

Benchmark #2

500 keV Fe on Fe

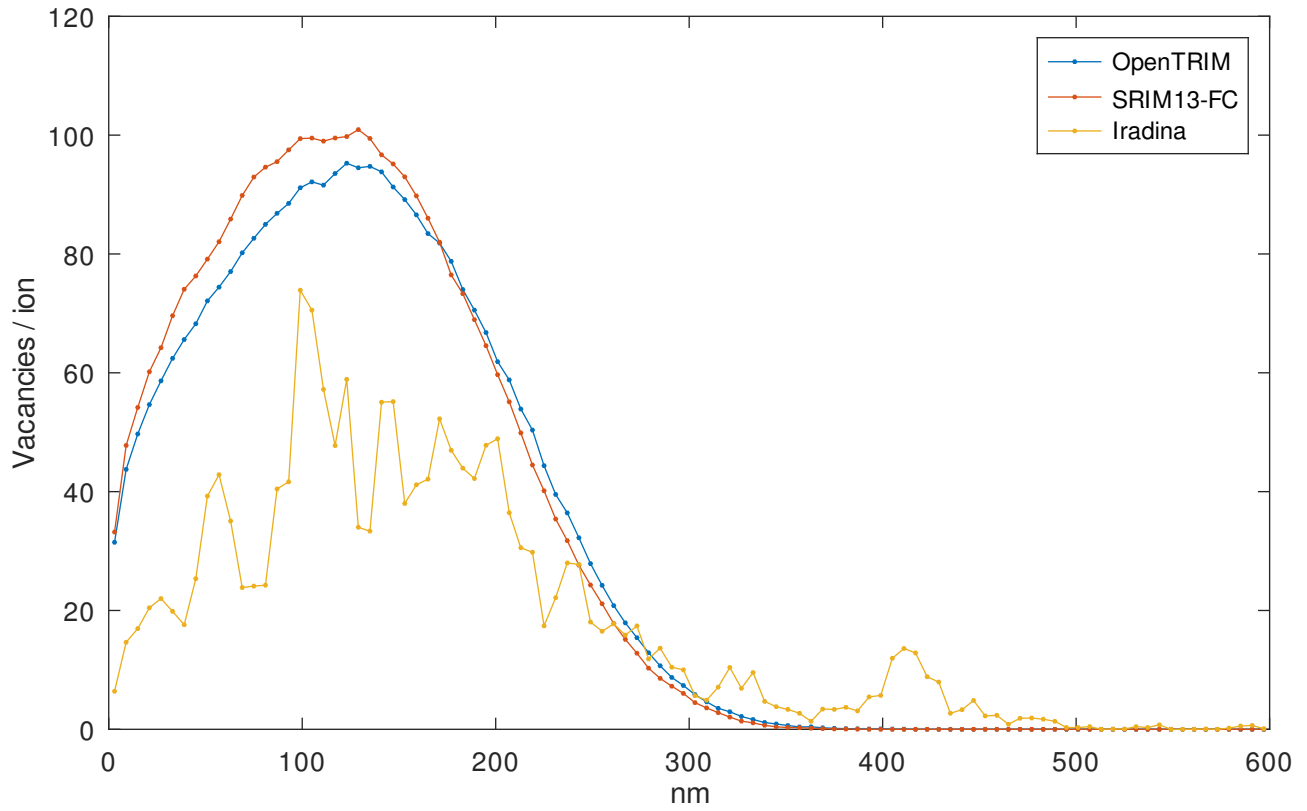
Ion energy E0 = 500000 eV

Target depth = 600 nm

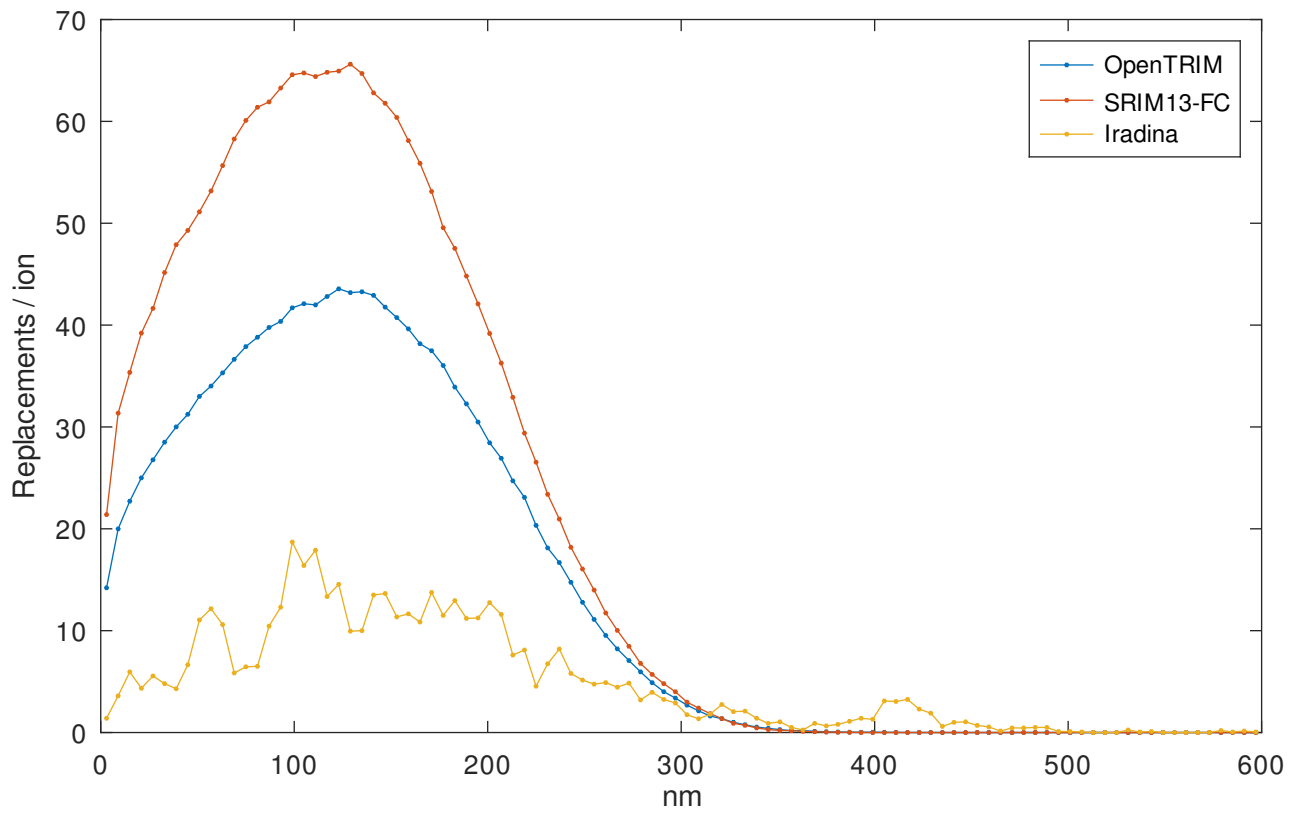
Summary Table

Quantity	OpenTRIM	SRIM13-FC	Iradina
V(Fe)	3.1e+03	3.21e+03	1.8e+03
R(tot)	1.42e+03	2.09e+03	480
I(Fe)	0.999	0.999	1
EI(Fe)/E0	0.267	0.262	0
EI(r)/E0	0.158	0.155	0
EI/E0	0.425	0.417	0.183
EPh(Fe)/E0	0.006	0.00544	0
EPh(r)/E0	0.567	0.562	0
EPh(tot)/E0	0.573	0.567	0.215
1 - (EI+EPh)/E0	0.00112	0.0157	0.602

