

Dienstag, 12.01.2016

Hörsaal D, Chemie Zentralbau, 17:15 Uhr

Sprecher: **Markus Gühr**
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Thema: **Probing light induced molecular
dynamics with high photon
energies**

Abstract: Many quantum systems selectively transform light energy into other forms of energy like heat, electricity, or chemical energy with high quantum efficiency. The energy conversion process is the result of a concerted and ultrafast motion of electrons and nuclei after photoexcitation, often under breakdown of the Born-Oppenheimer approximation. This talk is about ultrafast experiments aimed at resolving light induced molecular dynamics with probe pulses from the vacuum-ultraviolet to the soft x-ray spectral domain. Inner-shell to valence transitions, accessible at these high photon energies, simplify the interpretation of experimental results because of their element and site sensitivity. I will show that we succeed to disentangle the electronic and nuclear degrees of freedom with these methods.

Organisation: *V. Engel*