

absorbed (spectral) radiant power density

Spectral radiant energy per time interval (spectral radiant power, P_λ) absorbed by a system per volume, V . SI unit is W m^{-4} ; common unit is $\text{W cm}^{-3} \text{nm}^{-1}$.

Note:

Mathematical expression: $\frac{P_\lambda^0 [1 - 10^{-A(\lambda)}]}{V}$, where $A(\lambda)$ is the absorbance at wavelength λ and superscript 0 (zero) indicates incident radiant power.

Source:

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 297