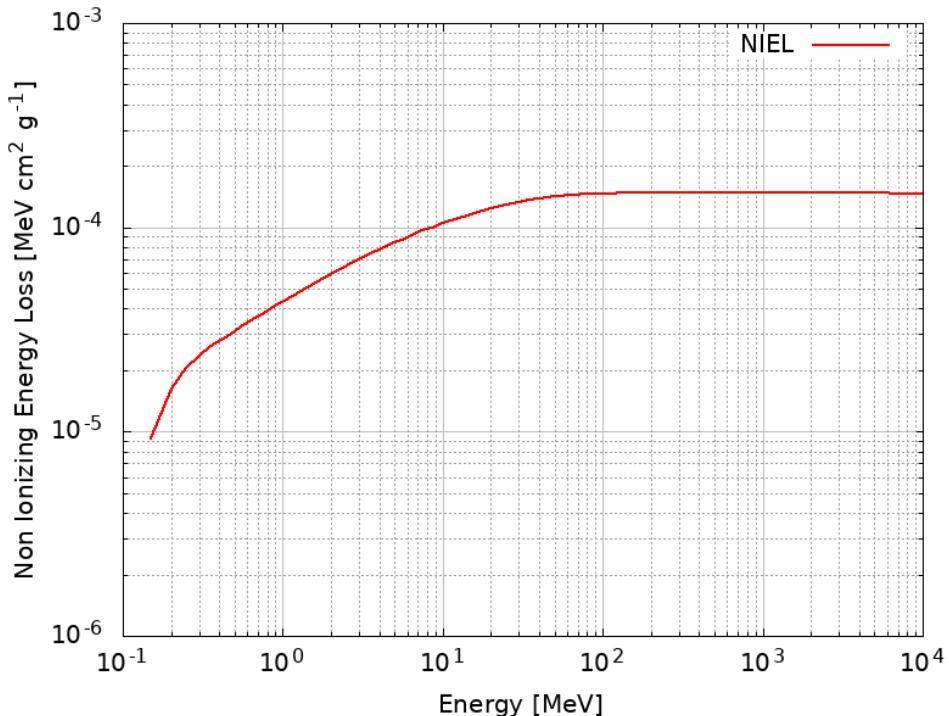


SR (screened relativistic) NIEL (non ionizing energy loss) Calculator

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



Input Parameters	
Electrons in Si	
Displacement Threshold Energies [eV]:	10.00;
Minimum Energy [MeV]:	1.0e+01
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	9.2512e-06	9.2512e-06	1.4826e-15
2.0000e-01	1.6277e-05	1.6277e-05	2.6086e-15
2.5000e-01	2.0454e-05	2.0454e-05	3.2780e-15
3.0000e-01	2.3411e-05	2.3411e-05	3.7518e-15
3.5000e-01	2.5748e-05	2.5748e-05	4.1263e-15
4.0000e-01	2.7730e-05	2.7730e-05	4.4439e-15
4.5000e-01	2.9486e-05	2.9486e-05	4.7253e-15
5.0000e-01	3.1088e-05	3.1088e-05	4.9820e-15
5.5000e-01	3.2576e-05	3.2576e-05	5.2205e-15
6.0000e-01	3.3977e-05	3.3977e-05	5.4450e-15
6.5000e-01	3.5306e-05	3.5306e-05	5.6580e-15
7.0000e-01	3.6575e-05	3.6575e-05	5.8613e-15
7.5000e-01	3.7792e-05	3.7792e-05	6.0564e-15
8.0000e-01	3.8963e-05	3.8963e-05	6.2441e-15
8.5000e-01	4.0093e-05	4.0093e-05	6.4252e-15
9.0000e-01	4.1186e-05	4.1186e-05	6.6003e-15
9.5000e-01	4.2244e-05	4.2244e-05	6.7699e-15
1.0000e+00	4.3270e-05	4.3270e-05	6.9343e-15
1.5000e+00	5.2139e-05	5.2139e-05	8.3555e-15
2.0000e+00	5.9190e-05	5.9190e-05	9.4856e-15
2.5000e+00	6.5024e-05	6.5024e-05	1.0420e-14
3.0000e+00	6.9981e-05	6.9981e-05	1.1215e-14
3.5000e+00	7.4279e-05	7.4279e-05	1.1904e-14
4.0000e+00	7.8064e-05	7.8064e-05	1.2510e-14
4.5000e+00	8.1438e-05	8.1438e-05	1.3051e-14
5.0000e+00	8.4478e-05	8.4478e-05	1.3538e-14
5.5000e+00	8.7239e-05	8.7239e-05	1.3981e-14
6.0000e+00	8.9764e-05	8.9764e-05	1.4385e-14
6.5000e+00	9.2089e-05	9.2089e-05	1.4758e-14
7.0000e+00	9.4240e-05	9.4240e-05	1.5103e-14
7.5000e+00	9.6239e-05	9.6239e-05	1.5423e-14
8.0000e+00	9.8105e-05	9.8105e-05	1.5722e-14
8.5000e+00	9.9852e-05	9.9852e-05	1.6002e-14
9.0000e+00	1.0149e-04	1.0149e-04	1.6265e-14
9.5000e+00	1.0304e-04	1.0304e-04	1.6513e-14
1.0000e+01	1.0450e-04	1.0450e-04	1.6747e-14
1.5000e+01	1.1573e-04	1.1573e-04	1.8547e-14
2.0000e+01	1.2319e-04	1.2319e-04	1.9742e-14
2.5000e+01	1.2853e-04	1.2853e-04	2.0598e-14
3.0000e+01	1.3253e-04	1.3253e-04	2.1238e-14
3.5000e+01	1.3559e-04	1.3559e-04	2.1730e-14
4.0000e+01	1.3799e-04	1.3799e-04	2.2113e-14
4.5000e+01	1.3988e-04	1.3988e-04	2.2416e-14
5.0000e+01	1.4139e-04	1.4139e-04	2.2658e-14
5.5000e+01	1.4260e-04	1.4260e-04	2.2852e-14
6.0000e+01	1.4358e-04	1.4358e-04	2.3009e-14
6.5000e+01	1.4437e-04	1.4437e-04	2.3137e-14

