

SFB
1078



Protonation Dynamics
in Protein Function

➔ Colloquium

Mon, May 2, 2016 · 16:15 – 18:30 · Lecture Hall B of the Physics Dept.
at Freie Universität Berlin (Arnimallee 14, 14195 Berlin-Dahlem)

16:15 Prof. Bernd Ludwig, Goethe-Universität, Frankfurt a.M., Germany

Biogenesis of Metal Centers in Cytochrome c Oxidase

Internal electron transfer and oxygen reduction in oxidase (COX) rely on metal centers embedded into mostly hydrophobic sites of the protein scaffold. Both the availability and insertion of these redox-active transition metal moieties have to be closely regulated and "chaperoned". Using an easily amenable bacterial model system, several such metallo-chaperones have recently been identified, and are analyzed for their potential roles in supplying and inserting cofactors into their specific target sites in COX.

17:30 Prof. Rolf Diller, Technische Universität Kaiserslautern, Germany

Photoinduced processes of bilins in solution and as protein-bound cofactor

Bilins are linear tetrapyrrols with rich (photo-) chemistry in solution, including C-C single- and double-bond isomerization, as well as redox and protonation processes. When bound as cofactor to phytochrome proteins, they serve as chromophores for a variety of photoinduced processes, from red-light sensing in plant phytochrome to functionalized photoswitches relevant for optogenetic applications. Prof. Diller will present recent results on photoinduced processes of phycocyanobilin and bilirubin in solution and of the biliverdin-binding bathy-phytochrome Agp2 (*Agrobacterium fabrum*) obtained by fs transient absorption in the UV/Vis and mid-IR spectral region.

Coffee and tea are ready at 16:00 and during the break.

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