

## Catalysis of Reactions of Allyltin Compounds and Organotin Phenoxides

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We have studied reactions of different allyltin compounds with 4-phenyl-1,2,4-triazoline-3,5-dione, diethyl azodicarboxylate and singlet oxygen in diethyl ether in the absence and presence of  $\text{LiClO}_4$ . A strong catalytic effect of lithium perchlorate has been observed.

We have also carried out the analogous studies with organotin phenoxides.

The use of stannylation of phenols enhances their reactivity towards electrophiles such as DEAD, bis(trichloroethyl) azodicarboxylate and ethyl propiolate.

The tri-*n*-butyltin phenoxides can be easily prepared by azeotropic dehydration of a mixture of phenol and bis(tri-*n*-butyltin oxide) in toluene. They react at room temperature with both azodicarboxylates to produce *para*-substituted phenolic hydrazides in high yields. Whereas, their reaction at room temperature with ethyl propiolate gives either the derivatives of 3-phenoxyacrylic acid ethyl ester or 3-(2-hydroxyphenyl)acrylic acid ethyl ester. We have carried out the comparative studies of amination and vinylation of different phenols catalysed by  $\text{LiClO}_4$ ,  $\text{SnCl}_4$  and  $\text{Et}_3\text{N}$ . We have also studied the mechanisms of these reactions.

### Biography:

Wojciech Kinart was born on the 17<sup>th</sup> of May 1953 in Lodz. He graduated from the University of Lodz in 1977. On the 17<sup>th</sup> of April 1980, he was awarded the Ph.D Degree in Chemistry. In 1996 he was awarded the habilitation degree in Chemistry at the University of Lodz. He was the author of 120 papers, two chapters in Comprehensive Heterocyclic Chemistry III, Oxford, 2008; and one chapter in Tin Chemistry: Fundamentals, Frontiers and Applications, Wiley, 2008. Research areas of his interest include: organometallic chemistry, organic and organometallic peroxides, ene reaction and metalloene reaction, physicochemical studies of equilibria in liquid solvent mixtures.