

**RADIATIVE AND COLLISIONAL MOLECULAR DATA AND  
VIRTUAL LABORATORY ASTROPHYSICS: STATE OF  
ADVANCEMENT AND PERSPECTIVES**

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Spectroscopy has been central to the development of our understanding of physical and chemical phenomena. The interpretation of interstellar line spectra with radiative transfer calculations usually requires two kinds of molecular input data: spectroscopic data such as energy levels, statistical weights, and etc. and collision data. This poster describes how such data are collected, stored, and which limitations exist. Also, here we summarize challenges of atomic/molecular databases and point out our experiences, problems and etc. which we are facing with. We present overview of future developments and needs in the areas of radiative transfer and molecular data.