

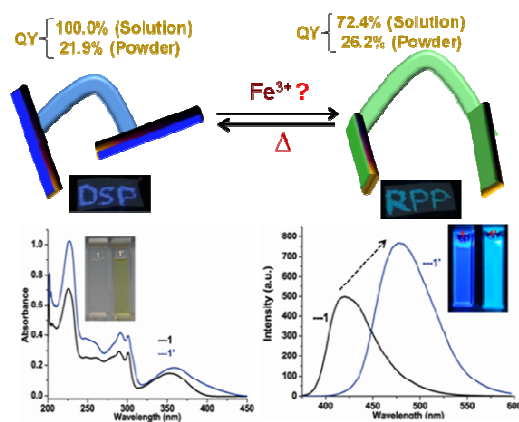
LIGHT INDUCED MOLECULAR ROTOR AND MOLECULAR DYNAMICS

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Research pertaining to the conformational relay of small molecules has fascinated chemists for many years and emerged as a new significant area in chemistry, biology, and medicine. Elegant design of the molecules capable of transforming photochemical, kinetic or chemical energy into a circular motion can lead to the development of molecular rotors. Stimulus dependent conformational switches have been exciting because of their potential application to molecular machines, molecular motors and springlike devices. A better understanding of the conformational switching can be realized by developing a fluorescent molecular rotor and scrutinizing its flipping by means of highly sensitive fluorescence technique. With these standpoints, I would like to briefly discuss the *Light Induced Molecular Rotation/dynamics* that may seek various applicative insights in mechanical and chemical areas. I will include my recent result in this field wherein a quinazoline based highly fluorescent, multifunctional and thermoreversible conformational switch has been designed and developed. It presents a Fe^{3+} amenable, highly fluorescent molecular rotor that serves as naked eye and fluorimetric switch.^{1,2}



References:

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