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## HYDROLYSIS OF SOME *C,N*-CHELATED ORGANOTIN(IV) SPECIES USED IN CATALYSIS

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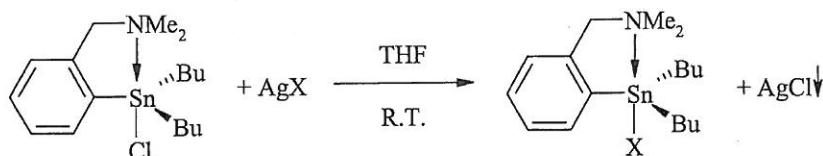
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Organotin(IV) species bearing the 2-(*N,N*-dimethylaminomethyl)phenyl- moiety as a *C,N*-chelating ligand ( $L^{CN}$ ) are studied since seventieth of the last century.<sup>1</sup> Significant intramolecular contact between tin and nitrogen atoms is the typical phenomenon for this class of compounds. Both structure and reactivity of *C,N*-chelated organotin(IV) compounds has been studied thoroughly at our department, too.<sup>2</sup>

Recently, we have aimed our attention to the chemistry of *C,N*-chelated organotin(IV) trifluoroacetates and triflates (Scheme 1). We have reported on the structure and reactivity of these new species and some catalytic experiments were carried out as well.<sup>3</sup>



**Scheme 1:** Preparation of *C,N*-chelated organotin(IV) triflates ( $X = \text{OSO}_2\text{CF}_3$ ) and trifluoroacetates ( $X = \text{OC(O)CF}_3$ )

Reactivity of selected *C,N*-chelated organotin(IV) species towards cyclohexene oxide, ethylene carbonate, and  $\text{CO}_2$  will be discussed in the term of the poster. Structure of organotin(IV) hydrolytic products isolated from respective reaction mixtures will be described as well.

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### References:

- Jastrzebski, J. T. B. H.; van Koten, G.: *Adv. Organomet. Chem.* **1993**, 35, 241-294. <sup>2</sup>
- For example: Švec, P., Růžička, A.: *Main Group Met. Chem.* **2011**, 34, 7-25. <sup>3</sup> a) Švec, P.; Olejník, R.; Padělková, Z.; Růžička, A.; Plasseraud, L.: *J. Organomet. Chem.* **2012**, 708, 82-87. b) Weidlich, T.; Dušek, L.; Vystrčilová, B.; Eisner, A.; Švec, P.; Růžička, A.: *Appl. Organomet. Chem.* **2012**, 26, 293-300. c) Švec, P.; Padělková, Z.; Růžička, A.; Weidlich, T.; Dušek, L.; Plasseraud, L.: *J. Organomet. Chem.* **2011**, 696, 676-686.