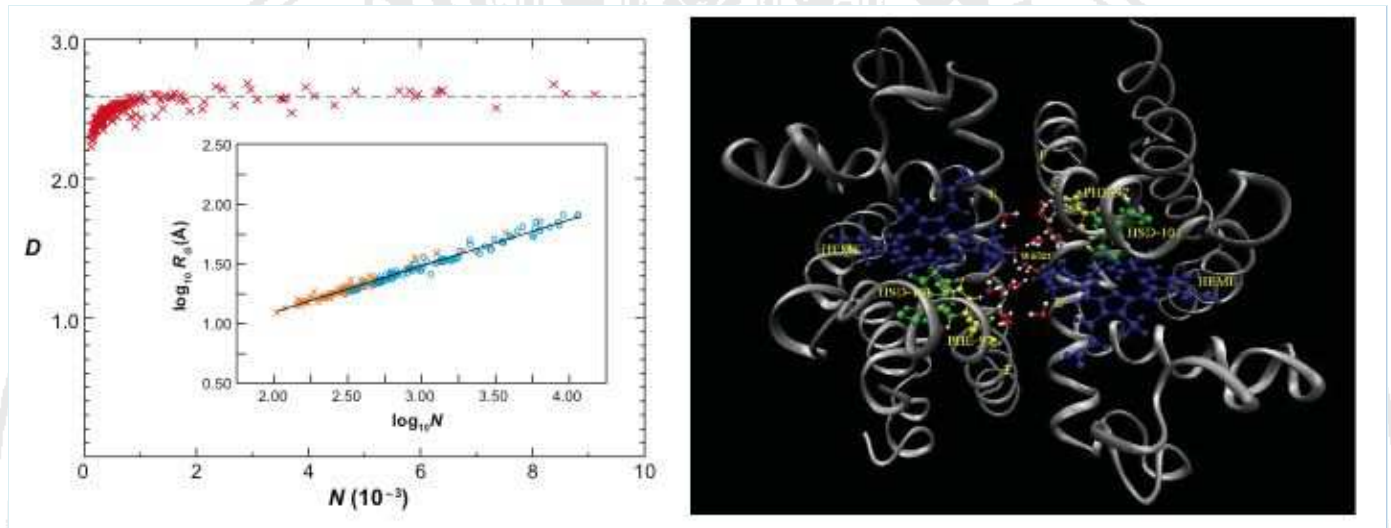


PHYSIKALISCHES KOLLOQUIUM

AM 26. MAI 2014 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



ENERGY TRANSFER IN MOLECULAR SYSTEMS

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Energy flow in molecules mediates numerous biological processes, including vision, olfaction, photosynthesis, to name a few, and controls thermal properties of many nanoscale materials. A description of energy transport in molecular systems also requires addressing the role of interfaces between individual molecules and their local environment. I will survey experimental and theoretical studies of thermal transport through molecular chains and films and discuss our recent work on thermal boundary conductance between molecules and solids. I then discuss energy transport in proteins and protein complexes, the molecular machines of the cell, and the connection to recent measurements of local temperature in the cell and thermogenesis.