Contribution ID: **40** Type: **Oral talk**

Potential electron scattering by the threonine andtyrosine amino acid biomolecules

Wednesday, 23 December 2020 16:30 (20 minutes)

Our report is devoted to a brief exposition of methodics of the description of potential electron scattering on complex molecules. In the Additivity Rule approach the differential and integral cross-sections of elastic electron scattering by amino acids biomolecules, threonine and tyrosine are calculated.
Expressions for amplitudes and cross sections of electron scattering on molecules in the independent atoms model were given. The Additivity Rule approach was described. Expressions for amplitudes and differential cross sections of electron scattering on the atoms of which the molecule consists were given. The scattering phase shifts are calculated in the optical potential method of the ELSEPA program.
Theoretical calculations of differential cross sections of electron scattering on biomolecules (Threonine and Tyrosine) were made with energy levels of 20, 40, 60, 75, 100, 150 eV. Theoretical calculations of integral cross sections of electron scattering on same biomolecules were made as well. From the obtained results, we saw that behaviour of differential cross sections of electron scattering is pretty smooth and is characterized with wide graph minimum. This minimum gets wider with the increase of collision energy.

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Session Classification: Physics of Biological Macromolecules

Track Classification: Physics of Biological Macromolecules