

Benchmark #7

1 MeV H on Fe

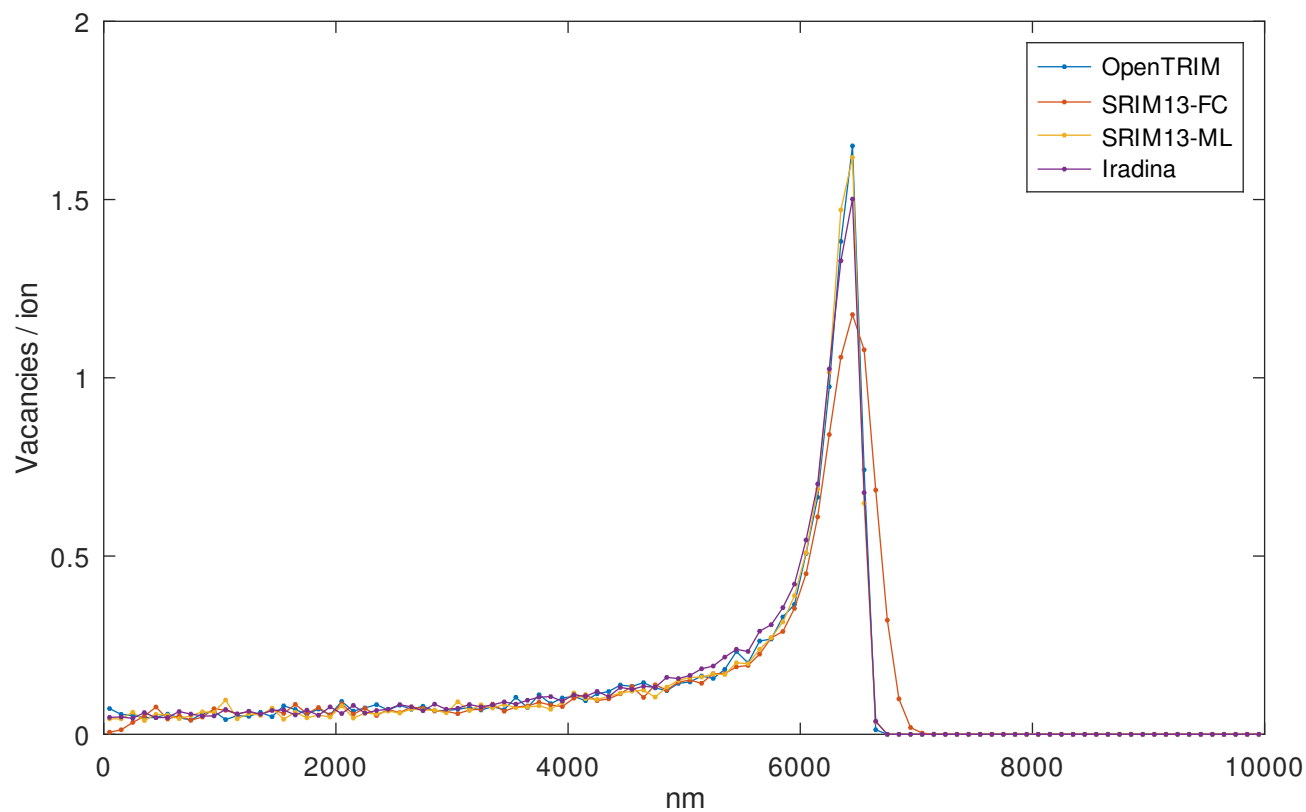
Ion energy E0 = 1e+06 eV

Target depth = 10000 nm

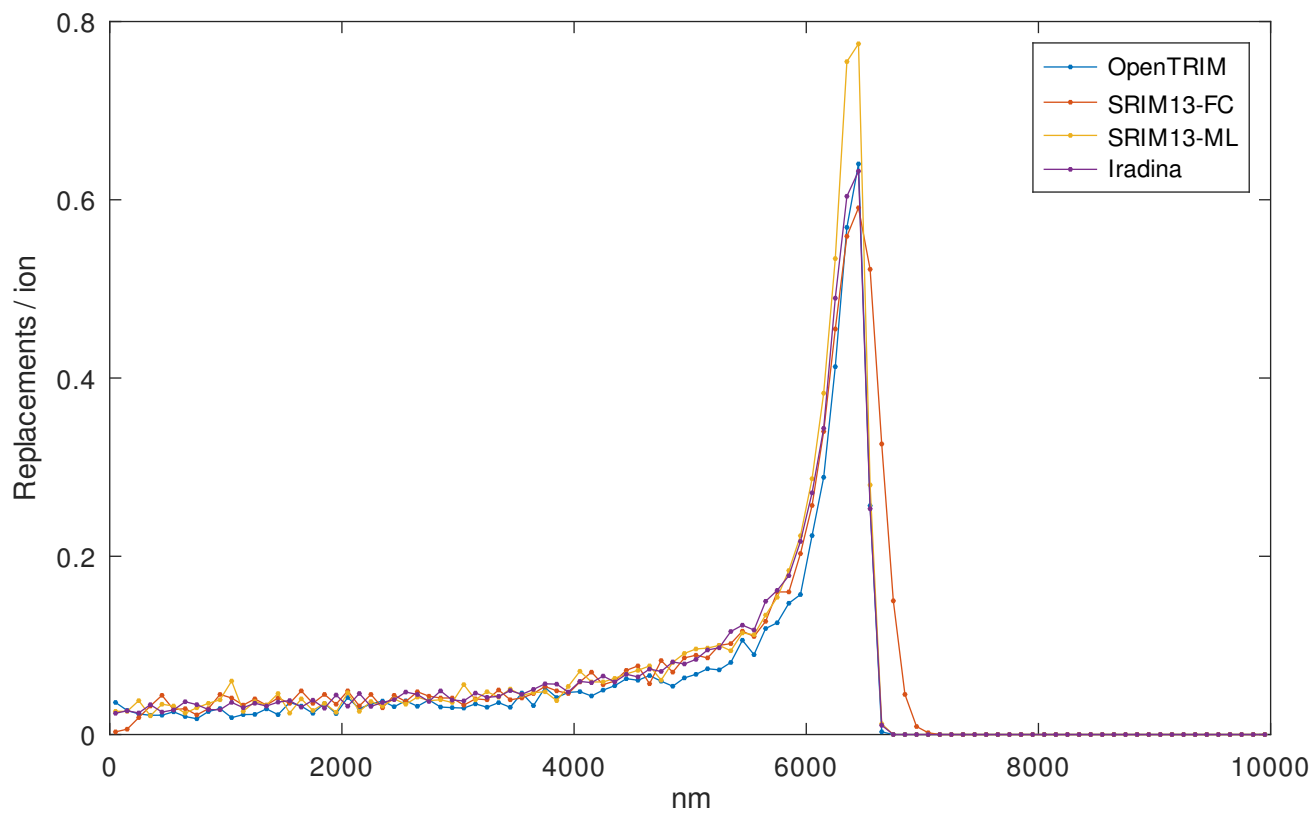
Summary Table

| Quantity | OpenTRIM | SRIM13-FC | SRIM13-ML | Iradina |
|-----------------|-----------|-----------|-----------|---------|
| V(Fe) | 12.2 | 12.2 | 11.9 | 12.5 |
| R(tot) | 5.23 | 6.69 | 6.53 | 6.14 |
| I(H) | 1 | 1 | 1 | 1 |
| EI(H)/E0 | 0.998 | 0.998 | 0.998 | 0 |
| EI(r)/E0 | 0.00012 | 0.000104 | 0.000102 | 0 |
| EI/E0 | 0.998 | 0.998 | 0.998 | 0.998 |
| EPh(H)/E0 | 0.000847 | 0.000654 | 0.000915 | 0 |
| EPh(r)/E0 | 0.000932 | 0.00154 | 0.00178 | 0 |
| EPh(tot)/E0 | 0.00178 | 0.00219 | 0.00269 | 0.00183 |
| 1 - (EI+EPh)/E0 | -1.19e-07 | -0.00055 | -0.000704 | 0 |