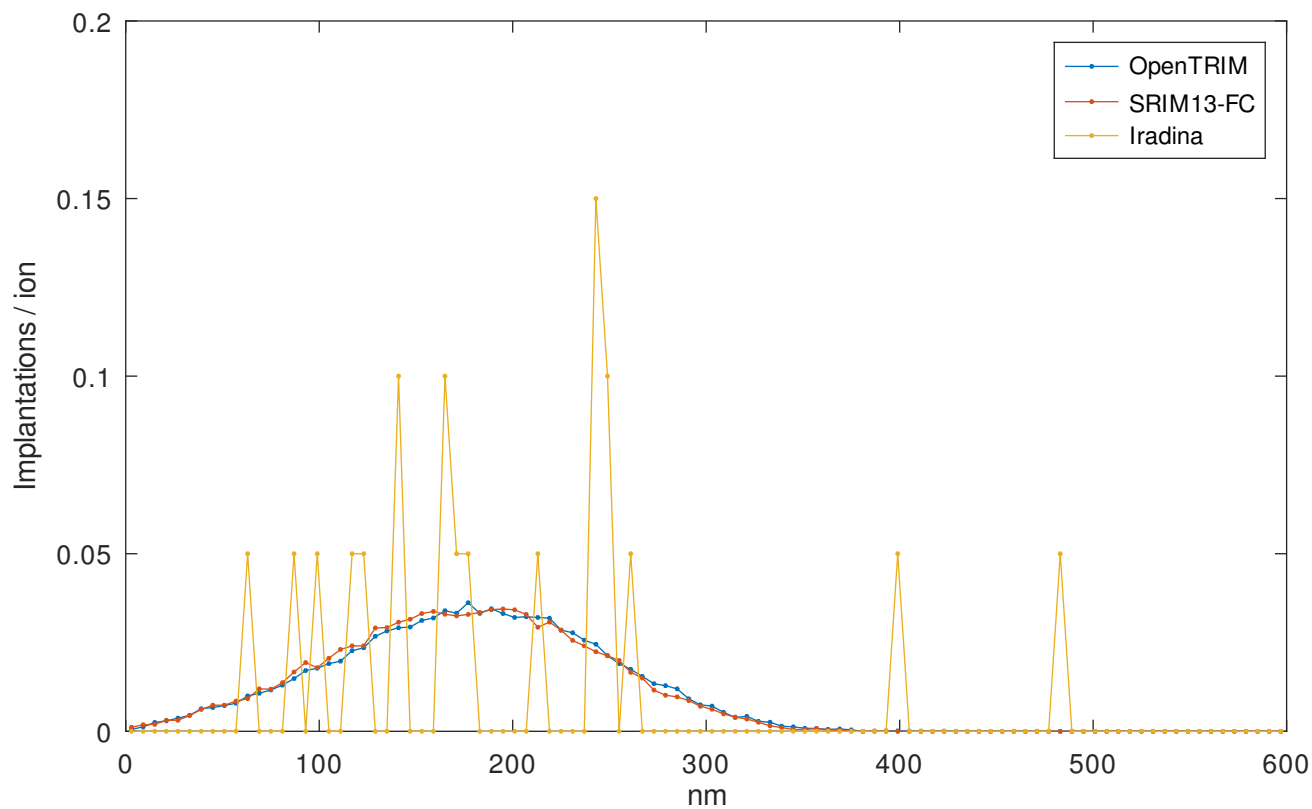
Vacancies of Fe in Fe



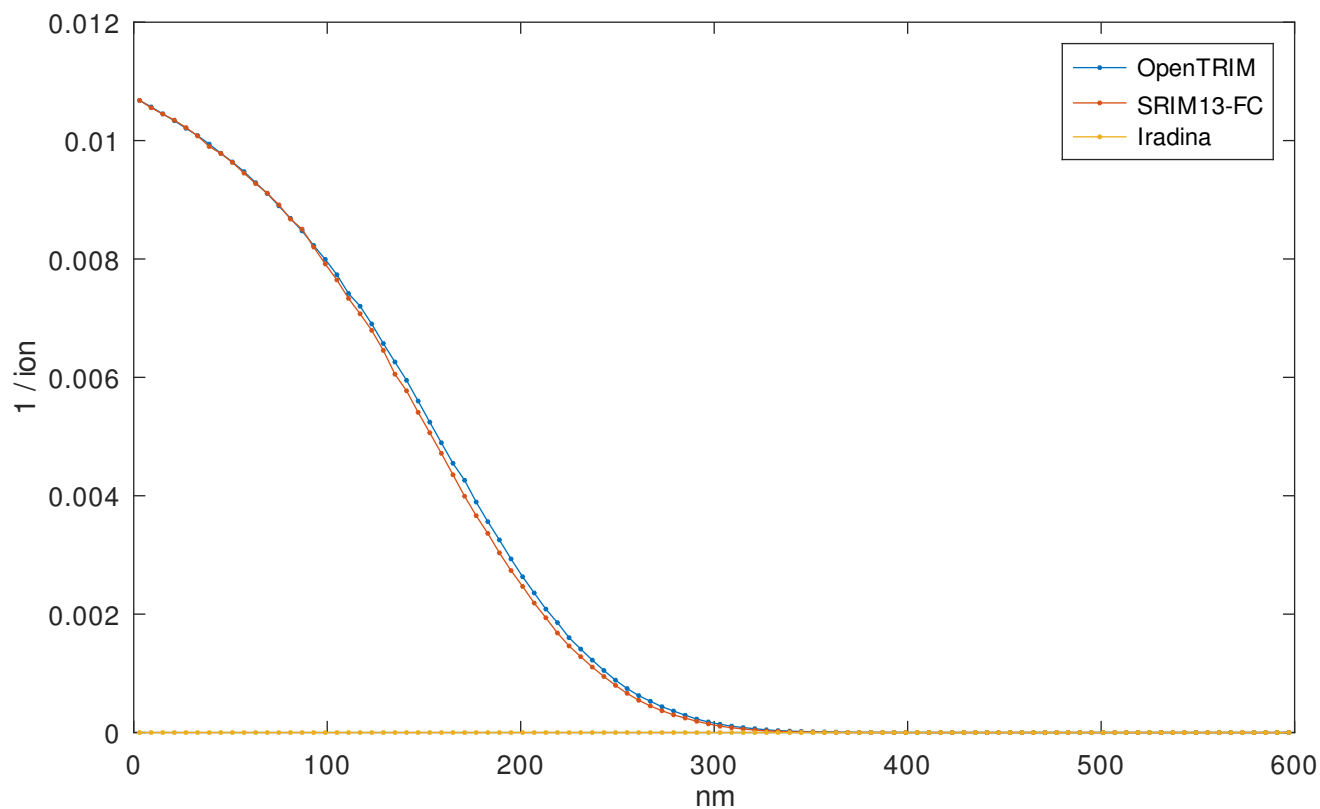
