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

Petr Švec,^{a*} Roman Olejník,^a Marie Sajfrtová,^b Zdeňka Padělková,^a Aleš Růžička^a

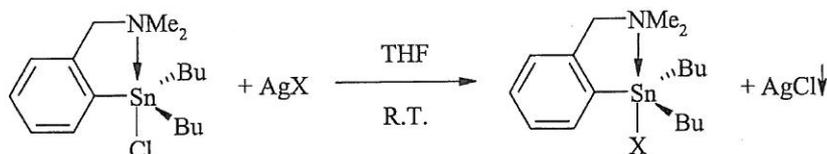
^aDepartment of General and Inorganic Chemistry, Faculty of Chemical Technology, University of Pardubice, CZ-532 10 Pardubice, Czech Republic

^bInstitute of Chemical Process Fundamentals of the ASCR, Rozvojová 2/135, CZ-165 02 Prague 6 – Suchbát, Czech Republic

*e-mail: petr.svec2@upce.cz

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.¹ 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.²

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.³



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 CO₂ 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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- For example: Švec, P., Růžička, A.: *Main Group Met. Chem.* **2011**, 34, 7-25. ³ 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.