



$$\frac{dL}{dx} = \frac{S \frac{dE}{dx}}{1 + kB \frac{dE}{dx}}$$

Birks' formula

dL/dx : the fluorescent energy emitted per unit path length

dE/dx : specific energy loss for the charged particle

kB : adjustable parameter to fit experimental data

0.0131 g/cm²MeV for proton

