

EXFOR Completeness for Prompt Fission Neutron Multiplicities

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We checked completeness of EXFOR against experimental prompt fission neutron multiplicities compiled by Norman Holden [1-2]. CJD, CNDC, NEA DB and NNDC are invited for assessment and compilation of 11 articles in the appended table.

References

- [1] N.E .Holden et al., BNL-NCS-35513-R,1984 =IAEA-TECDOC-335,248,1984
- [2] N.E. Holden et al., BNL-NCS-36379,1985 (Abstract is in Rad.Eff.96(1986)289.

Experimental prompt fission neutron multiplicities compiled by N. Holden [1-2]

If the $\bar{\nu}$ compiled by Holden is not reported in the article, it could be a value derived from a measured value by Holden, and the article could be not for compilation. (Some characters printed in Holden's reports are not well visible, and there could be typos in the $\bar{\nu}$ in the table.)

- Shaded experimental works are compiled in EXFOR.
- The column "36379" and "35513-R" give the citation numbers in BNL-NCS-363709 and BNL-NCS-35513-R.
- An EXFOR entry number with * show that the reference is not the primary reference of the entry.
- "yes" in the column "CINDA" means the reference is compiled in CINDA.

35513	36379	Authors	Reference	EXFOR	CINDA	$\bar{\nu}$ -bar compiled by Holden	Remark
6		L.I.Prokhorova+	J,SJA,30,307,1971	40033*			
7		R.Gwin+	J,NSE,76,49,1980	30772*			
11		B.Nurpeisov+	J,SJA,34,603,1973	40189			
12		J.Boldeman+	R,AAEC/E-172,1967	30046			
13	9	S.C.Fultz+	J,PR,152,1046,1966	12345			
14	47	D.W.Colvin+	C.65SALZBURG,2,25,1965	21454			
15		D.S.Mather+	J,NP,66,149,1965	21135			
16	48	J.C.Hopkins+	J,NP,48,433,1963	12326			
17		A.DeVolpi+	C,66PARIS,1,297,1967	(NNDC)	yes	0.640(11) for 235U/252Cf	
18		H.Conde	J,AF,29,293,1965	20025			
19		D.S.Mather+	J,PR,133,B1403,1964	21252*			
20		J.W.Meadows+	J,PR,126,197,1962	12419			
21		K.E.Bolodin+	J,SJA,33,1045,1972	40148			
25	5	A.H.Jaffey+	J,NP/A,145,1,1970	10125			
26		S.N.Belnky+	J,SJA,55,528,1983	40674			

27		H.Conde+	J,JNE,25,331,1971	20037		
28		A.C.Popeko+	J,SNP,24,245,1976	(CJD)	1.99(3) for 238U	c.f. Memo CP-D/867
29		S.N.Hwang+	J,ASI,23,46,1976	(CNDC)	1.96(3) for 238U	c.f. Memo CP-D/867
30	49	I.Asplund-Nilsson+	J,NSE,15,213,1963	20073		
31		R.Sher+	J,JNE/A,12,101,1960	(NNDC)	yes	2.10(8) for 238U
32		B.D.Kuzminov+	J,JET,10,290,1960	(CJD)		2.08(8) for 238U
33		K.W.Geiger+	J,CJP,32,498,1954	(NNDC)		2.26(16) for 238U
34		D.A.Hicks+	J,PR,101,1016,1956	13715		
35		C.J.Orth	J,NSE,43,54,1971	10115		
36		J.W.Boldeman	W,BOLDEMAN,198410	30772		
37	11	H.Zhang+	J,NSE,86,315,1984	30609		
38		J.Frehaut+	R,CEA-R-4626,1974	20488		
39	40	H.Zhang+	J,CNP,1,9,1979	30536		
40		E.Baron+	C,66PARIS,2,57,1966	21495		
41		B.C.Diven+	C,61VIENNA,1,111,1961	(NNDC)	yes	2.167(36) for 240Pu
42		A.Moat+	J,JNE/AB,15,102,1961	21252*		
43	21	B.C.Diven+	J,PR,101,1012,1956	12337		
44	38	G.Edwards+	J,ANE,9,127,1982	21833		
45		L.Prokhorova+	J,SJA,25,1369,1968	40242		
46	6	V.I.Lebedev+	J,SJA,5,1019,1958	40400		
47	7	K.C.Cuninghame	J,JIN,4,1,1957	(NEADB)	yes	3(0.5) for 241Am
48	8	R.E.Howe+	J,NSE,77,454,1981	10993		Extrapolation to thermal energy?
49	10	N.I.Kroshkin+	J,SJA,29,790,1970	40064		
50	12	J.Halperin+	J,NSE,75,56,1980	10605		
51	14	W.W.T.Crane+	J,PR,101,1804,1956	13717		
52	15	K.D.Zhuraviev+	C,73KIEV,4,57,1973	40297		

