



INNOVABALT SEMINAR SERIES, Fall 2014

Professor Edvīns Vedējs

An Overview of Modern Heteroatom Chemistry Based on Current Literature

Small Conference Hall of Latvian Institute of Organic Synthesis, Aizkraukles str.21, Riga

Time of lectures: 14.00 -16.00

29th -30th October

I. Concepts and Current Fashions; Miscellaneous Advances in Synthetic Chemistry.

A. Generating an Independent Research Project: Inspiration, Invention, Publication

B. Emerging Concepts

N-Heterocyclic Carbenes (NHC's)

Photoredox Catalysis

Frustrated Lewis Pairs (FLP's)

Nucleophilicity vs. Electrophilicity and the Mayr Scale

C. Organocatalysis; How Much More?

D. New Methodology; Simplest is Usually Best

3rd, 4th, 5th November

II. Advances in Heteroatom Chemistry (N, O, S, P)

A. Formation of N, O Bonds

B. Heterocycle Applications

C. Organosulfur Reagents and Methods

D. Organophosphorus Reagents and Methods

E. Halogen-Based Methodology (Br, I)

6th, 10th 11th, 12th November

III. Advances Using Heteroelement Reagents Based on B, Si, Sn, Mg, Cu, Zn

A. Improving Classical Organoboron Chemistry

B. Borylation Chemistry

C. Preparation and Uses of Bpin Intermediates

Enantioselective C-B Bond Formation

Activation of B-B and B-Si Bonds

D. Silicon and Tin Reagents

E. Nucleophilic Reagents Based on Mg, Cu, Zn

Functional Group Compatibility

Enantioselectivity

13th November

IV. Selected Best Recent Transition Metal Methods