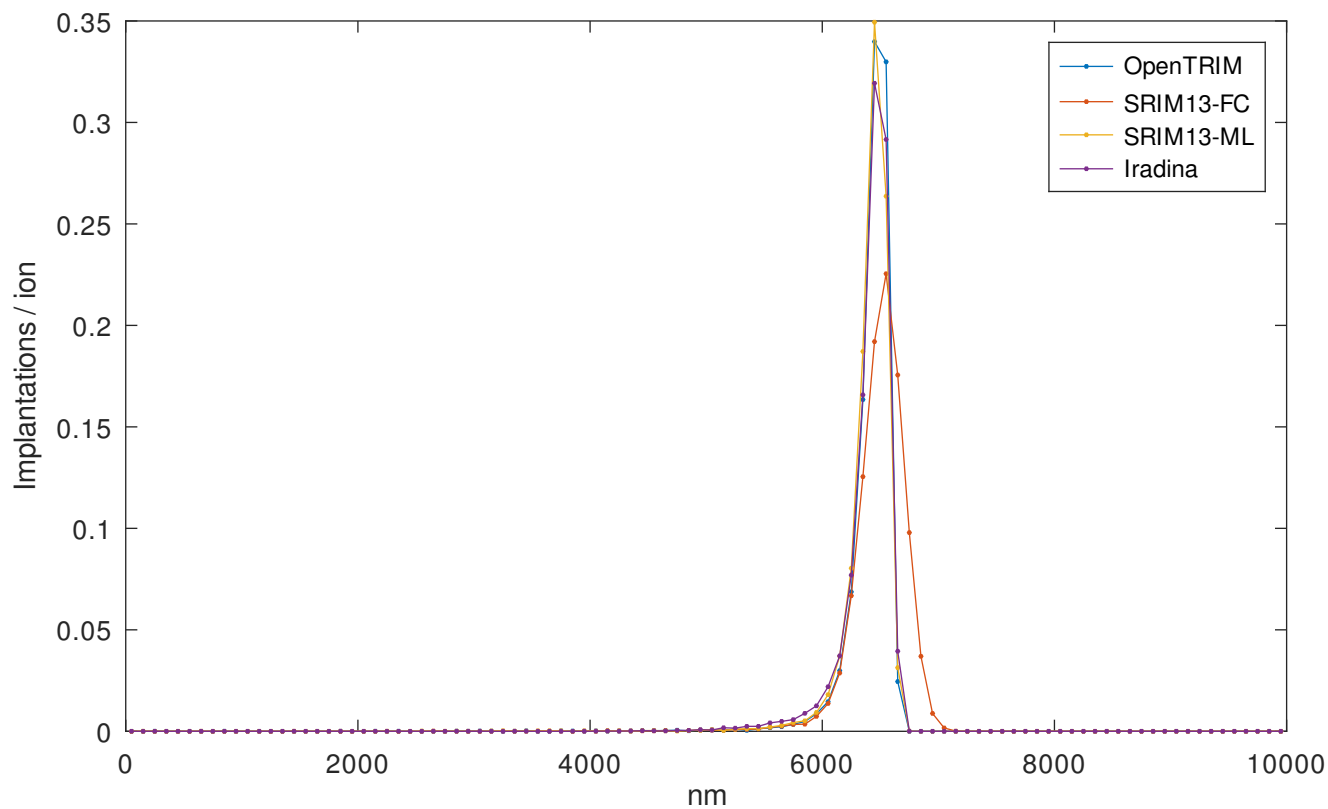
Vacancies of Fe in Fe



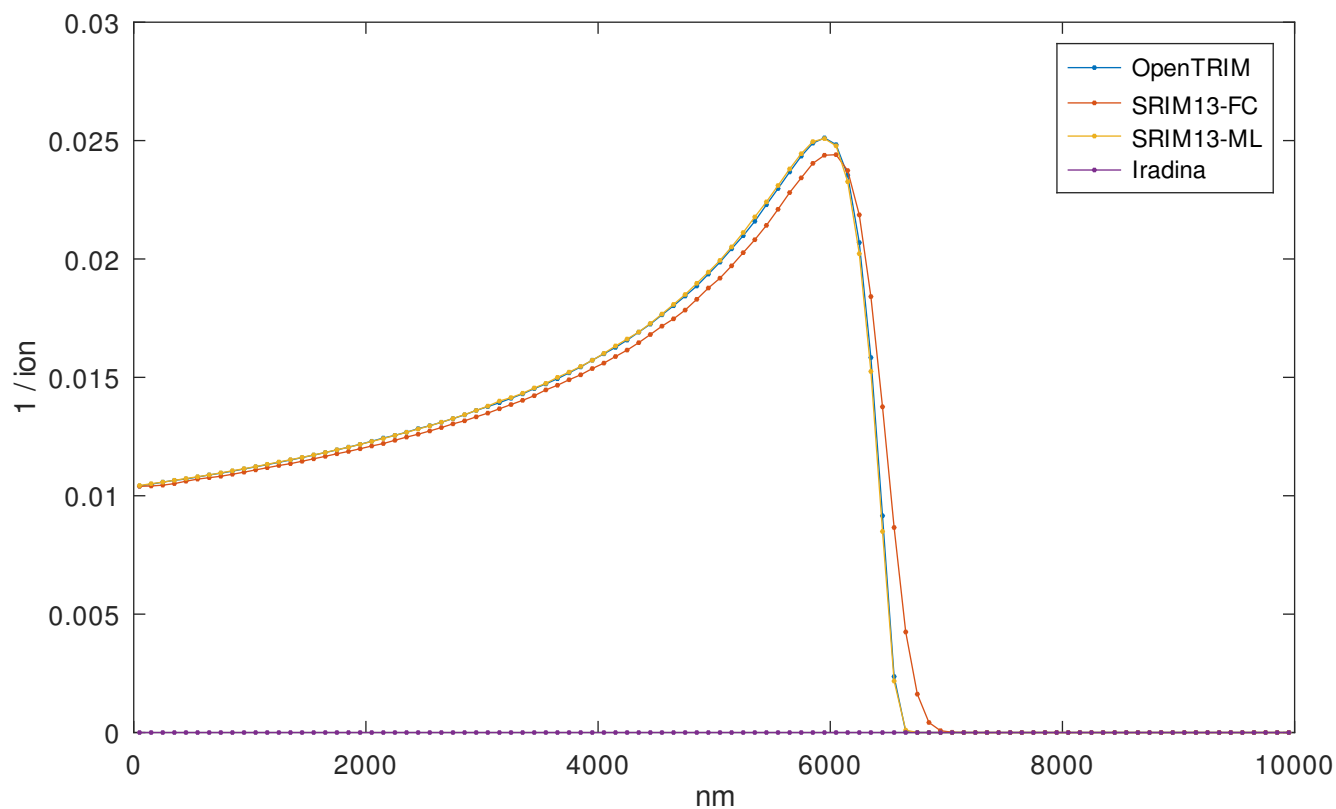
