

Laser: 50mJ, 10ns, 1mm x 3mm rectangular

$$\sigma = 3.7 \times 10^{-21} \text{ m}^2$$
$$F = 1.36 \times 10^{31} \text{ s}^{-1}\text{m}^{-2}$$

Beam Energy	Fraction	Yield / 10^6 s^{-1}
200 MeV	0.223	1.07
200 MeV*	0.303	1.45

Laser: 5mJ, 10ns, 0.5mm diameter

$$\sigma = 3.7 \times 10^{-21} \text{ m}^2$$
$$F = 1.36 \times 10^{31} \text{ s}^{-1}\text{m}^{-2}$$

Beam Energy	Fraction	Yield / 10^6 s^{-1}
6 keV	1.0	1.46
60 keV	1.0	55.13
3 MeV	0.65	4.24
600 keV	0.90	5.24
200 MeV	0.12	0.10
200 MeV*	0.167	0.14

Laser: 50mJ, 20ns, 0.5mm diameter

$$\sigma = 3.7 \times 10^{-21} \text{ m}^2$$
$$F = 6.81 \times 10^{31} \text{ s}^{-1}\text{m}^{-2}$$

Beam Energy	Fraction	Yield / 10^6 s^{-1}
6 keV	1.0	1.46
60 keV	1.0	55.13
3 MeV	0.995	6.48
600 keV	1.0	5.83
200 MeV	0.47	0.38
200 MeV*	0.60	0.49

Laser: 35mJ, 5ps, 0.5mm diameter

$$\sigma = 3.7 \times 10^{-21} \text{ m}^2$$
$$F = 1.91 \times 10^{35} \text{ s}^{-1}\text{m}^{-2}$$

Beam Energy	Fraction	Yield / 10^6 s^{-1}
6 keV	1.0	1.46
60 keV	1.0	55.13
3 MeV	1.0	6.52
600 keV	1.0	5.83
200 MeV	1.0	156.25
200 MeV*	1.0	156.25

Laser: 5mJ, 100ps, 0.5mm diameter

$$\sigma = 3.7 \times 10^{-21} \text{ m}^2$$
$$F = 1.36 \times 10^{33} \text{ s}^{-1} \text{ m}^{-2}$$

Beam Energy	Fraction	Yield / 10^6 s^{-1}
6 keV	1.0	1.46
60 keV	1.0	55.13
3 MeV	1.0	6.48
600 keV	1.0	5.83
200 MeV	1.0	0.78
200 MeV*	1.0	0.78

****For 200MeV relativistic effects : gamma = 1.32, wavelength = 805.8 nm, cross-sec
= $4 \times 10^{-21} \text{ m}^2$***