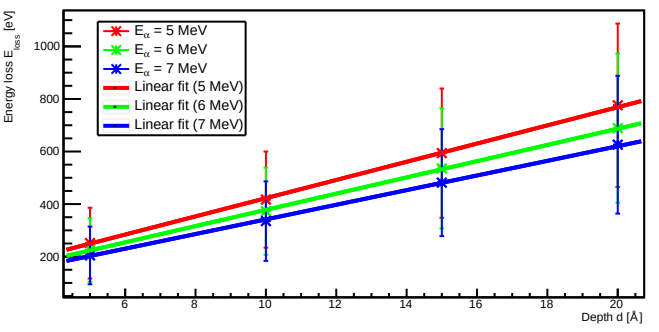
Energy loss formulation:

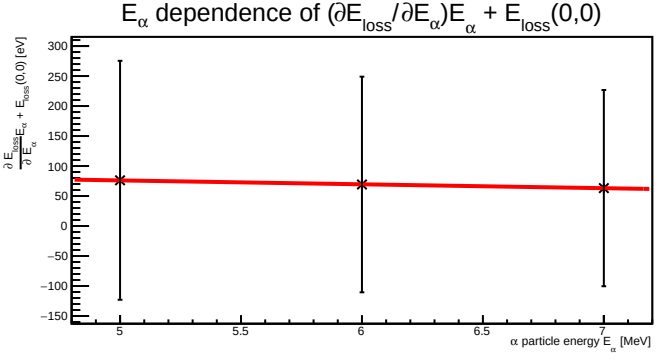
$$E_{loss}(d,E_\alpha) = \frac{\partial E_{loss}}{\partial d} d + \frac{\partial E_{loss}}{\partial E_\alpha} E_\alpha + E_{loss}(0,0)$$

E_{loss}: energy loss in the SUS303 [eV]

d: depth [Å]

E_α: α ray energy [MeV]





$$\frac{\partial E_{loss}}{\partial d}\Big|_{E_\alpha = 5\,MeV} = 34.627 \pm 19.059\ eV/Å$$

$$\frac{\partial E_{loss}}{\partial d}\Big|_{E_\alpha = 6\,MeV} = 30.880 \pm 17.351\ eV/Å$$

$$\frac{\partial E_{loss}}{\partial d}\Big|_{E_\alpha = 7\,MeV} = 27.852 \pm 15.812\ eV/Å$$

$$\text{AVERAGE} \rightarrow \frac{\partial E_{loss}}{\partial d} = 31.120 \pm 10.079\ eV/Å$$

$$\frac{\partial E_{loss}}{\partial E_\alpha} = -6.483 \pm 128.037\ eV/MeV$$

$$E_{loss}(0,0) = 108.414 \pm 791.657\ eV$$

$$\Delta E_{loss}(d \pm \Delta d, E_\alpha \pm \Delta E_\alpha)$$

$$= \sqrt{968.431(\Delta d)^2 + 101.590(d)^2 + 42.032(\Delta E_\alpha)^2 + 16393.481(E_\alpha)^2 + 626721.148}$$