

Haloenol Phosphates: Their Preparation and Application in Organic Synthesis

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The construction of C–C single bond still represents a desirable target of current organic synthesis. Traditionally, halogen atom containing substrates are used to achieve designed transformations. On the contrary to the halogen templates, molecules with activated C–O bond is attractive tool en route to functionalized molecules due to their low toxicity and good availability compared to halogens containing building blocks. In our research we are combining advantages of both building blocks emerging haloenol phosphates as powerful tool for the synthetic transformations. The presence of halide and phosphate moiety which significantly differ in reactivity during cross-coupling reactions opens new possibilities for the synthesis of functionalized molecules. Thus, the topic of my talk will cover the most recent results devoted to applications of haloenol phosphate templates for the stereoselective synthesis of tetrasubstituted alkene and heterocycles.

Biography:

Tomas Tobrman was born in 1977 in Plzeň, Czech Republic. He received his Ph.D. (2005) in organic chemistry from the University of Chemistry and Technology, Prague (UCT Prague). In 2004–2005 he was a visiting student in the group of Prof. Tobias Rein (KTH, Sweden). In 2008 he joined the group of Prof. Ei Ichi Negishi (Purdue University, USA) as postdoc. In 2009 he returned to the UCT Prague where he became an associate professor in 2015. His current research interest covers transition-metalcatalysed reactions, stereoselective synthesis of tetrasubstituted alkenes, synthesis of π -conjugated molecules as materials for organic electronics and heterocyclic chemistry.