Replacements



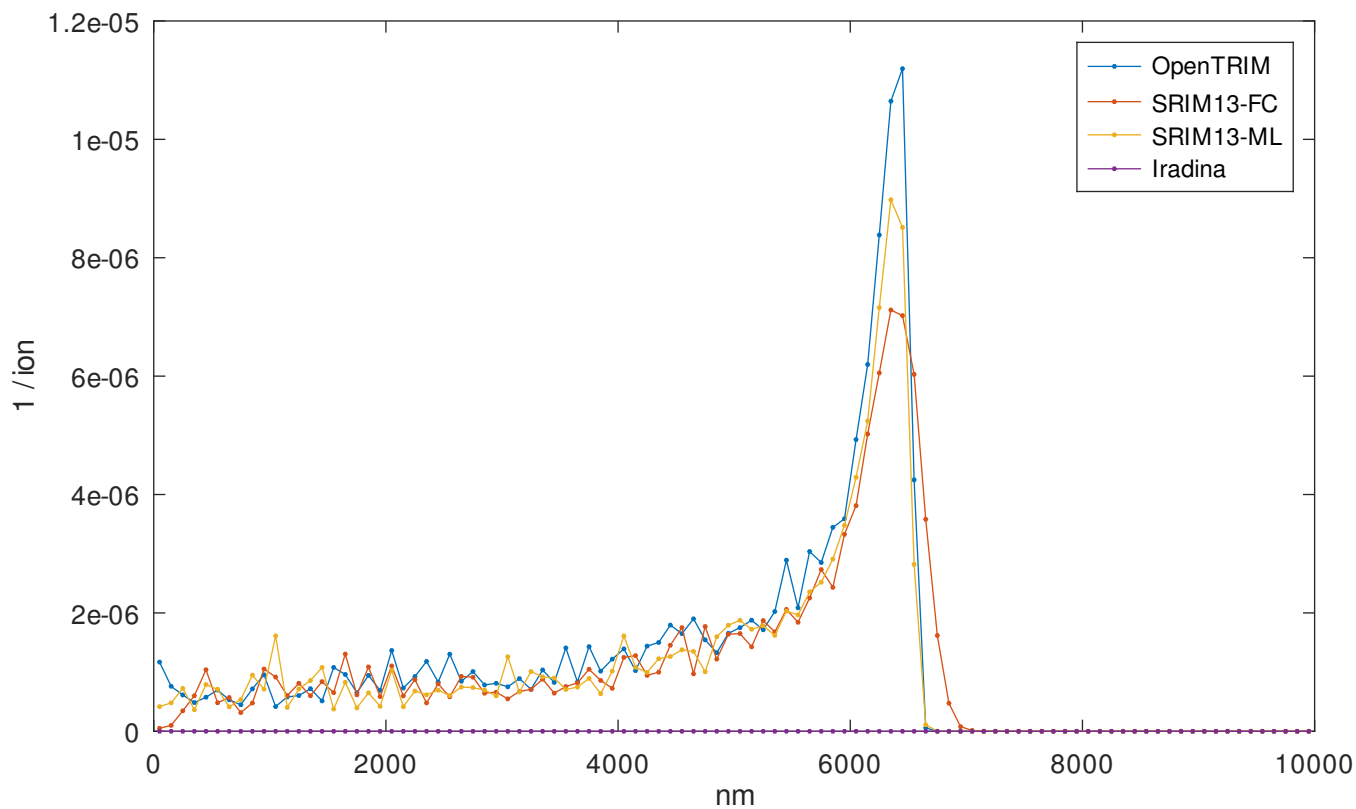
Implanted H ion



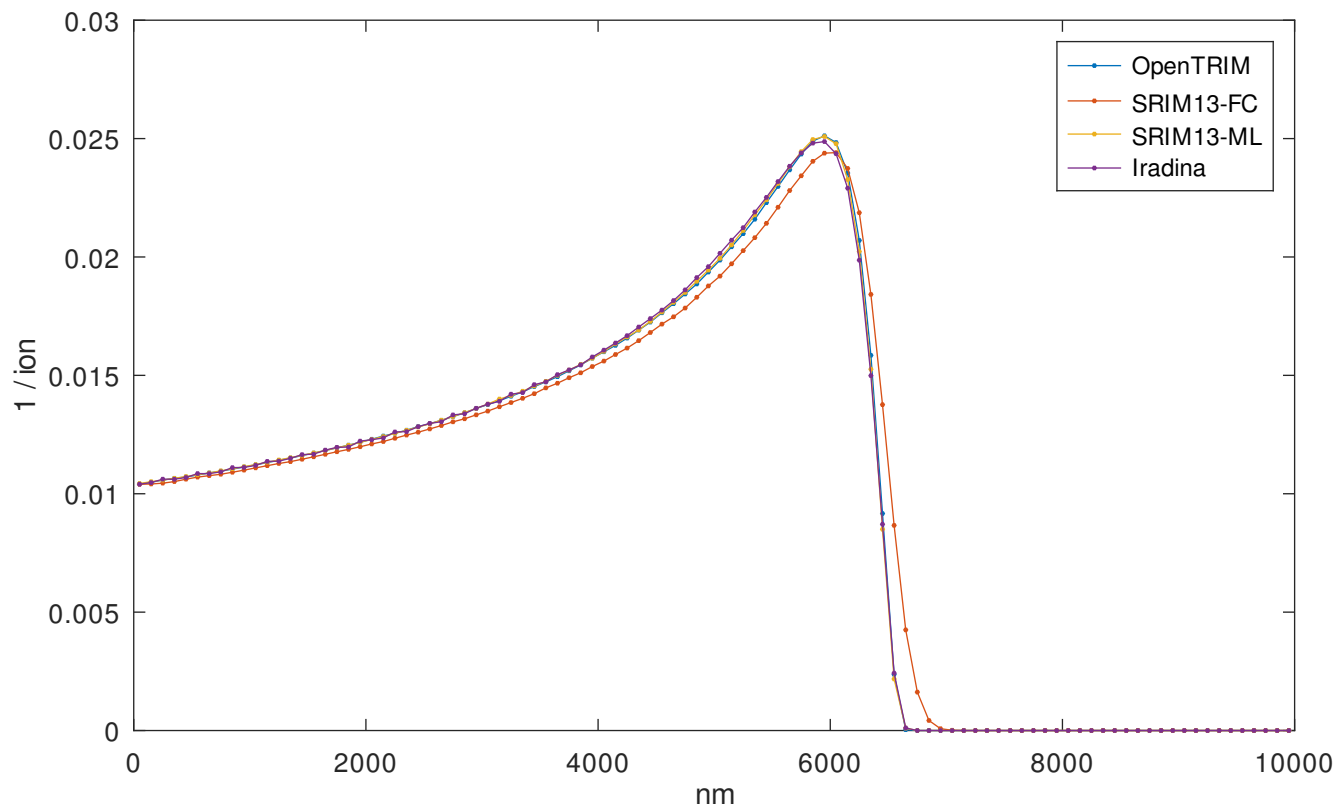
