

# Change of a range of impact parameters with growth of a delay time between stages of Lindeman mechanism of an ionic recombination

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Lindeman mechanism of an ionic recombination assumes two consecutive stages of process according to the following scheme:



Dynamics of a recombination is defined by a number of parameters most important of which are energy of rapprochement of ions ( $E_{ini.}$ ) and energy of a stabilizing particle relatively the center of mass of ionic pair ( $E_{rel.}$ ), and also delay time between two stages of process ( $T_{del.}$ ). Simulation of the process for system  $Cs^+ + Br^- + Xe$  by quasiclassical trajectories technique shows essential change of dynamics with growth of delay time between stages (1) and (2). It's clear from the changes of a form of functional dependence of recombination probability from impact parameter of xenon atom relatively the center of mass of ionic pair ( $B_{rel.}$ ) for various values of this delay shown in figure 1.

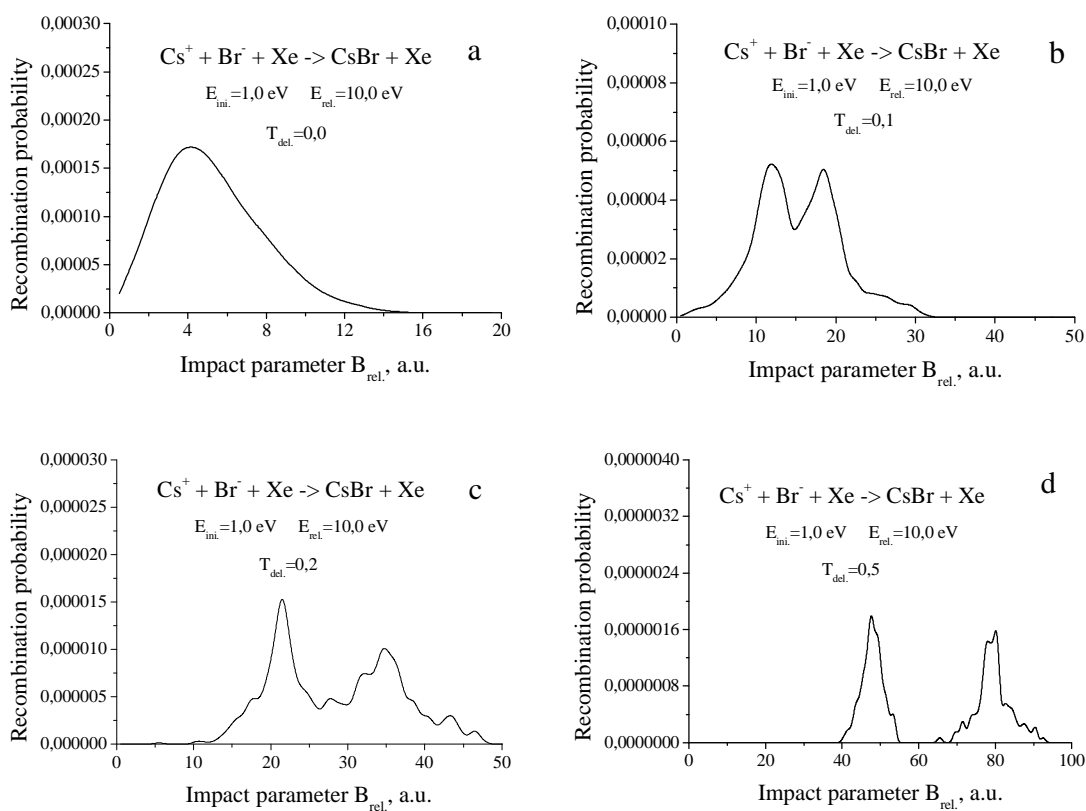


Fig. 1. Dependence of recombination probability from impact parameter of xenon atom relatively the center of mass of ionic pair for the combination of energies  $E_{ini.}=1,0$  eV and  $E_{rel.}=10,0$  eV and various values of a delay time  $T_{del.}$