

Lambert formula - Bouguer absorption law?

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Abstract

It is shown that the fundamental Bouguer law, which links the fraction of absorbed light to the intensity of the incident light for a constant thickness of absorbing layer, was discovered experimentally and that the Lambert law is in no way related to it. The Lambert formula can be used only to estimate the attenuation (transmission) of light in a homogeneous medium containing scattering heterogeneous particles and with no jumps of the refractive index. The fraction of light absorbed in a layer is shown to depend on the thickness of that layer. © 1998 Plenum Publishing Corporation.
