ELECTRON INTERACTIONS DATA BASE AS A STEP TOWARDS A DATA BASE FOR RADIATION DAMAGE IN BIOMOLECULAR SYSTEMS II

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The formation of Belgrade electron cross section data base, IPBeMoIDB, is foreseen as a part of a more comprehensive data base devoted to the research of radiation damage processes in biomolecular systems (RADAM DB). Belgrade data base should contain preferably those data that has been obtained in the measurements performed in the Laboratory for Atomic Collision Processes (LACP) at the Institute of Physics, University of Belgrade (IPB). Researchers in the LACP participate in the European network organization COST Action MP1002 entitled "Nano-scale insights in ion beam cancer therapy (Nano-IBCT)". Our focus of investigation is in obtaining the absolute differential cross sections for low and intermediate energy electron scattering by (bio)molecules. Electron interactions comprise elastic scattering, excitation, ionization and fragmentation of molecular targets. The IPBeMoIDB will exploit the underlying infrastructure of VAMDC, Virtual Atomic Molecular Data Centre, with its applications capable of combining, extracting and processing data from all VAMDC member data bases. Data will be structured according VAMDC standard documentation and XSAMS reference guide. Our aim is to get better visibility and dissemination of experimental results obtained in LACP, and to make a platform for evaluation of different sets of data. In that sense, data from other sources will be included in the data base for those atomic species targets that have been studied in LACP.

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