Ionization fraction E_I/E_0 by H ion



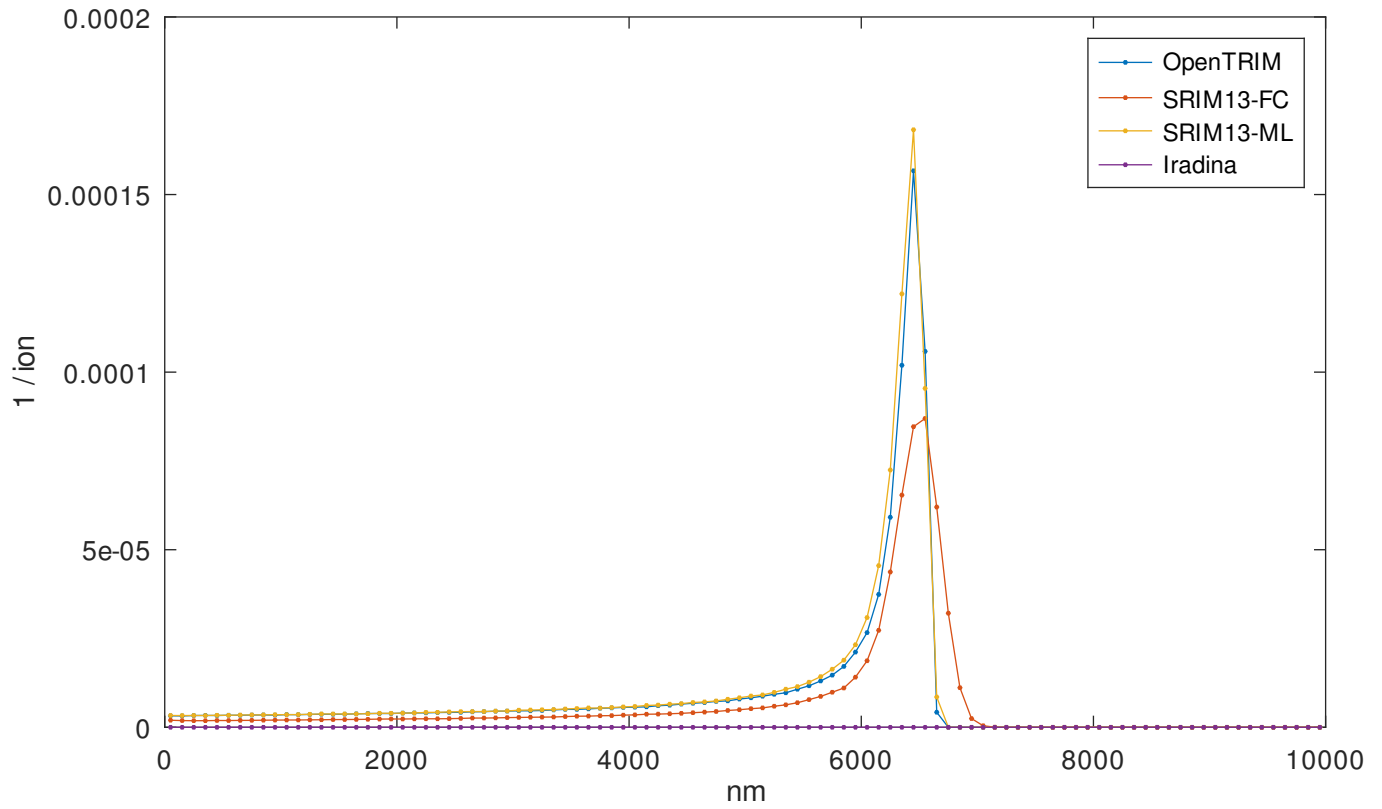
Ionization fraction