This information is intended to help relate TQCM and witness sample data to instrument performance degradation.

Caveat: It has been produced on the moment and is thought to be accurate, but it should be verified before using for any serious purpose.

Transmittance of carbon layer. Density assumed to be 1.0 g/cm^3
Data:
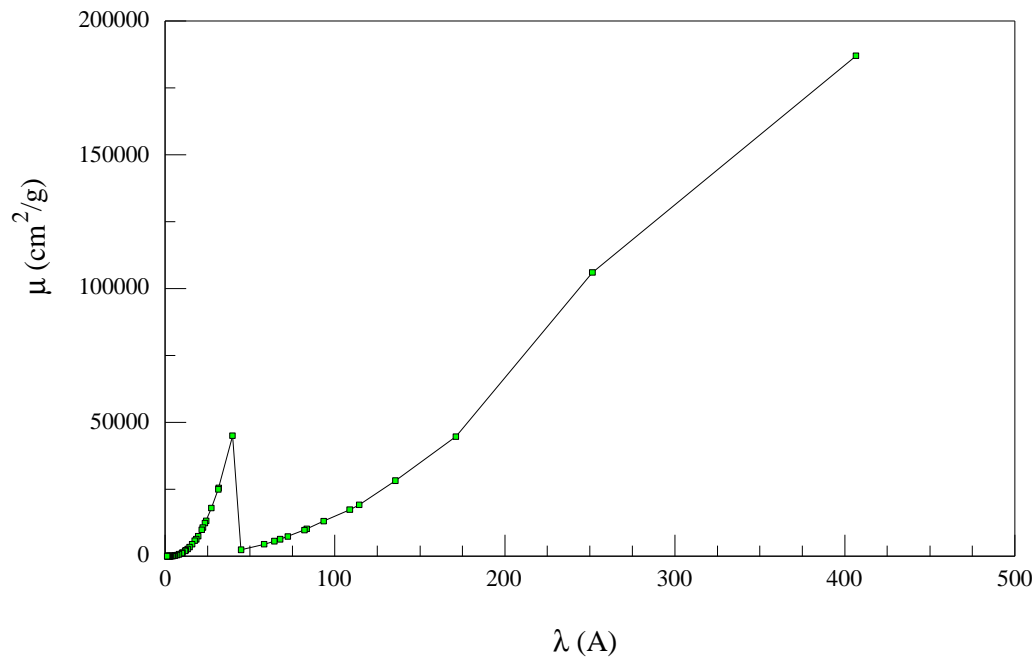72.4 ev = 171 A. μ = 4.47 x 10^4
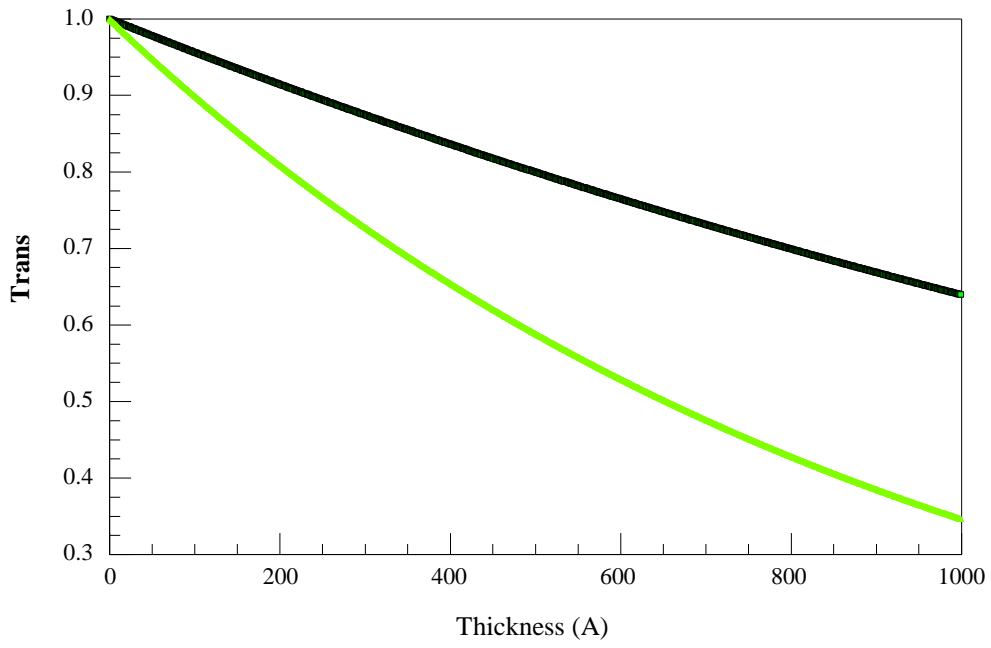49.3 ev = 251.5 A μ = 1.06 x 10^5

$$T = e^{-\mu \rho l}$$

Here we assume for the contaminant, the density is 1.0 and the μ is the mass absorption coefficient of carbon. The thickness of the layer is l. 1 A = 10^{-8} cm.
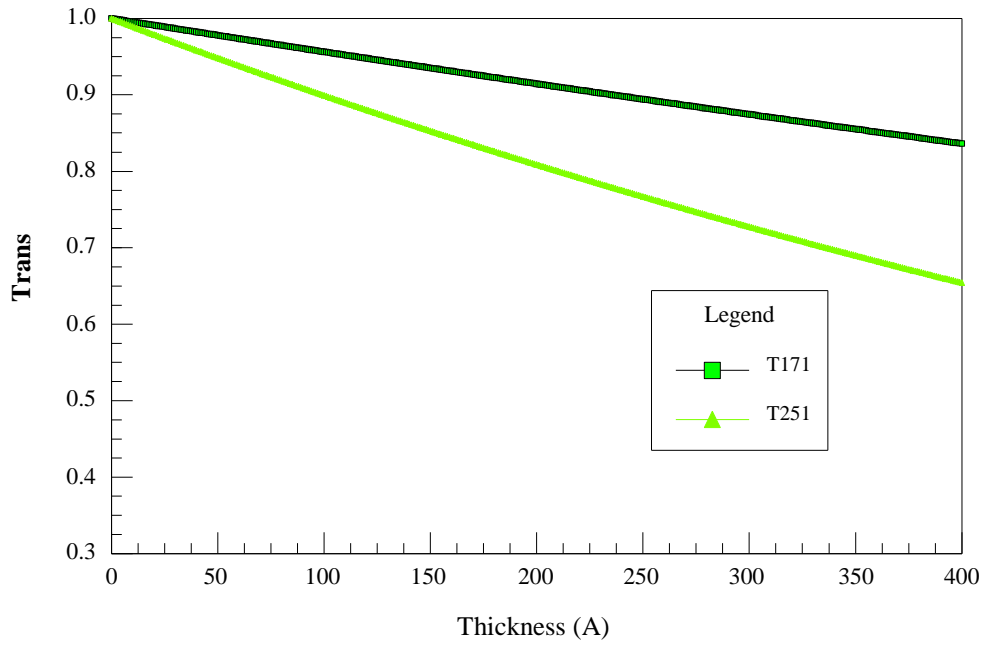
Henke data for Carbon

Transmission of Carbon layer

Trans

Thickness (A)

Transmission of Carbon layer

Trans

Thickness (A)

Legend

T171

T251

Transmission of Carbon layer