

Seminar

Institute for Plasma Research

Title : Ion induced molecular dynamics and development of deceleration facility at IUAC

Speaker : Dr. Turaga Sairam

Jawaharlal Nehru University, New Delhi, India

Date : 27th August 2021 (Friday)

Time : 03:30 PM

Venue : Online- Join the talk:

<https://meet.ipr.res.in/Dr.TuragaSairam> PDFTalk

Abstract:

The talk comprises a study of molecular dynamics relating to stability, rearrangement, fragmentation of the cationic polyatomic molecules. To this end, both theoretical and experimental methods have been employed. From the ab-initio calculations, viewing substitution as a controlling parameter, we have explored whether intact polycationic stability in polyatomic molecules can be accomplished? On the experimental front, ion beams extracted from an electron cyclotron resonance ion source have been utilized to create highly charged polyatomic molecules. Using recoil ion momentum spectroscopy fragmentation dynamics has been explored. Furthermore, Using deceleration technique, the highly charged ion beams have been obtained in the eV regime. Our deceleration system is capable of delivering low energy ion beams from 2.5 eV/q to 1 keV/q.
