

ELECTRON SCATTERING DATA AND COLLISIONAL DATABASES NEEDED FOR UNDERSTANDING PROCESSES IN COMAS

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During the recent exploration of Comet 67P/Churyumov-Gerasimenko by Rosetta mission [<http://rosetta.esa.int/>] the role of electron induced collisional processes has been revealed in order to explain collected emission spectroscopical data (Bodewits et al. 2016). The spacecraft was equipped with several narrow-band filters which were able to detect the emission from the OH, O I, CN, NH, and NH₂ species that are mostly produced by dissociative electron impact excitation of different parent species. The Belgrade electron/atom-molecule database (BEAMDB) (Marinković et al. 2017) hosted by [<http://servo.aob.rs/emol>] has been amended with the collection of data that is relevant for these cometary processes. Here we present a short overview and main results of our recent investigations of electron scattering data and BEAMDB as a part of the Virtual Atomic and Molecular Data Centre (VAMDC) consortium [<http://portal.vamdc.org/vamdc-portal/home.seam>].

References

- Bodewits et al.: 2016, *AJ*, **152**, 130.
Marinković et al.: 2017, *EPJD*, **71**, accepted.