

Probabilistic model of the cage effect as a tool of studying diffusion-controlled processes

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Abstract

Presented are the fundamentals of the probabilistic approach to describing the cage effect, which may be used as a convenient tool in studying the diffusion-controlled processes, as it was exemplary shown for the case of exchange-resonance (triplet-triplet) energy transfer. The means of acquiring the data on the probability of the elementary interaction between the partners has been demonstrated through harnessing the dependence of the process rate constant on the medium viscosity.