Replacements



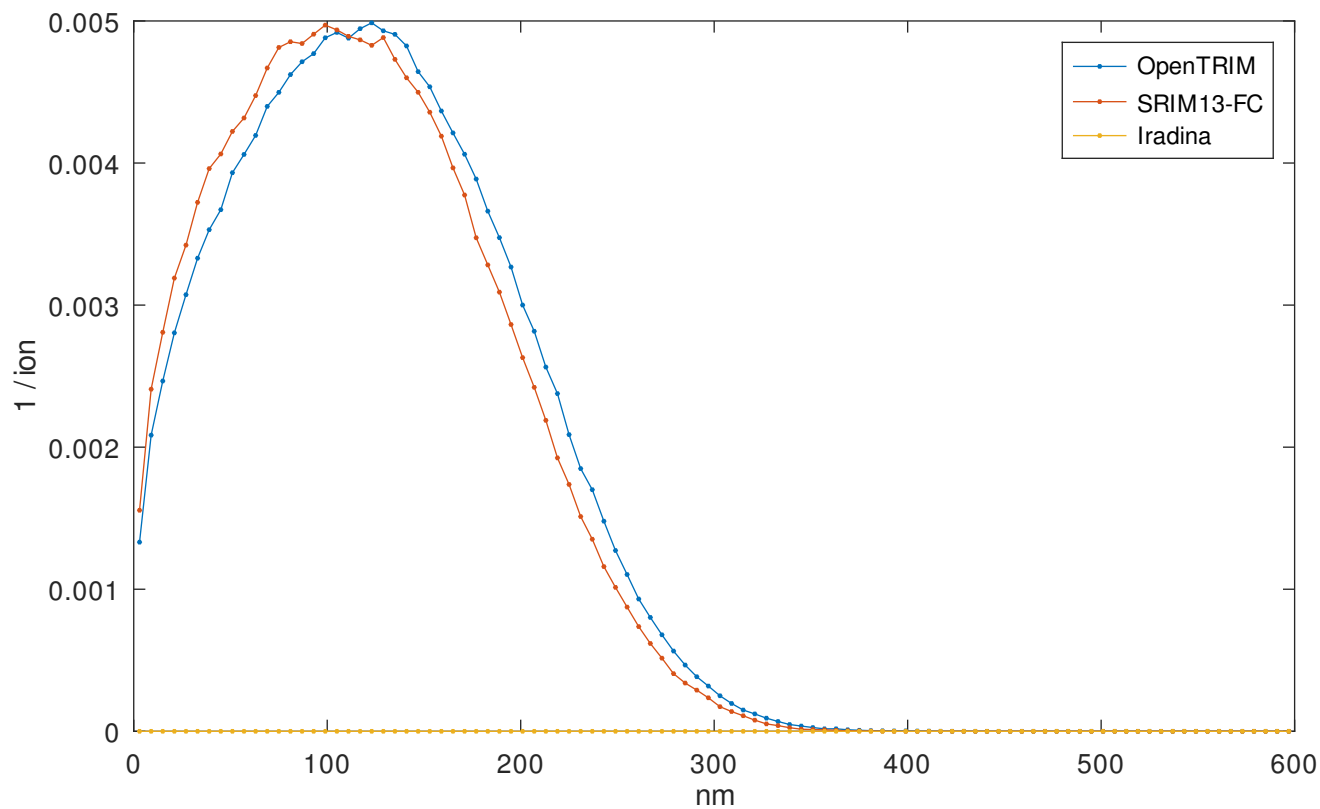
Implanted Fe ion



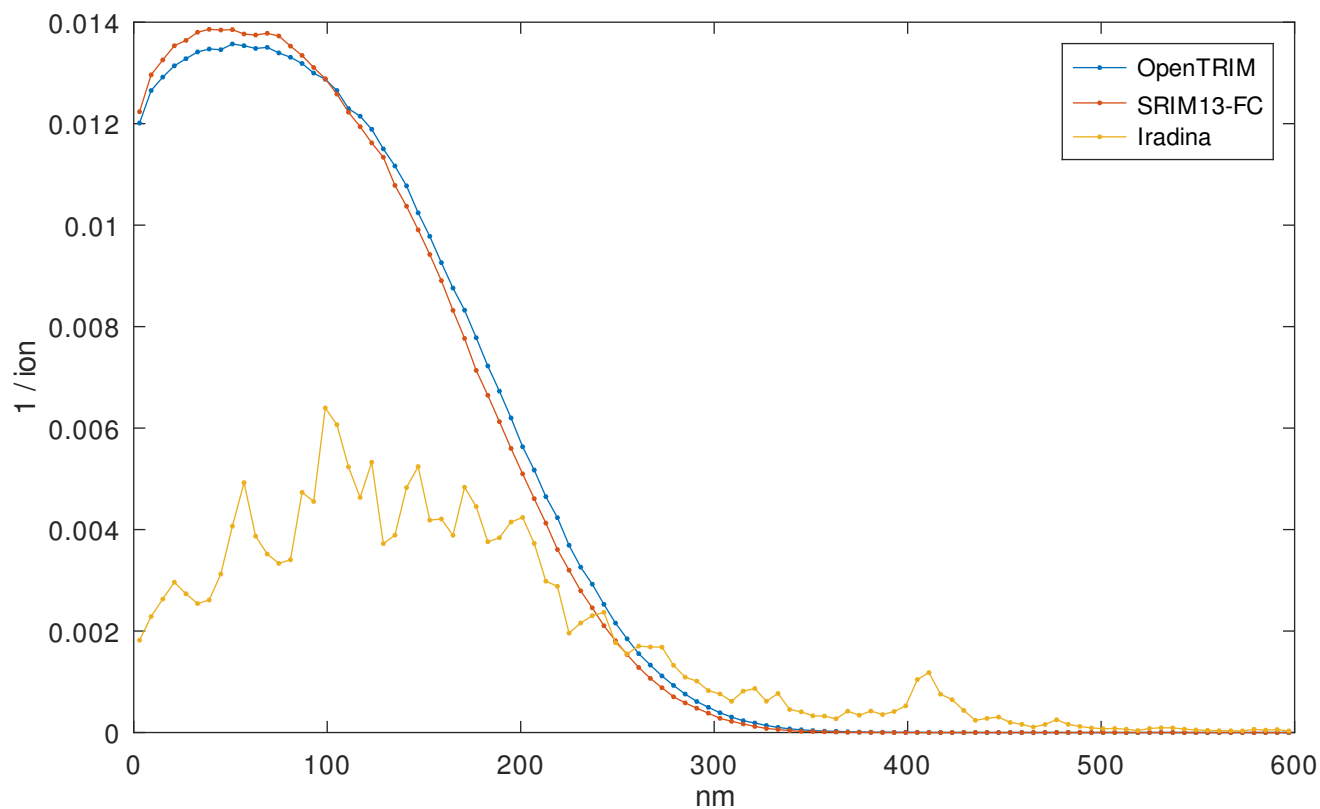
