Excitation function of the channel of collision-induced dissociation in system KJ + Xe

V.M. Azriel^{*}, L.Yu. Rusin

Institute of Energy Problems of Chemical Physics, Moscow, Russia * Corresponding author: <u>Azriel Vladimir@mail.ru</u>

Dynamics of dissociation of molecules KJ to ions, induced by collisions with atoms of Xe, is investigated in the range of collision energies from 3 eV to 8 eV by classical trajectory technique. Potential energy surface was built as additive function of three pairwise potentials based on truncated Rittner form [1]. Figure 1 represents the comparison of excitation function calculated from trajectory model with experimental function [2]. One can see good quantitative agreement of both excitation functions in all range of collision energies.

References

(1) Rittner, E.S. J. Chem. Phys. 1951, 19, 1030-1035.

(2) Tully F.P.; Cheung, N.H.; Haberland, H.; Lee, Y.T. J. Chem. Phys. 1980, 73, 4460-4475.



Fig.1. Excitation function of the channel of CID from trajectory calculation (solid line) and experimental data [2] (points).