

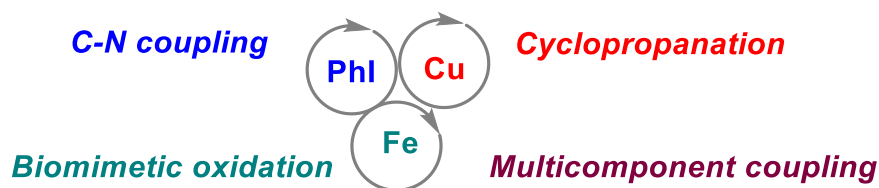
## Webinar

### Exploring New Facets of Organic Synthesis: From Hypervalent Iodine to Metal Catalysis

**Srimanta Manna**

**Stockholm University, Sweden**

The development of operationally simple methods for the rapid and efficient, catalytic construction of high value products from simple starting materials is key to the future of synthetic science. The application of novel and efficient methods for the functionalization of inert and abundant N–H/C–H bonds offers striking advantages in terms of step- and atom economy under environmentally benign reaction conditions. In this presentation, I will be talking about the application of low cost hypervalent iodine reagents for carbon-nitrogen bond formation via N–H bond functionalization, and copper catalysis for carbon-carbon bond formation via C–H bond functionalization will be described. Mechanistic insight into these processes will be discussed. Secondly, the use of low-cost copper catalysis towards an efficient three-component enantio- and diastereoselective coupling for high values amines and heterocycles synthesis will be presented. In the last part of presentation, I will be talking about biomimetic oxidation merging iron and hybrid catalyst.



#### References:

*Angew. Chem. Int. Ed.* **2020**, 59, 487; *ChemSusChem* **2019**, 12, 3094;. *Chem. Eur. J.* **2017**, 23, 7825; *Chem. Eur. J.* **2017**, 23, 10936; *Angew. Chem. Int. Ed.* **2016**, 55, 5290; *Chem. Commun.* **2016**, 52, 12486; *Synlett* **2015**, 26, 1785; *Org. Lett.* **2015**, 17, 4588; *Chem. Commun.* **2015**, 51, 6119; *Angew. Chem. Int. Ed.* **2015**, 54, 14845; *Org. Lett.* **2015**, 17, 4300; *Angew. Chem. Int. Ed.* **2014**, 53, 8163; *Angew. Chem. Int. Ed.* **2014**, 53, 7324; *Angew. Chem. Int. Ed.* **2013**, 52, 12669;. *Eur. J. Org. Chem.* **2013**, 2013, 5247; *Chem. Commun.* **2013**, 49, 5286; *J. Am. Chem. Soc.* **2013**, 135, 3355; *Angew. Chem. Int. Ed.* **2013**, 52, 9747; *Eur. J. Org. Chem.* **2013**, 2013, 5251; *Org. Lett.* **2012**, 14, 1736; *Angew. Chem. Int. Ed.* **2011**, 50, 12140. *Angew. Chem. Int. Ed.* **2020**, 10.1002/anie.202007251; *Chem. Sci.* **2020**, 11, 11380.

**Wednesday, Feb 17<sup>th</sup> 2021**

**4:00 PM**