

Results from T. K. Tuyet et al. "Comparison of the TRIPOLI-4[®], DIANE, and MCNP6 Monte Carlo Codes on the Barber & George Benchmark for Photonuclear Reactions", Nucl. Sci. Eng., 2023

Target	Energy of electron source [MeV]	Neutron yield per 10 ⁶ incident electrons								
		Experiment		TRIPOLI-4 [®] ENDF7U			TRIPOLI-4 [®] IAEA-19			
		mean	unc.	mean	std	Diff-exp (%)	mean	std	Diff-exp (%)	
C-I	26	31	5	24.92	0.35	-19.6				
	28.3	60	9	51.42	0.48	-14.3				
	34.4	173	26	153.93	0.78	-11.0				
Al-I	22.2	46	7	36.44	0.54	-20.8				
	28.3	210	32	162.58	0.93	-22.6				
	34.3	430	65	332.48	1.33	-22.7				
Cu-A	13.9	1.1	0.2	0.65	0.03	-40.9	0.71	0.03	-35.5	
	16.3	3.6	0.5	2.76	0.06	-23.3	2.83	0.05	-21.4	
	19.9	11.8	1.8	8.49	0.08	-28.1	8.62	0.09	-26.9	
	23.5	21.1	3.2	14.19	0.11	-32.7	14.38	0.1	-31.8	
	25.9	26.3	3.9	17.22	0.11	-34.5	17.82	0.1	-32.2	
	28.2	30.9	4.6	19.55	0.11	-36.7	20.03	0.1	-35.2	
Cu-I	16.1	30	5	39.97	0.49	33.2				
	21.2	260	39	258.26	0.79	-0.7				
	28.3	820	123	729.65	1.23	-11.0				
	34.4	1290	194	1108.18	1.37	-14.1				
	35.5	1390	209	1170.66	1.43	-15.8				
	Cu-II	16.1	50	5	67.33	0.73	34.7			
21.2		430	65	447.33	1.27	4.0				
28.3		1390	209	1316.58	1.7	-5.3				
34.4		2370	356	2099.36	2.06	-11.4				
Cu-III	16.1	70	11	85.24	0.86	21.8				
	21.2	530	80	564	1.36	6.4				
	28.3	1800	270	1681.91	2.12	-6.6				
	34.4	2930	440	2721.16	2.7	-7.1				
Cu-IV	16.1	100	15	97.01	0.91	-3.0	101.24	0.98	1.2	
	21.2	600	90	640.56	1.6	6.8	653.22	1.73	8.9	
	28.3	2130	320	1908.51	2.42	-10.4	1962.29	2.4	-7.9	
	34.4	3350	503	3103.53	3.04	-7.4	3205.57	3.08	-4.3	
Ta-I	10.3	80	12	7.24	0.19	-91.0	6.48	0.18	-91.9	
	18.7	520	78	512.9	0.75	-1.4	539.01	0.78	3.7	
	28.3	1380	207	1286.76	1.2	-6.8	1367.74	1.38	-0.9	
	34.3	1810	272	1563.75	1.37	-13.6	1665.78	1.57	-8.0	
Pb-I	18.7	730	110	554.58	0.76	-24.0	548.66	0.76	-24.8	
	28.3	1690	254	1222.46	1.14	-27.7	1199.47	1.12	-29.0	
	34.5	2120	318	1452.32	1.31	-31.5	1422.85	1.24	-32.9	
Pb-II	18.7	1320	198	1353.96	1.54	2.6				
	28.3	3450	518	2595.33	1.83	-24.8				
	34.5	4720	708	3382.89	2.22	-28.3				
Pb-III	18.7	1770	266	1353.96	1.54	-23.5				
	28.3	4690	704	3595.26	2.5	-23.3				
	34.5	6460	969	4816.91	2.94	-25.4				
Pb-IV	18.7	2100	317	1572.65	1.77	-25.1				
	28.3	5370	806	4250.28	2.87	-20.9				
	34.5	7770	1166	5768.33	3.49	-25.8				
Pb-VI	18.7	2500	375	1572.65	1.77	-37.1	1820.16	2.14	-27.2	
	28.3	6670	1000	4250.28	2.87	-36.3	4978.41	3.35	-25.4	
	34.5	9000	1350	5768.33	3.49	-35.9	6839.35	4.1	-24.0	
U-I	16.4	1070	161	923.92	1.26	-13.7				
	21.1	2330	350	1899.43	1.73	-18.5				
	28.4	3860	579	2830.46	2.24	-26.7				
	35.5	4880	732	3284.51	2.34	-32.7				
U-II	16.4	1950	293	1654.95	1.91	-15.1				
	21.1	4310	647	3611.14	2.79	-16.2				
	28.4	7850	1178	6058.91	3.87	-22.8				
	35.5	10735	1610	7847.34	4.39	-26.9				
U-III	11.5	380	57	311.7	1.38	-18.0	342.2	1.38	-9.9	
	16.4	2530	380	2135.33	2.47	-15.6	2306.29	2.66	-8.8	
	21.1	5900	885	4732.83	3.49	-19.8	5070.55	3.63	-14.1	
	28.4	10460	1569	8184.05	4.71	-21.8	9103.73	4.96	-13.0	
35.5	14940	2241	10921.03	5.13	-26.9	12515.23	6.12	-16.2		