

## Curious seminar

Curious is a public talk seminar series for and held by Ph.D. students at SU, an informal environment where we can share our research experience.

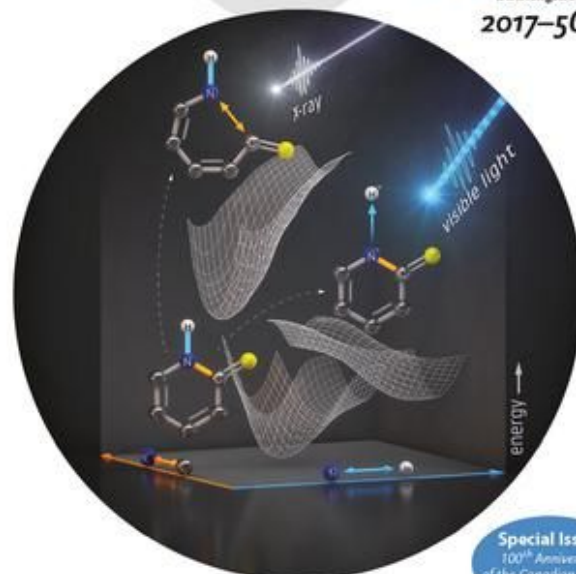
**Jesper Norell** - Ph.D. Student at Department of Physics

# Fingerprints of ultrafast molecular transients

November 8th, 16:15 - 17:00. Södra huset, Hörsal 3

From the Uppsala accident that led to a Nobel prize, to one of our current projects, I will give a short overview of how x-ray spectroscopy allows for real time observation of ultrafast molecular processes, such as the conversion of an ultraviolet photon into a broken chemical bond.

A Journal of the Gesellschaft Deutscher Chemiker  
**Angewandte Chemie**  
International Edition  
www.angewandte.org  
2017-56/22



### Electronic and structural changes ...

... induced by photoexcitation of 2-thiopyridone (2-TP) were investigated with inelastic X-ray scattering (IXS). S. Eickert, J. Norell et al. describe in their Communication on page 6088 ff. that an N site deprotonation IXS signature of 2-TP, established in synchrotron measurements, was identified on a femtosecond timescale using the free-electron-laser FELIX. Quantum chemical simulations ascribe the signature to N lone-pair orbital formation and confirm that X-ray induced dynamics are decoupled from the optically induced deprotonation.

Special Issue:  
100<sup>th</sup> Anniversary  
of the Canadian Society  
for Chemistry

150<sup>th</sup>  
GDCh

WILEY-VCH