

***The design of thermally activated delayed fluorescent and heavy-atom free room temperature phosphorescent supramolecular assemblies***

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In this presentation, I document our recent efforts to design supramolecular assemblies that emit via thermally activated delayed fluorescence (TADF). These include the first examples of gels, cages and rotaxanes that emit TADF. Further, we demonstrate an unprecedented heavy atom-free or room temperature phosphorescence (RTP) hydrogen-bonded networks and disclose a potential universal strategy for the construction of solid-state RTP systems.