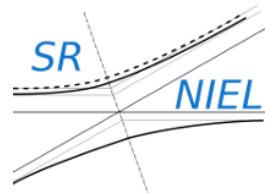
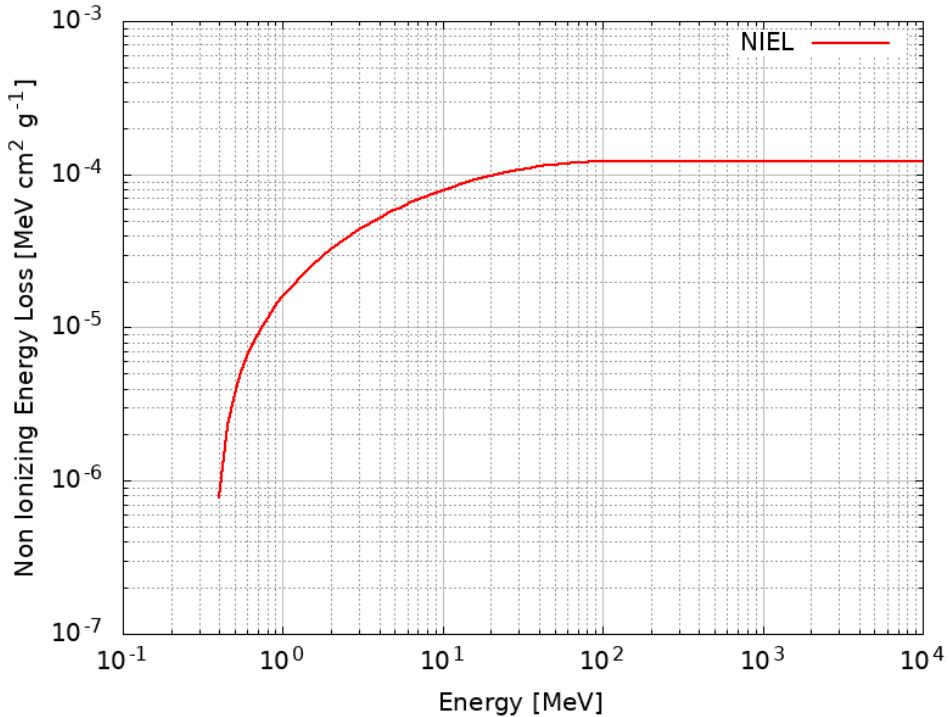


SR (screened relativistic) NIEL (non ionizing energy loss) Calculator

Electrons: SR-NIEL – 7 ver. 11.0 - 15.September.2025



Input Parameters	
Electrons in Si	
Displacement Threshold Energies [eV]:	40.00;
Minimum Energy [MeV]:	1.0e+00
Maximum Energy [MeV]:	1.0e+04
Form Factor Model :	Exponential
Particle Fluence [cm ⁻²]:	1.00e+00



Energy (MeV)	NIEL (MeV cm ² g ⁻¹)	NIEL Dose* (MeV g ⁻¹)	NIEL Dose* (Gy)
1.0000e-01	0.0000e+00	0.0000e+00	0.0000e+00
1.5000e-01	0.0000e+00	0.0000e+00	0.0000e+00
2.0000e-01	0.0000e+00	0.0000e+00	0.0000e+00
2.5000e-01	0.0000e+00	0.0000e+00	0.0000e+00
3.0000e-01	0.0000e+00	0.0000e+00	0.0000e+00
3.5000e-01	0.0000e+00	0.0000e+00	0.0000e+00
4.0000e-01	7.8150e-07	7.8150e-07	1.2524e-16
4.5000e-01	2.2757e-06	2.2757e-06	3.6470e-16
5.0000e-01	3.7145e-06	3.7145e-06	5.9527e-16
5.5000e-01	5.1034e-06	5.1034e-06	8.1785e-16
6.0000e-01	6.4462e-06	6.4462e-06	1.0330e-15
6.5000e-01	7.7459e-06	7.7459e-06	1.2413e-15
7.0000e-01	9.0050e-06	9.0050e-06	1.4431e-15
7.5000e-01	1.0226e-05	1.0226e-05	1.6387e-15
8.0000e-01	1.1410e-05	1.1410e-05	1.8285e-15
8.5000e-01	1.2560e-05	1.2560e-05	2.0127e-15
9.0000e-01	1.3676e-05	1.3676e-05	2.1917e-15
9.5000e-01	1.4762e-05	1.4762e-05	2.3657e-15
1.0000e+00	1.5817e-05	1.5817e-05	2.5348e-15
1.5000e+00	2.4999e-05	2.4999e-05	4.0062e-15
2.0000e+00	3.2308e-05	3.2308e-05	5.1776e-15
2.5000e+00	3.8338e-05	3.8338e-05	6.1439e-15
3.0000e+00	4.3447e-05	4.3447e-05	6.9627e-15
3.5000e+00	4.7865e-05	4.7865e-05	7.6707e-15
4.0000e+00	5.1747e-05	5.1747e-05	8.2927e-15
4.5000e+00	5.5201e-05	5.5201e-05	8.8463e-15
5.0000e+00	5.8307e-05	5.8307e-05	9.3440e-15
5.5000e+00	6.1124e-05	6.1124e-05	9.7955e-15
6.0000e+00	6.3698e-05	6.3698e-05	1.0208e-14
6.5000e+00	6.6065e-05	6.6065e-05	1.0587e-14
7.0000e+00	6.8252e-05	6.8252e-05	1.0938e-14
7.5000e+00	7.0284e-05	7.0284e-05	1.1263e-14
8.0000e+00	7.2178e-05	7.2178e-05	1.1567e-14
8.5000e+00	7.3951e-05	7.3951e-05	1.1851e-14
9.0000e+00	7.5616e-05	7.5616e-05	1.2118e-14
9.5000e+00	7.7184e-05	7.7184e-05	1.2369e-14
1.0000e+01	7.8664e-05	7.8664e-05	1.2606e-14
1.5000e+01	9.0023e-05	9.0023e-05	1.4427e-14
2.0000e+01	9.7544e-05	9.7544e-05	1.5632e-14
2.5000e+01	1.0293e-04	1.0293e-04	1.6495e-14
3.0000e+01	1.0695e-04	1.0695e-04	1.7139e-14
3.5000e+01	1.1004e-04	1.1004e-04	1.7634e-14
4.0000e+01	1.1244e-04	1.1244e-04	1.8020e-14
4.5000e+01	1.1435e-04	1.1435e-04	1.8325e-14
5.0000e+01	1.1587e-04	1.1587e-04	1.8568e-14
5.5000e+01	1.1708e-04	1.1708e-04	1.8764e-14
6.0000e+01	1.1807e-04	1.1807e-04	1.8922e-14
6.5000e+01	1.1887e-04	1.1887e-04	1.9050e-14

