

**activation energy (Arrhenius activation energy)**

An empirical parameter characterizing the exponential temperature dependence of the *rate coefficient*,  $k$ ,  $E_a = RT^2 (\text{dln}k/\text{d}T)$ , where  $R$  is the gas constant and  $T$  the thermodynamic temperature. The term is also used for *threshold energies* in electronic potential surfaces, in which case the term requires careful definition.

G.B. 55; see also 1996, 68, 151; 1993, 65, 2294; 1994, 66, 1112