$$\alpha_\nu = \left(\frac{\sqrt{\pi} e^2 f}{mc\Delta\nu_D} \right) H(a, \mathrm{v})$$

with $\mathrm{H}(a, \mathrm{v}) = \frac{a}{\pi} \int_{-\infty}^{+\infty} \frac{e^{-y^2}}{(\mathrm{v} - y)^2 + a^2} \mathrm{d}y$ Voigt function