

reflectance, ρ

Also contains definitions of: reflectance factor, reflectivity

Fraction of incident radiation reflected by a surface or discontinuity, $\rho(\lambda) = \frac{P_{\lambda}^{\text{refl}}}{P_{\lambda}^0}$, where P_{λ}^0 and $P_{\lambda}^{\text{refl}}$ are, respectively, the incident and reflected spectral radiant power.

Note:

The reflectance for a beam of light normally incident on a surface separating two materials of refractive indices n_1 and n_2 is given by

$$\rho(\lambda) = \frac{(n_1 - n_2)^2}{(n_1 + n_2)^2}$$

Reflectance increases as the angle of incidence decreases from 90 degrees.

Source:

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 413