



**TIFR Centre for Interdisciplinary Sciences,
Narsingi, Hyderabad 500075**

Seminar

**Using NMR to Study Transiently Populated (Invisible) Minor
Conformers of Protein**

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At ambient temperature proteins move on a rugged free energy surface adopting many conformations other than the dominant one with different populations and lifetimes. The minor conformers have low populations and are transiently populated making them invisible in conventional NMR spectra and cannot be studied by most biophysical tools. This talk will consist of two parts. In the first part the novel CPMG NMR methods that we have developed to obtain structures of transiently populated protein conformers with ~millisecond lifetime will be introduced [1, 2] and their application to the T4 lysozyme system will be presented [3]. In the second part recent results on how the FF domain protein crosses the energy barrier between the native state and a folding intermediate will be presented [4 5].

Monday, Nov 11th 2013

4:00 PM (Tea/Coffee at 3:30 PM)

Seminar Hall, TCIS