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MOLECULAR SPECIES AND DATA RELEVANT FOR ASTROCHEMISTRY

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Atomic and molecular collisional and radiative processes are crucial for understanding the different environments within our universe (Albert et al. 2020). Data and databases on atomic and molecular processes have grown in importance for constructing models and simulations of complex physical/chemical processes, as well as interpreting observations and measurement findings in a variety of sectors (Srećković et al. 2020). The data can be used for a variety of applications, such as modeling non-local thermal equilibrium of the early universe's chemistry, modeling of the solar atmosphere, modeling of white dwarf atmospheres etc (Srećković et al. 2022). For conditions that exist in laboratory plasmas, planetary atmospheres, the ionosphere and other areas of science, it is primarily aimed at obtaining cross sections and rates coefficients for certain collisional and radiative processes. In this contribution, we present that type of data.

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