Ionization fraction E_I/E_0 by Fe ion



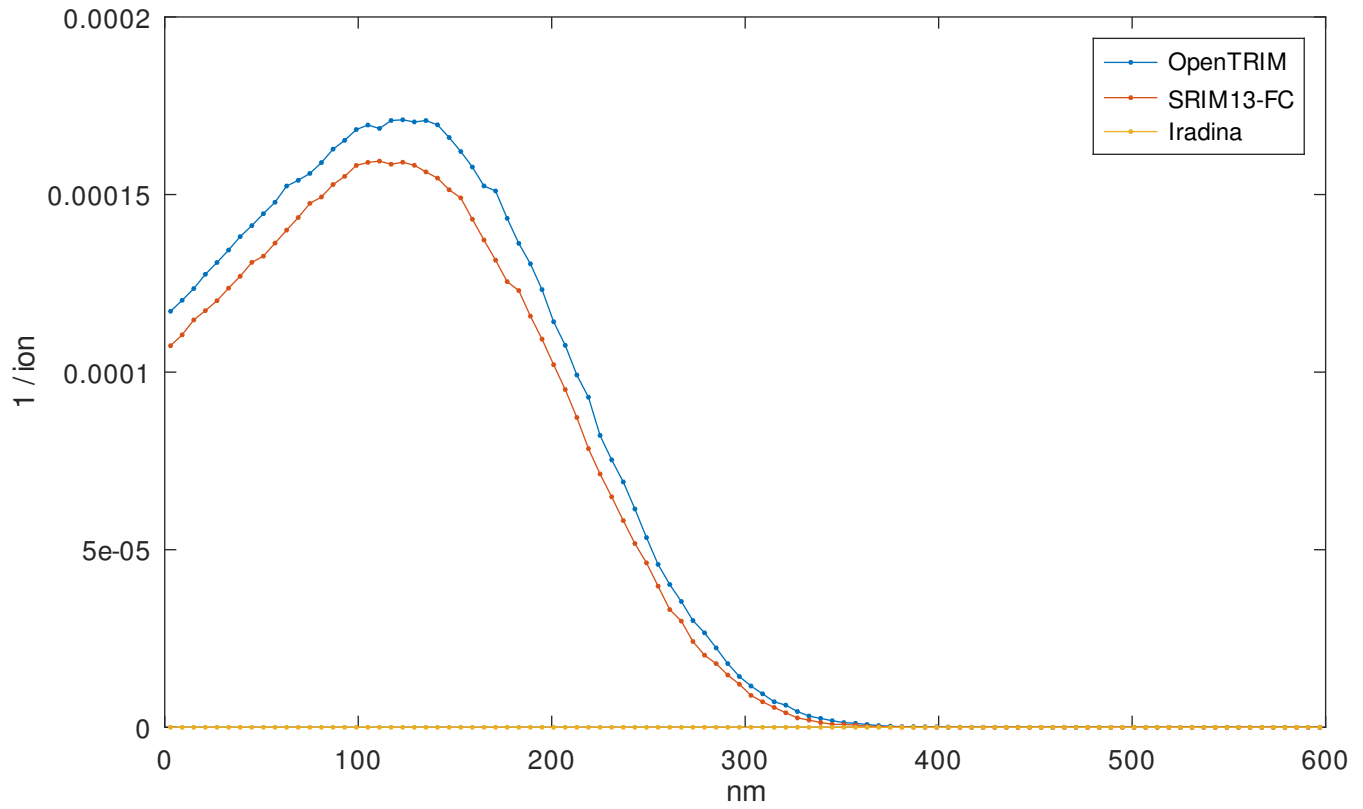
Ionization fraction E_I/E_0 