

SEMINAIRE ISMO

S. Sunil Kumar

Indian Institute of Technology Madras, Chennai, India

Electron correlation effects on fragmentation dynamics of SF₆

The dissociation dynamics of a molecule may often be dramatically affected by electron correlations. In the presentation, I will talk about an experimental work, in which the importance of electron correlations in determining the dissociation dynamics of sulphur hexafluoride (SF₆) was examined using time-of-flight momentum imaging spectrometry. SF₆ was irradiated by two different photon energies well below and well above the sulphur 2p threshold in SF₆. This choice of photon energies allowed us to study the effect of electron correlations resulting from the inner-shell ionization. The presentation will focus on the study on two different fragmentation channels of interest and on a sequence of fragmentation channels in which triply ionized SF₆ dissociates into three singly charged fragments. A remarkable feature of the study is the use of a novel method employed to determine the role of neutral fragments in the dissociation sequence of SF₆³⁺.

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Mardi 23 février 2010 à 11 h 00
Bâtiment 210 - Amphi I - 2^{ème} étage
Université Paris-Sud - 91405 ORSAY Cedex