depth of penetration

of light

The inverse of the absorption coefficient. If the decadic absorption coefficient, a, is used, the depth of penetration ($\frac{1}{a}$) is the distance at which the radiant power, P_λ, decreases to one tenth of its incident value, P_λ^0. If the Naperian absorption coefficient, α, is used, the depth of penetration ($\frac{1}{\alpha} = \beta$ in this case) is the distance at which the radiant power decreases to $\frac{1}{e}$ of its incident value.

See: absorbance, attenuance

Source:
PAC, 1996, *68*, 2223 *(Glossary of terms used in photochemistry (IUPAC Recommendations 1996))* on page 2235