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Memo CP-D/581

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To: Distribution
From: N. Otsuka

Subject: Experimental data for spallation model benchmark

A number of experimental data sets have been collected for benchmark of spallation model (transport and evaporation model – e.g. INC, QMD etc.) by J. C. David (CEA Saclay). Some of them are missing in EXFOR and I summarized them in a table (See next page). Numerical data for compilation are available by request. Further analysis (relation with current EXFOR entry etc.) is necessary for neutron multiplicity by C.-M. Herbach et al. and A. Letourneau et al. (marked by “???” in the table).

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Targ.	Proj	Reac.	Quant.	Emin	Emax	Lab.	Author	Publication	Vol	Page	Year	Status	Source	Action	Data file
Al	p	x+pi-	DAE	7.3E+02		1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
Al	p	x+pi+	DAE	7.3E+02		1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
Al	p	x+n	MLT	1.2E+03		?	C.-M.Herbach+	R,JUEL-SPEZ			2001			???	herbach
Al	p	x+pi-	DAE	2.2E+03		2JPNLEP	H.En'yo+	J,PL/B	159	1	1985	Quantity not defined in EXFOR		-	enyo
Au	p	x+a	DAE	2.5E+03		2GERJUL	A.Letourneau+	J,NP/A	712	133	2002	To be compiled (D0579.006)	TABLE	In compilation	letourneau
Au	p	x+d	DAE	2.5E+03		2GERJUL	A.Letourneau+	J,NP/A	712	133	2002	To be compiled (D0579.003)	TABLE	In compilation	letourneau
Au	p	x+h	DAE	2.5E+03		2GERJUL	A.Letourneau+	J,NP/A	712	133	2002	To be compiled (D0579.005)	TABLE	In compilation	letourneau
Au	p	x+Li6	DAE	2.5E+03		2GERJUL	A.Letourneau+	J,NP/A	712	133	2002	To be compiled (D0579.008)	TABLE	In compilation	letourneau
Au	p	x+Li7	DAE	2.5E+03		2GERJUL	A.Letourneau+	J,NP/A	712	133	2002	To be compiled (D0579.009)	TABLE	In compilation	letourneau
Au	p	x+p	DAE	2.5E+03		2GERJUL	A.Letourneau+	J,NP/A	712	133	2002	To be compiled (D0579.002)	TABLE	In compilation	letourneau
Au	p	x+t	DAE	2.5E+03		2GERJUL	A.Letourneau+	J,NP/A	712	133	2002	To be compiled (D0579.004)	TABLE	In compilation	letourneau
C	p	x+pi-	DAE	7.3E+02		1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
C	p	x+pi+	DAE	7.3E+02		1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
Cu	p	x+pi-	DAE	7.3E+02		1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
Cu	p	x+pi+	DAE	7.3E+02		1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
Fe	p	prod	CS	1.7E+01	2.6E+03	2FR SAT+	R.Michel+	J,NSTS	2	242	2002	Will be checked by NDS		In analysis	michel02
Fe	p	x+n	CSN	8.0E+02		2FR SAT	S.Leray+	J,PR/C	65	044621	2002	To be compiled (in O0977)	TABLE	Compile!	leray
Fe	p	x+n	MLT	1.2E+03		?	C.-M.Herbach+	R,JUEL-SPEZ			2001			???	herbach
Fe	p	x+n	CSN	1.2E+03		2FR SAT	S.Leray+	J,PR/C	65	044621	2002	To be compiled (in O0977)	TABLE	Compile!	leray
Fe	p	x+n	CSN	1.6E+03		2FR SAT	S.Leray+	J,PR/C	65	044621	2002	To be compiled (in O0977?)	TABLE	Compile!	leray
Ni	p	x+a	DAE	1.8E+02		2GERJUL	B.Piskor-Ignatowicz+	W			2009	To be compiled (in D0580.006)	TABLE	In compilation	goldenbaum
Ni	p	x+d	DAE	1.8E+02		2GERJUL	B.Piskor-Ignatowicz+	W			2009	To be compiled (in D0580.003)	TABLE	In compilation	goldenbaum
Ni	p	x+h	DAE	1.8E+02		2GERJUL	B.Piskor-Ignatowicz+	W			2009	To be compiled (D0580.005)	TABLE	In compilation	goldenbaum
Ni	p	x+p	DAE	1.8E+02		2GERJUL	B.Piskor-Ignatowicz+	W			2009	To be compiled	TABLE	In compilation	goldenbaum

													(D0580.002)	
Ni	p	x+t	DAE	1.8E+02	2GERJUL	B.Piskor-Ignatowicz+	W			2009	To be compiled (in D0580.004)	TABLE	In compilation	goldenbaum
Pb	p	x+pi-	DAE	7.3E+02	1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
Pb	p	x+pi+	DAE	7.3E+02	1USABRK	D.R.F.Cochran+	J,PR/D	6	3085	1972	Data sent to NNDC	TABLE	Compile!	cochran
Pb	p	x+n	CSN	8.0E+02	2FR SAT	S.Leray+	J,PR/C	65	044621	2002	O0892.003	TABLE	Revise!	leray
Pb	p	x+n	MLT	1.2E+03	2GERJUL	A.Letourneau+	J,NIM/B	170	299	2000			???	letourneau
Pb	p	x+n	CSN	1.2E+03	2FR SAT	S.Leray+	J,PR/C	65	044621	2002	O0892.003	TABLE	Revise!	leray
Pb	p	x+n	CSN	1.6E+03	2FR SAT	S.Leray+	J,PR/C	65	044621	2002	O0892.003	TABLE	Revise!	leray
Ta	p	x+a	DAE	1.2E+03	2GERGSI	C.-M.Herbach+	J,NP/A	765	426	2006	To be compiled (in O1305?)	CURVE	Compile!	herbach
Ta	p	x+d	DAE	1.2E+03	2GERGSI	C.-M.Herbach+	J,NP/A	765	426	2006	To be compiled (in O1305?)	CURVE	Compile!	herbach
Ta	p	x+h	DAE	1.2E+03	2GERGSI	C.-M.Herbach+	J,NP/A	765	426	2006	To be compiled (in O1305?)	CURVE	Compile!	herbach
Ta	p	x+p	DAE	1.2E+03	2GERGSI	C.-M.Herbach+	J,NP/A	765	426	2006	To be compiled (in O1305?)	CURVE	Compile!	herbach
Ta	p	x+t	DAE	1.2E+03	2GERGSI	C.-M.Herbach+	J,NP/A	765	426	2006	To be compiled (in O1305?)	CURVE	Compile!	herbach
U	p	x+n	MLT	1.2E+03	?	C.-M.Herbach+	R,JUEL-SPEZ			2001			???	herbach
Zr	p	x+n	MLT	1.2E+03	?	C.-M.Herbach+	R,JUEL-SPEZ			2001			???	herbach