E_I/E_0 by recoils



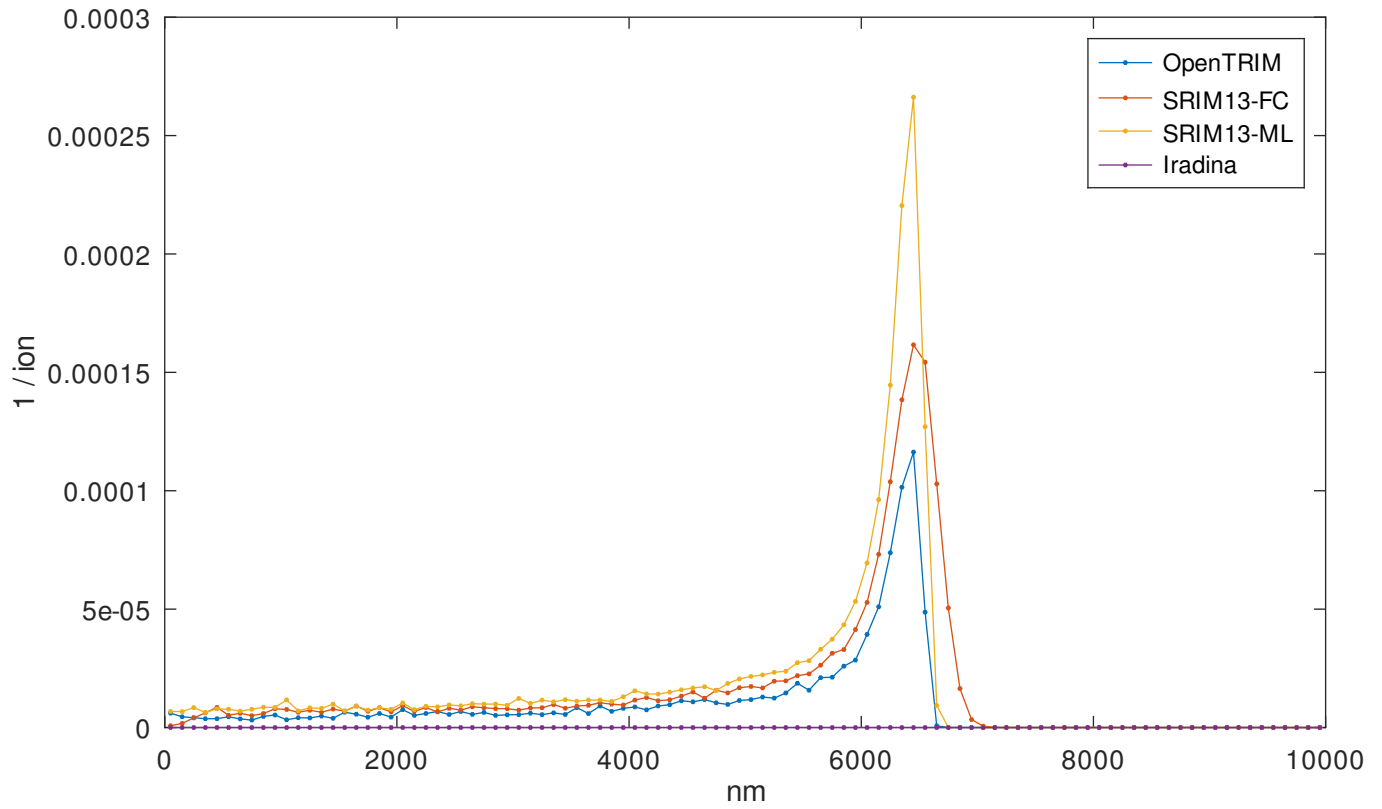
Total Ionization fraction E_I/E_0



