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Molecular Dynamics
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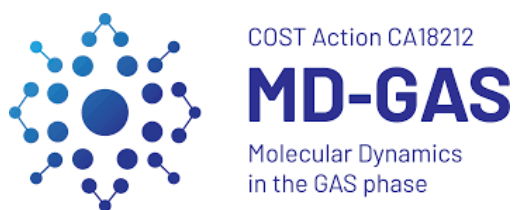
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BOOK OF ABSTRACTS

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A&M data: DCS for electron silver excitation

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For the creation of simulations and models of intricate physical/chemical processes as well as for the interpretation of information obtained from observations and measurements, such as those of laboratory plasma, planetary atmospheres, and the ionosphere [1, 2], atomic and molecular (A&M) data and databases have become crucial [3, 4]. Our understanding of electron atom/molecule collision processes continues to increase thanks to recent and upcoming improvements in experimental methods, theoretical modeling, and interdisciplinary collaboration. These developments have implications for both fundamental science and a range of technical and astrophysical applications ranging from the chemistry of the interstellar medium, to ionizing radiation in the body and DNA damage [5,6]. Here we present new renormalized differential cross sections (DCSs) for electron excitation of the silver atom from the ground $4d^{10}5s^2S$ state to the first combined resonant $4d^{10}5p^2P_{1/2,3/2}$ state at 20 and 40 eV electron impact energies. Renormalization of the obtained results [7] was done in accordance with the results obtained using relativistic convergent close coupling (RCCC) computation [8].

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