

Orion laser EMP data from D Hillier:

Data file name: "Figures-57-58-59_Orion_Hillier-D.xlsx"

Data layout: Each figure has a separate tab in the excel file.

Figure 57 Caption:

Dependence of EMP energy on laser energy in experiments with gold targets of thickness varying from 10 and 125 μm . All targets were mounted on 60 mm long, 1 mm diameter quartz glass stalks. Linear fits to the data show a slope variation of less than 20% between the different thickness targets and an averaged fit to all the data sets is shown.

Figure 58:

EMP energy generated by hemispherical targets mounted on 23 mm long, 1 mm diameter glass and carbon fiber stalks, showing lower overall emissions for higher resistivity stalks, as expected. Linear trend lines with drive laser energy have been fitted to the data.

Figure 59:

Dependence of EMP energy on target dimension for thin 0.01 – 0.125 mm gold foils mounted on glass stalks, fitted with a linear trend line. To compare the EMP energy per Joule for different shaped round and rectangular targets, the square root of target area has been used as an equivalent "length" dimension. The error bars are the standard deviation observed over many shots for each target size.