53	17	R.Schmidt+	J,NP/A,395,29,1983	21851*		
54	18	V.V.Golushko+	J,SJA,34,178,1973	40260		
55	19	L.I.Prokhorova+	J,SJA,33,875,1972	40140		
56		V.I.Bolshov+	J,SJA,17,715,1964	40219		
57	22	R.E.Howe+	J,NP/A,407,193,1983	12851		
58	23	R.W.Stoughton+	J,NSE,50,169,1973	10605		
59	24	D.W.Dakovskii+	J,SNP,18,371,1974	40203		
60	25	M.C.Thompson	J,PR/C,2,763,1970	10358		
61	26	J.W.Boldeman	C,73KIEV,4,114,1973	30367		
	27	V.N.Kosyakov	J,SJA,33,903,1972	40126		
	28	R.Pyle	?	?	3.72(16) for 249Bk, 2.92(19) for 246Cf	Gordon Conference paper (1957)
	29	M.Dakovskii+	J,SNP,17,360,1973	40188		
	30	J.P.Unik+	C,73ROCH,2,19,1973	(NNDC)	yes	4.4 for 249Cf, 3.7 for 254Fm, 3.2 for 256Fm
	31	K.E.Volodin+	J,SNP,15,17,1972	40125		
	32	B.V.Kurchatov+	J,SNP,14,528,1972	40145		
	33	Yu.S.Zamyatnin+	C,70HELSINKI,2,183,1970	40064*		
	34	K.F.Flynn+	J,HCA,52,2216,1969	(NEADB)		6(1.5) for 249Cf
	35	D.C.Hoffman+	J,PR/C,21,637,1980	10901		
	36	J.R.Smith	W,SMITH,19830320	10941		
	37	R.R.Spencer+	J,NSE,80,603,1982	10954		
	39	B.M.Aleksandrov+	C,80KIEV,4,119,1980	41595		
	41	H.Bozorgmanesh	T,BOZORGMANESH,1979	10717		
	42	J.W.Boldeman	J,NSE,55,188,1974	(NDS)		3.747(15) for 252Cf Supersedes 30046.006?
	43	E.J.Axton	C,72VIENNA,,261,1972		yes	Eval. in CINDA
	44	G.K.Mehta+	J,PR/C,7,373,1973	23213		
	45	A.DeVolpi+	J,PR/C,1,683,1970	10166		

46	P.H.White+	J,JNE,22,73,1968	21198			
50	K.F.Flynn+	J,PR/C,11,1676,1975	10516			
51	K.F.Flynn+	J,JIN,38,661,1976	(NNDC)		4.7 for 253Es, 4.2 for 254Es	for addition to EXFOR 13340
52	D.D.Bogdanov+	R,JINR-P15-81-706,1981	(CJD)	yes	4(1) for 244Fm and 246Fm	
53	Yu.A.Lazarev+	J,PL/B,52,321,1974	41559			
54	G.R.Choppin+	J,PR,102,766,1956	13649			
55	G.M.Ter-Akopian+	J,NIM,190,119,1981	41056*			
56	M.Dakovskii+	J,SNP,16,641,1973	(CJD)	yes	3.73(18) for 256Fm	for addition to EXFOR 40141
57	K.F.Flynn+	J,PR/C,5,1725,1972	(NNDC)		3(1) for 256Fm	for addition to EXFOR 13454
58	J.P.Balagna+	C,73ROCH,2,191,1973	10300			
59	E.Cheifetz+	J,PR/C,3,2017,1971	10140			