Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad – 500 046

Seminar

Novel and established approaches for structural characterisation of crystalline proteins and amyloid polymorphs using solid-state NMR

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ssNMR can be employed to characterise crystalline proteins, membrane proteins, filamentous proteins and fibrils. The characterisation of fibrils requires a homogeneous population and I will discuss some approaches employed for preparing homogeneous p53 DBD fibrils. Aromatic amino acids play an essential role in protein structure and function and are challenging to characterise by ssNMR. We design a strategy to assign aromatic side-chain spins at fast MAS and obtain distance restraints involving aromatic amino acids. At fast MAS, ^{1}H-^{1}H restraints are required for structure calculation. We redesigned the BASS-SD recoupling sequence to obtain restraints between spectrally similar and distinct protons.

Tuesday, Dec 10th 2024

11:30 Hrs (Tea / Coffee 11:15 Hrs)

Auditorium, TIFR-H