

## First spectral moments of collision-induced rototranslational absorption band of $CO_2 - Ar$ pair: Classical theory with the use of ab initio calculated anisotropic interactions



<u>Daniil N. Chistikov<sup>1,3</sup>, Artem A. Finenko<sup>1</sup>, Yulia N. Kalugina<sup>2</sup>, Sergei E. Lokshtanov<sup>1,3</sup>, Sergey V. Petrov<sup>1</sup>, Andrey A. Vigasin<sup>3</sup></u>

<sup>1</sup>Department of Chemistry, Lomonosov Moscow State University, 1-3 Leninskie Gory, Moscow, 119991, Russia <sup>2</sup>Department of Optics and Spectroscopy, Tomsk State University, 36 Lenin av., Tomsk, 634050, Russia <sup>3</sup>Obukhov Institute of Atmospheric Physics RAS, 3 Pyzhevsky per., Moscow, 119017, Russia