



484th ASRC Seminar

Date: 13:30 - 15:00, 18th October

Location: Meeting room 302, ASRC Building

Speaker: Dr. Efrem Sh. Soukhovitski

(Radiation Physics and Chemistry Problems
Institute, Belarus)

Title: Rigid-soft CC optical model with dispersive
Lane-consistent potential for nucleon
induced reactions

Direct inelastic scattering is an important process in interpreting light-ion (mostly nucleons) induced nuclear reactions.

Especially, it plays a crucial role in predicting (n,n) , (n,n') , (p,p) , (p,p') scattering cross sections and (p,n) excitations to Isobaric Analogue States. In describing such excitations, nuclear wave functions for low-lying collective states must be known accurately. Our approach, namely soft-rotator model (extension of Davydov-Chaban model), is a suitable method to treat such states in a unified manner, therefore reducing uncertainties. Results for U-238 and Th-232 are demonstrated.

As expected predicted direct inelastic is higher than values predicted by conventional CC model, showing significant differences.



<Contact>

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Reactions Involving Heavy Nuclei Gr
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