

Séminaire

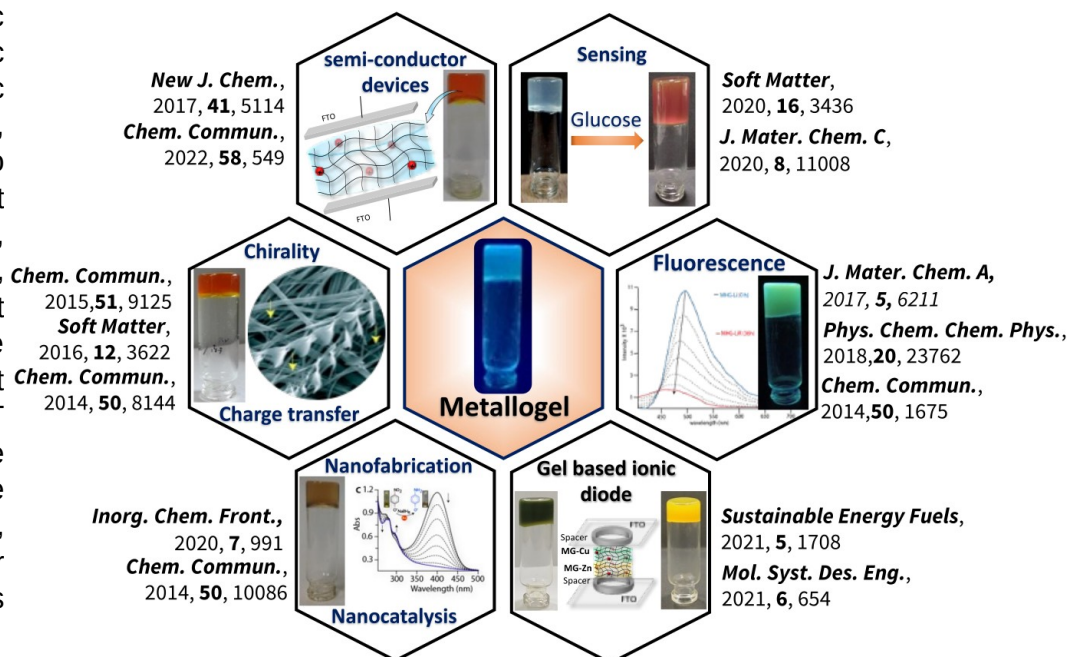
Jeudi 6 juin 2024 à 14h00
Amphithéâtre Henri Benoît

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Molecular Engineering to achieve multi-functional Soft Materials

Introduction of metal components into the organic gels provides an opportunity to fabricate various smart metallogels with added unique properties such as: self-healing behaviour, optical property, conductivity, magnetic activity and catalysis, etc. Till to date, the majority of metallogels still has been serendipitously obtained, rather than a solid sketch for synthetic approach. Taking this in to consideration, we strategically established a library of ligands for metallogelation by using suitable molecular engineering approach. So far, using these precursors, we successfully synthesized various metallogels with excellent optical, rheological, conductance and catalysis properties. For the first time, we demonstrated the in situ nanofabrication and nano-catalysis in the metallogel matrix and only recently explored metallogel matrix for the fabrication of mixed ionic electronic material and ionic diodes for electronic applications. In the recent time, metallogels have been also utilized for various important applications such as, sensing, semiconductor, charge transfer, chirality, fluorescence, soft electronics, etc. Thus, I will be talking about activity of Soft Materials research group, IIT Indore which is dedicated for the development of the multifunctional metallogels, carbon dots and their applications in various directions as demonstrated in the figure.



Les personnes souhaitant rencontrer M. Dubey sont priées de prendre contact avec Philippe Mésini.