



TECHNISCHE  
UNIVERSITÄT  
WIEN  
Vienna University of Technology



**Doctoral Programme**

<http://solids4fun.tuwien.ac.at/>

## Guest Lecture

**Title:**

“Stability and decay of atomic and molecular clusters”

**Speaker:** [Prof. Dr. Henrik Cederquist](#)

**Address:** Atomic Physics, Physics Department; Stockholm University, Sweden

**Date:** Friday, 5<sup>th</sup> of May 2017

**Time:** 14:30

**Place:** Seminar Room CBEG02 (387, Photonics); Gußhausstraße 27

### **Abstract:**

In this talk I will discuss recent experimental results on the inherent stability and decay (fragmentation, electron detachment and/or photon emission) of hot small metal cluster anions isolated in vacuum (in the ion- beam storage ring DESIREE in Stockholm).

I will also discuss results from studies of the effects of interactions between clusters of large molecules such as C60 fullerenes or Polycyclic Aromatic Hydrocarbon molecules and energetic ions or atoms. In that part, I will focus on the fragmentation of the clusters, the fragmentation of the individual molecules inside the cluster, and the chemical reactions and molecular growth that the latter fragmentation processes may lead to.