

VORTRÄGE IM RAHMEN DES SONDERFORSCHUNGSBEREICHS 623
DER UNIVERSITÄT HEIDELBERG
MOLEKULARE KATALYSATOREN: STRUKTUR UND FUNKTIONSDSIGN

Donnerstag, 15. Juli 2010, 16 h c.t.
Seminarraum 44, Im Neuenheimer Feld 267, Bioquant

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Fluorescent Probes for Multiplexed Intracellular Imaging

We design, prepare, and apply novel fluorescent probes called “through-bond energy transfer cassettes”, for intracellular imaging. The first step is to prepare fragments for assembling into through-bond energy transfer cassettes. These donor and acceptor parts themselves can be interestingly functionalized and, in some cases, water soluble probes; they include fluorescein, Nile Red, novel GFP fluorescent site analogs, extended BODIPY dyes, aza-BODIPY, and rhodamines. Several factors have to be optimized to produce effective cassettes to use in biotechnology, particularly matching of oxidation potentials of the donor and acceptor fragments and avoiding aggregation. Finally, the cassettes are linked to proteins, imported into living cells using novel peptide carrier systems (that do not have to be covalently bound to the protein), and observed via confocal microscopy. Ultimately, the goal is to design a set of matched cassettes that can be used for multiplexed imaging of protein-protein interactions.

Gäste sind herzlich willkommen.

Bei Interesse an einem Gesprächstermin wenden Sie sich bitte an
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DER SPRECHER
gez. Prof. Dr. L. H. Gade