by recoils



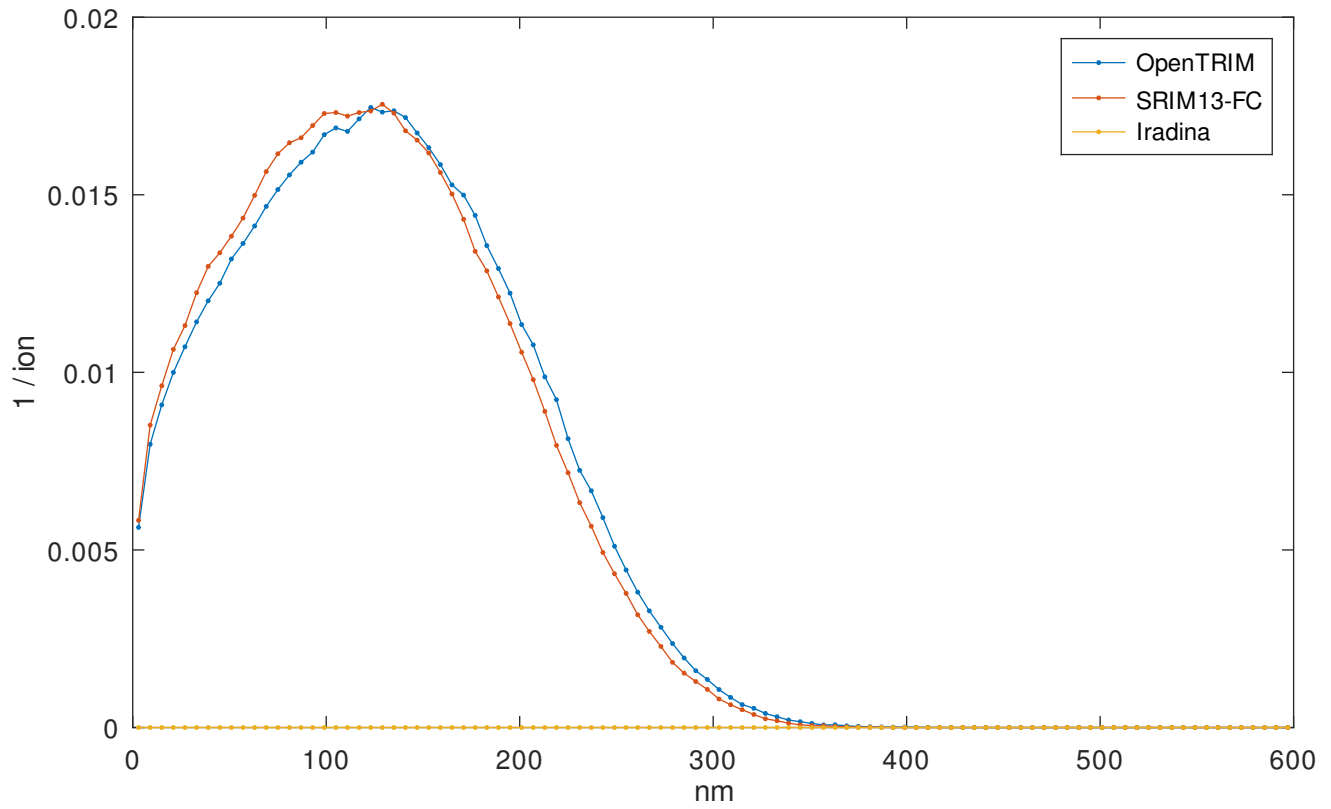
Total Ionization fraction E_I/E_0



