

radiative absorption

Also contains definitions of: transition probability for absorption *in spectrochemistry* , transition probability for stimulated emission *in spectrochemistry*

in spectrochemistry

A process by which a particle in the ground state or an excited state may undergo transition to a higher energy level by absorption of a photon. For a given particle in the lower state of probability per second of such a transition in a field with a continuous spectrum is proportional to the spectral radiant energy density of the absorption line. The proportionality constant is termed the transition probability for absorption. The transition probability for stimulated emission is defined in a similar way for the reverse radiative de-excitation process that is induced by the same radiation field.

Source:

PAC, 1985, 57, 1453 (*Nomenclature, symbols, units and their usage in spectrochemical analysis - V: Radiation sources (Recommendations 1985)*) on page 1463