

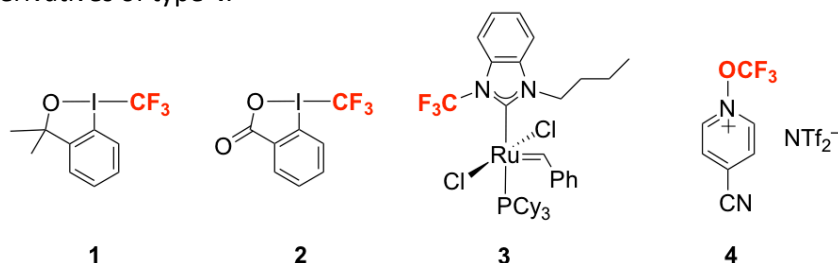
The Rich Chemistry of Perfluoroalkylation: Reagents, Applications and Mechanisms

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The lecture shall present a brief overview of the most important aspects of trifluoromethylation and perfluoroalkylation by hypervalent iodine reagents of type **1** and **2**,¹ including the use of selected trifluoromethylated derivatives such as complex **3**.² Recent progresses in the area of radical trifluoromethoxylation will complete the presentation. This includes reagent development and characterisation, as well as EPR studies demonstrating the efficient generation of the OCF₃ radical in solution from pyridinium derivatives of type **4**.³



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¹ J. Charpentier, N. Früh, A. Togni, P.S. *Chem. Rev.* **2015**, *115*, 650-682.

² Engl, C.B. Santiago, C.P. Gordon, W.-C. Liao, A. Fedorov, C. Copéret, M.S. Sigman, A. Togni, *J. Am. Chem. Soc.* **2017**, *139*, 13117-13125.

³ B.J. Jelier, P.F. Tripet, E. Pietrasiak, I. Franzoni, G. Jeschke, A. Togni, *Angew. Chem. Int. Ed.* **2018**, *57*, 13784-13789.