

## **Students' Annual Seminar**

### **Stable organic radicals and diradical/diradicaloids stabilized by imidazolium and pyrrolinium scaffold**

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Organic carbon centered radicals are important class of compounds involved in various chemical and biological processes.<sup>[1]</sup> In recent years the synthesis of molecules with having multiple centres of carbon radicals are considerably increased for the design of high-spin organic ferromagnetic materials.<sup>[2]</sup> Recent reports reflects that by imidazolium and pyrrolinium moiety stabilized diradicaloids have potential to take part in singlet fission.<sup>[3]</sup>

Herein, I will discuss some of recent work on the synthesis of organic radicals and diradicaloids in a straightforward method and from easily accessible starting material.

#### **References:**

[1]. a) P. Renaud, M. P. Sibi, Radicals in Organic Synthesis, Wiley-VCH, Weinheim, **2001**; b) B. Halliwell, J. M. C. Gutteridge, Free Radicals in Biology and Medicine, 5th ed., Oxford University Press, Oxford, **2015**.

[2] a) D. Yuan, Y. Guo, Y. Zeng, Q Fan, J. Wang, Y. Yi, X. Zhu, *Angew. Chem. Int. Ed.* 10.1002/anie.201814544. b) N. Gallagher, H. Zhang, T. Junghoefer, E. Giangrisostomi, R. Ovsyannikov, M. Pink, S. Rajca, M. B. Casu, A. Rajca, *J. Am. Chem. Soc.* 10.1021/jacs.9b00558.

[3] J. Messelberger, A. Grünwald, P. Pinter, M. M. Hansmann, D. Munz, *Chem. Sci.* **2018**, 9, 6107.

**Friday, Mar 8<sup>th</sup> 2019**

**11:00 AM (Tea/Coffee at 10:15 AM)**

**Seminar Hall, TIFR-H**