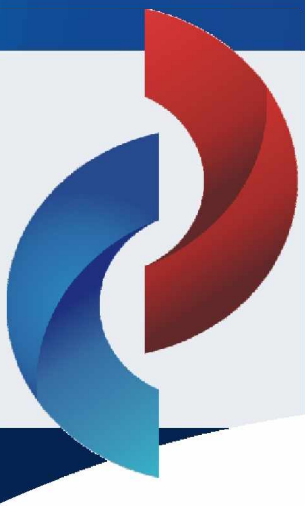
XX International Workshop on
Low-Energy Positron and Positronium Physics

XXI International Symposium on
Electron-Molecule Collisions and Swarms

V Workshop on Non-Equilibrium Processes

*18-21 July 2019, Belgrade, Serbia*



# POSMOL 2019

## BOOK OF ABSTRACTS

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*Editors*

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Zoran Lj. Petrović, Saša Dujko, Bratislav P. Marinković,
Dragana Marić and Sanja Tošić

Serbian Academy
of Sciences and Art

Institute of Physics, Belgrade
University of Belgrade

Belgrade, 2019

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# Cross Sections for Collisional and Radiative Processes: BEAMDB and MOLD Databases

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Many fields in today's science such as plasma physics [1], astrophysics [2, 3], etc. depend on data for atomic and molecular collision and radiative processes. Recently, electron interactions with some of astro chemical compounds have been reviewed [4], while the importance of electrons in understanding of processes inside comas has been recognised in Rosetta Mission [5,6]. For the radiative processes we consider photo-dissociation cross-sections for the individual ro-vibrational states of the diatomic molecular ions such as $H_2^+$, $He_2^+$, $HeH^+$, $LiH^+$, $NaH^+$ and $MgH^+$ ions [7]. We also consider processes of collisional ionisation (chemi-ionization) and collisional excitation and de-excitation [8]. A collection of new data for electron interactions with molecules as well as radiative data for photo-dissociation will be presented.

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