

**microscopic cross-section,  $\sigma$** 

A measure of the probability of a specified interaction or reaction between an incident radiation and a target particle or system of particles. It is the reaction rate per target particle for a specified process divided by the *flux* of the incident radiation. In general, a specification is added of the type of radiation (e.g. neutron, photon), the *energy* of the incident radiation (e.g. thermal, epithermal, fast) and the type of interaction of reaction (e.g. *activation, fission*, scattering).

See also *macroscopic cross-section*.

1994, 66, 2517; O.B. 217