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

Students' Annual Webinar

Detecting a New Intermediate State of the Cavity Mutant of T4 Lysozyme (L99A T4L) Using CEST NMR Experiments

Ved prakash Tiwari

CEST NMR experiments are used to study protein intermediate states, which are 'invisible' to conventional biophysical techniques. Typically, CEST experiments are used to study protein conformations with lifetimes between 5-200 ms and populations as low as ~1%. However, in our recent work, we have established that minor state dips of the CEST profiles can be used to probe other intermediate states of proteins, which are 'invisible' even to CEST. In the current work, we have used the information hidden in the minor state dips of the CEST profiles to detect a new intermediate state of cavity mutant of T4 lysozyme (L99A T4L). This intermediate state has been eluded from detection for the last two decades.

Thursday, Apr 21st 2022

4:00 PM