7.0000e+01	1.4502e-04	1.4502e-04	2.3241e-14
7.5000e+01	1.4555e-04	1.4555e-04	2.3326e-14
8.0000e+01	1.4599e-04	1.4599e-04	2.3396e-14
8.5000e+01	1.4635e-04	1.4635e-04	2.3454e-14
9.0000e+01	1.4665e-04	1.4665e-04	2.3502e-14
9.5000e+01	1.4690e-04	1.4690e-04	2.3541e-14
1.0000e+02	1.4710e-04	1.4710e-04	2.3574e-14
1.5000e+02	1.4798e-04	1.4798e-04	2.3715e-14
2.0000e+02	1.4811e-04	1.4811e-04	2.3736e-14
2.5000e+02	1.4808e-04	1.4808e-04	2.3731e-14
3.0000e+02	1.4802e-04	1.4802e-04	2.3720e-14
3.5000e+02	1.4795e-04	1.4795e-04	2.3709e-14
4.0000e+02	1.4788e-04	1.4788e-04	2.3699e-14
4.5000e+02	1.4783e-04	1.4783e-04	2.3690e-14
5.0000e+02	1.4778e-04	1.4778e-04	2.3682e-14
5.5000e+02	1.4774e-04	1.4774e-04	2.3676e-14
6.0000e+02	1.4770e-04	1.4770e-04	2.3670e-14
6.5000e+02	1.4766e-04	1.4766e-04	2.3664e-14
7.0000e+02	1.4763e-04	1.4763e-04	2.3659e-14
7.5000e+02	1.4761e-04	1.4761e-04	2.3655e-14
8.0000e+02	1.4758e-04	1.4758e-04	2.3651e-14
8.5000e+02	1.4756e-04	1.4756e-04	2.3648e-14
9.0000e+02	1.4754e-04	1.4754e-04	2.3645e-14
9.5000e+02	1.4753e-04	1.4753e-04	2.3642e-14
1.0000e+03	1.4751e-04	1.4751e-04	2.3639e-14
1.5000e+03	1.4740e-04	1.4740e-04	2.3622e-14
2.0000e+03	1.4735e-04	1.4735e-04	2.3613e-14
2.5000e+03	1.4731e-04	1.4731e-04	2.3607e-14
3.0000e+03	1.4729e-04	1.4729e-04	2.3604e-14
3.5000e+03	1.4727e-04	1.4727e-04	2.3601e-14
4.0000e+03	1.4726e-04	1.4726e-04	2.3599e-14
4.5000e+03	1.4725e-04	1.4725e-04	2.3597e-14
5.0000e+03	1.4724e-04	1.4724e-04	2.3596e-14
5.5000e+03	1.4723e-04	1.4723e-04	2.3595e-14
6.0000e+03	1.4723e-04	1.4723e-04	2.3594e-14
6.5000e+03	1.4722e-04	1.4722e-04	2.3593e-14
7.0000e+03	1.4722e-04	1.4722e-04	2.3592e-14
7.5000e+03	1.4721e-04	1.4721e-04	2.3592e-14
8.0000e+03	1.4721e-04	1.4721e-04	2.3591e-14
8.5000e+03	1.4721e-04	1.4721e-04	2.3591e-14
9.0000e+03	1.4720e-04	1.4720e-04	2.3590e-14
9.5000e+03	1.4720e-04	1.4720e-04	2.3590e-14
1.0000e+04	1.4720e-04	1.4720e-04	2.3590e-14

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