Watching conformational- and photodynamics of single proteins in solution
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Nature Chemistry, 2010, 2, 179

Single molecules of solution-phase Allophycocyanin, APC, can be observed for over 1 second without immobilization.

When trapped, single APC’s show fluctuations in brightness and fluorescence lifetime, even showing discrete states!

Different molecular brightness-lifetime trajectories are observed, indicative of a fluctuating radiative and non-radiative rate constant!