

TABLE A-3a - AIR					$\bar{Z} = 7.78$		TABLE A-3b - WATER					$\bar{Z} = 7.51$	
$\rho = 1.205 \text{ kg/m}^3 \text{ (at NTP)}$							$\rho = 1000 \text{ kg/m}^3$						
$3.006 \times 10^{26} \text{ elect./kg}$							$3.343 \times 10^{26} \text{ elect./kg}$						
Photon energy	Interaction coefficients		Average energy		Average stopping power	Photon energy	Interaction coefficients		Average energy		Average stopping power		
$h\nu$	[cm ² /g]		transf.	abs.	\bar{S}	$h\nu$	[cm ² /g]		transf.	abs.	\bar{S}		
	$\left(\frac{\mu}{\rho}\right)$	$\left(\frac{\mu_{ab}}{\rho}\right)$	\bar{E}_{tr}	\bar{E}_{ab}	*		$\left(\frac{\mu}{\rho}\right)$	$\left(\frac{\mu_{ab}}{\rho}\right)$	\bar{E}_{tr}	\bar{E}_{ab}	*		
[keV]			[keV]			[keV]			[keV]				
1	3673.	3672.	1.00			1	4083.	4082.	1.00				
1.5	1227.	1226.	1.50		90.1	1.5	1395.	1394.	1.50		105.		
2	543.7	542.6	2.00		79.9	2	627.4	626.1	2.00		92.9		
3	165.6	164.7	2.98		66.1	3	194.7	193.8	2.99		76.7		
4	78.80	77.28	3.92		56.6	4	82.74	81.92	3.96		65.5		
5	40.29	39.32	4.88		49.7	5	42.13	41.46	4.92		57.4		
6	23.17	22.47	5.82		44.5	6	24.13	23.55	5.86		51.3		
8	9.642	9.168	7.61		37.0	8	9.982	9.532	7.64		42.5		
10	4.910	4.533	9.23		31.8	10	5.066	4.684	9.25		36.5		
15	1.522	1.242	12.2		24.2	15	1.568	1.269	12.1		27.8		
20	.7334	.4942	13.5		19.7	20	.7613	.5016	13.2		22.6		
30	.3398	.1395	12.3		15.1	30	.3612	.1411	11.7		17.3		
40	.2429	.0625	10.3		13.3	40	.2629	.0637	9.70		15.4		
50	.2053	.0382	9.31		13.1	50	.2245	.0396	8.82		15.3		
60	.1861	.0289	9.33		13.9	60	.2046	.0305	8.96		16.4		
80	.1658	.0236	11.4		15.8	80	.1833	.0255	11.2		18.7		
100	.1540	.0231	15.0		15.6	100	.1706	.0253	14.8		18.3		
150	.1356	.0249	27.6		11.8	150	.1505	.0276	27.5		13.5		
200	.1234	.0267	43.4		8.72	200	.1370	.0297	43.3		9.93		
300	.1068	.0287	80.8		5.76	300	.1187	.0320	80.8		6.54		
400	.0955	.0295	124.		4.46	400	.1061	.0328	124.		5.06		
500	.0871	.0297	171.		3.73	500	.0969	.0330	171.		4.22		
550	.0836	.0296	195.		3.48	550	.0930	.0329	195.		3.94		
662	.0771	.0293	252.		3.07	662	.0857	.0326	252.		3.47		
800	.0707	.0288	327.		2.74	800	.0787	.0321	327.		3.10		
[MeV]			[MeV]			[MeV]			[MeV]				
1	.0636	.0279	.440		2.47	1	.0707	.0310	.440		2.79		
1.25	.0569	.0267	.588	.586	2.25	1.25	.0632	.0297	.588	.586	2.54		
1.5	.0518	.0255	.741	.739	2.12	1.5	.0575	.0283	.741	.739	2.39		
2	.0445	.0235	1.06	1.05	1.98	2	.0494	.0261	1.06	1.06	2.22		
3	.0358	.0206	1.74	1.72	1.86	3	.0397	.0228	1.74	1.73	2.07		
4	.0308	.0187	2.46	2.43	1.82	4	.0340	.0207	2.46	2.43	2.01		
5	.0275	.0174	3.22	3.17	1.81	5	.0303	.0192	3.21	3.16	1.98		
6	.0251	.0164	4.00	3.92	1.81	6	.0276	.0180	3.99	3.91	1.97		
8	.0221	.0152	5.64	5.48	1.81	8	.0242	.0165	5.62	5.47	1.96		
10	.0205	.0145	7.37	7.10	1.82	10	.0222	.0157	7.33	7.07	1.95		
15	.0180	.0135	11.9	11.2	1.86	15	.0193	.0144	11.8	11.2	1.96		
20	.0171	.0132	16.6	15.5	1.89	20	.0182	.0139	16.5	15.3	1.97		
30	.0163	.0129	26.3	23.7	1.94	30	.0171	.0134	26.1	23.5	1.99		
40	.0161	.0127	36.2	31.7	1.98	40	.0167	.0131	36.0	31.3	2.01		
50	.0161	.0127	46.1	39.3	2.01	50	.0167	.0130	45.9	38.8	2.02		
60	.0162	.0126	56.1	46.6	2.04	60	.0167	.0128	55.8	45.9	2.03		
80	.0164	.0124	76.0	60.3	2.08	80	.0169	.0125	75.8	59.2	2.05		
100	.0168	.0123	96.1	72.9	2.12	100	.0172	.0123	95.8	71.3	2.06		

*Av. Stopping Power in [MeV cm²g⁻¹] for the spectrum of electrons produced in the medium by photons of energy $h\nu$