

### **Dexter excitation transfer (electron exchange excitation transfer)**

Excitation transfer occurring as a result of an electron exchange mechanism. It requires an overlap of the wavefunctions of the energy donor and the energy acceptor. It is the dominant mechanism in triplet-triplet energy transfer. The transfer rate constant,  $k_{\text{ET}}$ , is given by:

$$k_{\text{ET}} \propto [h/(2\pi)]P^2J \exp [-2r/L]$$

where  $r$  is the distance between donor (D) and acceptor (A),  $L$  and  $P$  are constants not easily related to experimentally determinable quantities, and  $J$  is the spectral overlap integral. For this mechanism the spin conservation rules are obeyed.

See also *radiative energy transfer*.  
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