CFEL SCIENCE

SEMINAR

17th October 2013 – 10:00 a.m.
CFEL-bldg. 99, seminar room III (EG.080)

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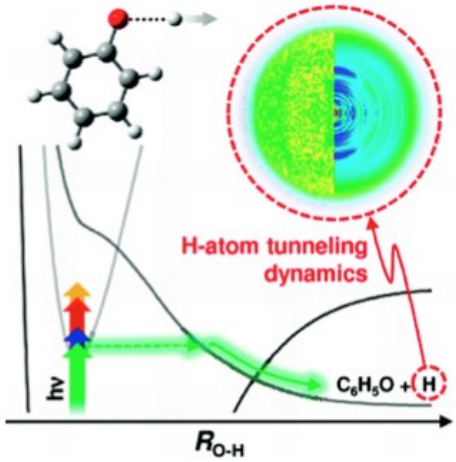
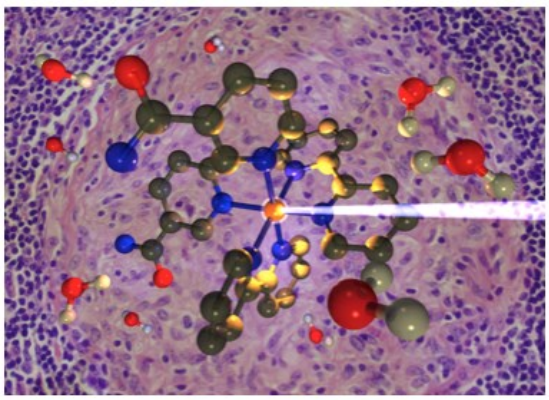
Insights into photoprotection and photoactivation mechanisms using femtosecond spectroscopy

Through evolution, molecular function has been finely tuned such that even the most complex of chemical processes occurring in humans takes place with exceptional efficiency. One example relates to the origins of resistance to photochemical damage, or *photoprotection*, following absorption of UV radiation of DNA bases, amino acids and their subunits. However, even when photochemical damage occurs, the use of transition metal anti-cancer complexes activated through absorption of UV radiation, termed *photoactivation*, can be used, for example, to destroy cancer cells. This talk will discuss our work into the underlying mechanisms of photoprotection in subunits of biomolecules (a) and more recently our endeavours into photoactivation mechanisms in transition metal complexes (b).

(a)



(b)



Host: Jochen Küpper, CFEL Molecular Physics Seminar