
- [3] Z. Bao et al., Atom. Data Nucl. Data Tables **76** (2000)70.

Distribution:

blokhin@ippe.ru
cgc@ciae.ac.cn
chiba@earth.sgu.ac.jp
emmeric.dupont@oecd.org
fukahori.tokio@jaea.go.jp
ganesan555@gmail.com
gezg@ciae.ac.cn
hongwei@ciae.ac.cn
jhchang@kaeri.re.kr
j.roberts@iaea.org
kaltchenko@kinr.kiev.ua
katakura.junichi@jaea.go.jp
kato@nucl.sci.hokudai.ac.jp
kiralyb@atomki.hu
l.vrapcenjak@iaea.org
kiyoshi.matsumoto@oecd.org
manuel.bossant@oecd.org
manokhin@ippe.ru
mmarina@ippe.ru
mwherman@bnl.gov
nicolas.soppera@oecd.org
nklimova@kinr.kiev.ua
n.otsuka@iaea.org

nrdc@jcprg.org
oblozinsky@bnl.gov
ogritzay@kinr.kiev.ua
otto.schwerer@aon.at
pritychenko@bnl.gov
pronyaev@ippe.ru
r.forrest@iaea.org
samaev@obninsk.ru
s.babykina@polyn.kiae.su
scyang@kaeri.re.kr
s.simakov@iaea.org
stakacs@atomki.hu
stanislav.hlavac@savba.sk
sv.dunaeva@gmail.com
taova@expd.vniief.ru
tarkanyi@atomki.hu
vvvarlamov@gmail.com
vlasov@kinr.kiev.ua
v.semkova@iaea.org
v.zerkin@iaea.org
yolee@kaeri.re.kr
zhuangyx@ciae.ac.cn

(Int. Symp. on Capture Gamma Ray Spectroscopy and
Related Topics, Knoxville, Tennessee, 10-14 Sep 1984)
=AIP Conf.Proceedings No.125