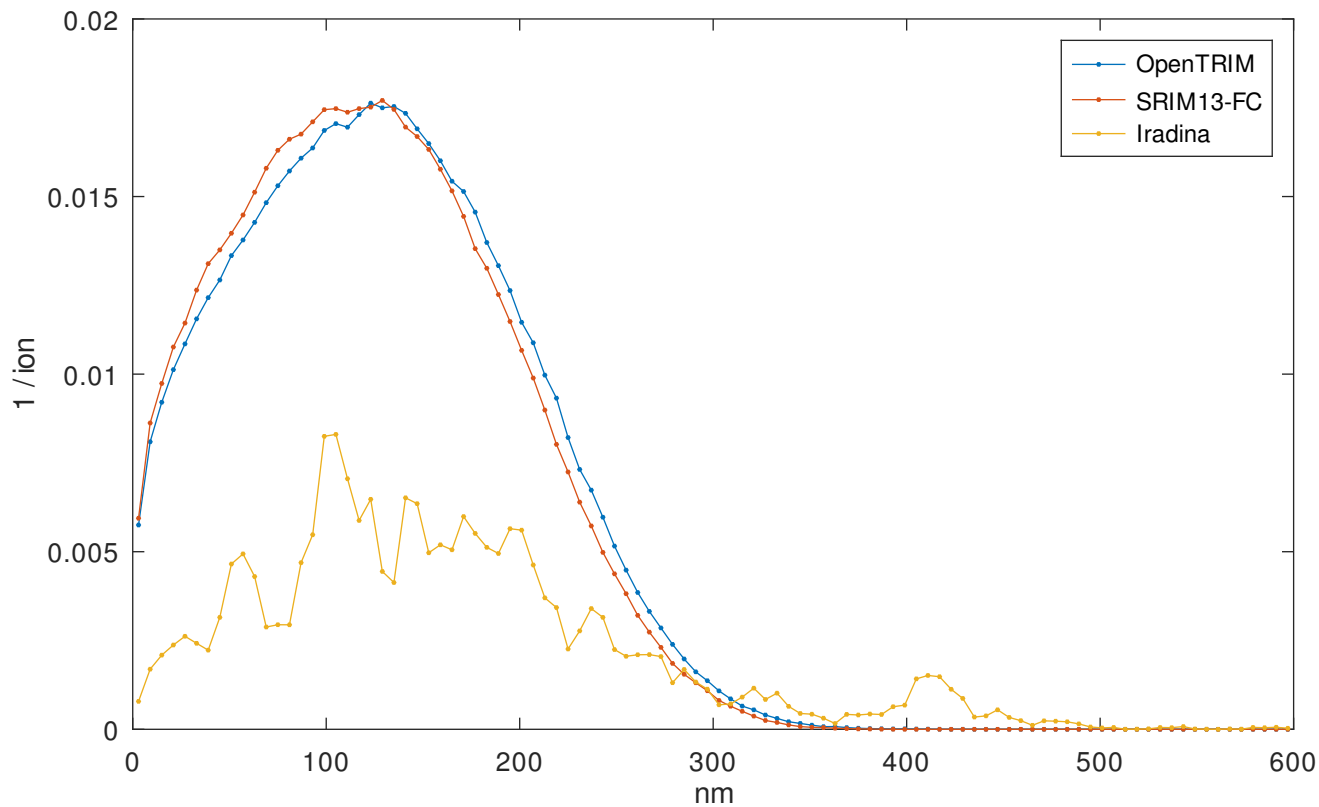
Phonon energy fraction E_{Ph}/E_0 by Fe ion



Phonon energy fraction E_{Ph}/E_0 by recoils



Total Phonon energy fraction E_{Ph}/E_0



Total fractional energy deposition $(E_I + E_{Ph})/E_0$

