
Seminar

H-Bonding Driven Supramolecular Assembly of Donor-Acceptor Chromophores and Amphiphilic Macromolecules

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In the recent past, we have been engaged in studying H-bonding driven self-assembly of aromatic donor (D) and acceptor (A) chromophores (small molecules and macromolecules) with an aim to control their supramolecular organization by molecular engineering and correlating it with macroscopic properties. Systems investigated include (i) isolated D and A (ii) D- π -A and (iii) D- σ -A type chromophores and also chromophore-conjugated amphiphilic macromolecules. We have shown by appropriate molecular engineering it is possible to gain precise control over their inter-chromophoric interaction (J- or H-aggregation), photophysical properties, mode of co-assembly (alternate or segregated assembly, parallel or anti-parallel stacking) and morphology (fibrillar gel, organic-nanotubes, vesicle, reverse-vesicle and micelle) both in organic and aqueous medium. Highlights of these results will be the topic of the presentation.

Tuesday, Feb 10th 2015

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS