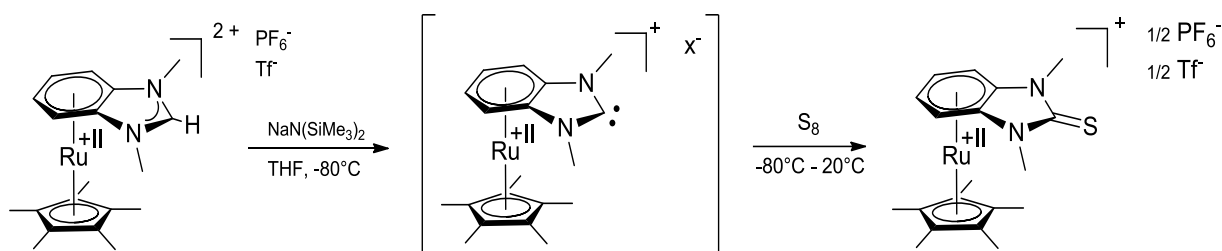


## A New *N*-Heterocyclic Carbene Containing a Cationic Metallocene Backbone

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*N*-Heterocyclic carbene chemistry continues to be an attractive research area. Since the isolation of a free, heteroatomic-stabilized carbene in the early 1990's by Arduengo et al.<sup>[1]</sup>, a rapid expansion of a whole new research area took place and, although twenty years later, many aspects in carbene chemistry remain uninvestigated. Here, we describe the development of a new cationic *N*-heterocyclic carbene containing an annelated metallocene in the backbone.



There are only few examples of *N*-heterocyclic carbenes in literature in which the carbene center is in a direct conjugation with the electronic system of the metallocene.<sup>[2, 3, 4, 5]</sup> Some aspects of further investigations might be the electronic properties of the new carbene, referring to its potential to be a  $\pi$ -acceptor-ligand, and its catalytic activity in aqueous cross-coupling reactions.

### Literature:

[1] A. J. Arduengo, R. L. Harlow, M. Kline, *J. Am. Chem. Soc.* **1991**, *113*, 361. [2] A. J. Arduengo, D. Tapu, W. Marshall, *Ang. Chem.* **2005**, *117*, 7406-7410. [3] A. J. Arduengo, D. Tapu, W. Marshall, *J. Am. Chem. Soc.* **2005**, *127*, 16400-16401. [4] U. Siemeling, C. Färber, C. Bruhn, *Chem.Comm.* 2008, 98-100. [5] D. M. Khramov, E. L. Rosen, V. M. Lynch, C. W. Bielawski, *Ang. Chem.* **2008**, *120*, 2299-2302.