

## **Theoretical Chemistry Colloquium**

## March 14, 2016 (Mon), 14:00-15:00

RCMS, 2<sup>nd</sup> floor, Chemistry Gallery

## Scanning Photoelectron Microscopy as a tool to analyze plasma fluorinated graphene



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**Abstract:** X-ray photoelectron spectroscopy (XPS) has been extremely used for probing the composition and electronic structure of solid surfaces and interfaces. The instruments using X-ray photon optics for demagnifying the photon beam to submicrometer dimensions are called scanning photoelectron microscopes (SPEM).

In the first part of the seminar we will discuss the recent developments in Scanning Photoelectron Microscopy (SPEM) and their use for analyzing functionalized graphene.

In the second part of the seminar we use the SPEM to compare the plasma fluorination of graphene using two different gases CF4 and SF6. These results pave the way towards optimization of fluorination mechanism and selectivity in covalent modification of graphene chemistry.



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