7.0000e+01	1.1952e-04	1.1952e-04	1.9155e-14
7.5000e+01	1.2006e-04	1.2006e-04	1.9240e-14
8.0000e+01	1.2050e-04	1.2050e-04	1.9311e-14
8.5000e+01	1.2087e-04	1.2087e-04	1.9369e-14
9.0000e+01	1.2117e-04	1.2117e-04	1.9418e-14
9.5000e+01	1.2142e-04	1.2142e-04	1.9458e-14
1.0000e+02	1.2163e-04	1.2163e-04	1.9491e-14
1.5000e+02	1.2252e-04	1.2252e-04	1.9635e-14
2.0000e+02	1.2265e-04	1.2265e-04	1.9656e-14
2.5000e+02	1.2263e-04	1.2263e-04	1.9652e-14
3.0000e+02	1.2257e-04	1.2257e-04	1.9642e-14
3.5000e+02	1.2250e-04	1.2250e-04	1.9631e-14
4.0000e+02	1.2244e-04	1.2244e-04	1.9621e-14
4.5000e+02	1.2238e-04	1.2238e-04	1.9613e-14
5.0000e+02	1.2234e-04	1.2234e-04	1.9605e-14
5.5000e+02	1.2229e-04	1.2229e-04	1.9598e-14
6.0000e+02	1.2226e-04	1.2226e-04	1.9592e-14
6.5000e+02	1.2222e-04	1.2222e-04	1.9587e-14
7.0000e+02	1.2219e-04	1.2219e-04	1.9582e-14
7.5000e+02	1.2217e-04	1.2217e-04	1.9578e-14
8.0000e+02	1.2214e-04	1.2214e-04	1.9574e-14
8.5000e+02	1.2212e-04	1.2212e-04	1.9571e-14
9.0000e+02	1.2210e-04	1.2210e-04	1.9568e-14
9.5000e+02	1.2209e-04	1.2209e-04	1.9565e-14
1.0000e+03	1.2207e-04	1.2207e-04	1.9563e-14
1.5000e+03	1.2196e-04	1.2196e-04	1.9546e-14
2.0000e+03	1.2191e-04	1.2191e-04	1.9537e-14
2.5000e+03	1.2187e-04	1.2187e-04	1.9531e-14
3.0000e+03	1.2185e-04	1.2185e-04	1.9527e-14
3.5000e+03	1.2183e-04	1.2183e-04	1.9525e-14
4.0000e+03	1.2182e-04	1.2182e-04	1.9522e-14
4.5000e+03	1.2181e-04	1.2181e-04	1.9521e-14
5.0000e+03	1.2180e-04	1.2180e-04	1.9520e-14
5.5000e+03	1.2180e-04	1.2180e-04	1.9518e-14
6.0000e+03	1.2179e-04	1.2179e-04	1.9518e-14
6.5000e+03	1.2178e-04	1.2178e-04	1.9517e-14
7.0000e+03	1.2178e-04	1.2178e-04	1.9516e-14
7.5000e+03	1.2178e-04	1.2178e-04	1.9516e-14
8.0000e+03	1.2177e-04	1.2177e-04	1.9515e-14
8.5000e+03	1.2177e-04	1.2177e-04	1.9515e-14
9.0000e+03	1.2177e-04	1.2177e-04	1.9514e-14
9.5000e+03	1.2177e-04	1.2177e-04	1.9514e-14
1.0000e+04	1.2176e-04	1.2176e-04	1.9513e-14

* The medium has to be thick enough to fully absorb the kinetic energy of recoil nuclei.