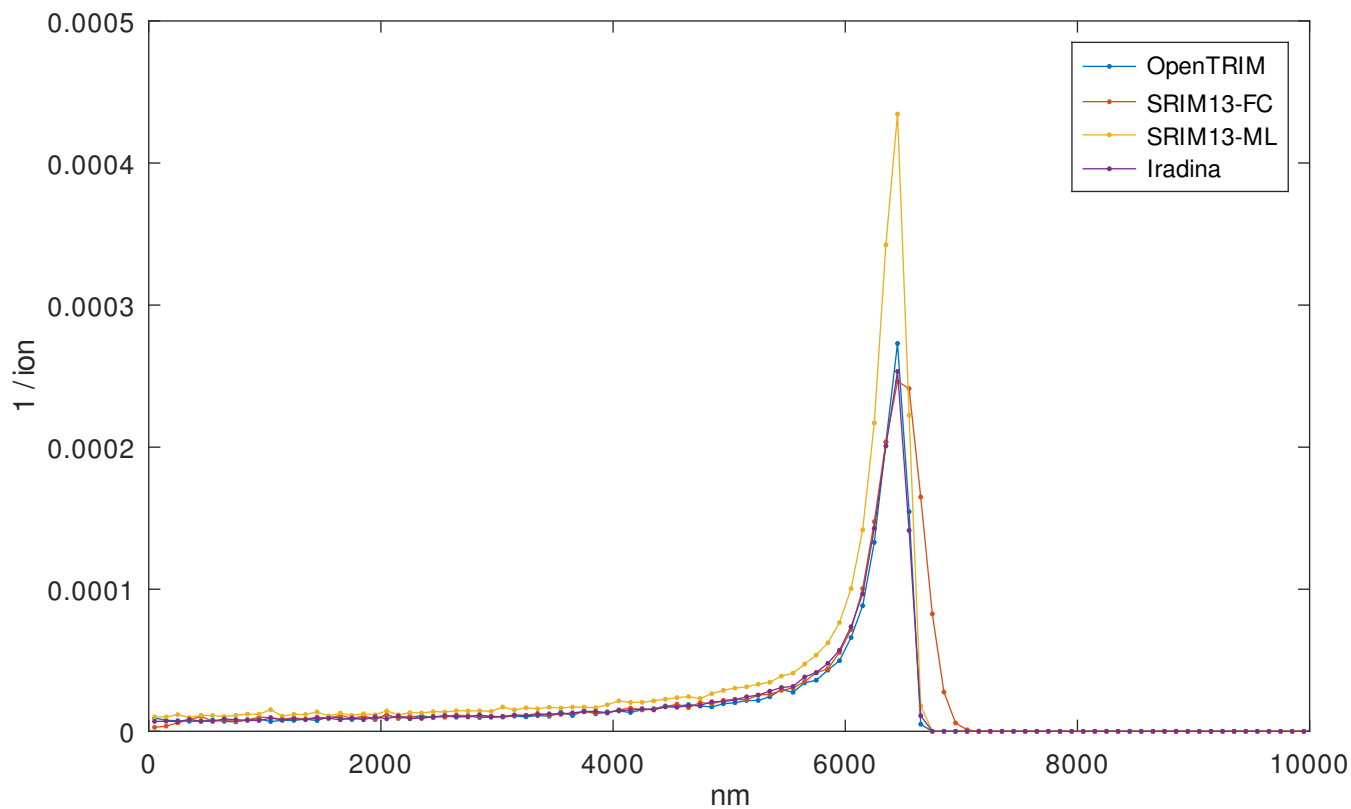
Phonon energy fraction E_{Ph}/E_0 by H ion



Phonon energy fraction E_{Ph}/E_0 by recoils



Total Phonon energy fraction E_{Ph}/E_0



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

