This Cluster provides insights into some of the most recent advances and aspects in the field of transformations catalyzed by organosulfur and organoselenium compounds. Enjoy eleven wonderful contributions by experts in this field!

X. Zhang

First example of pollutant degradation through Se catalysis

A. Tsuchihashi  S. Shirakawa

S. Huber

Hak-Fun Chow
The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong

Ying-Yeung Yeung
The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong

Organosulfur and Organoselenium Compounds in Catalysis
H. Li      L. Liao      X. Zhao

Unusual kinetic behavior!
- 0.5 order in substrate
- 0.5 order in sulf. agent
- 1st order in catalyst

Rate unaffected by R

K. Robb     S. Athavale     S. Denmark

M.-H. Xu

70–99% yield, up to 83% ee
Cluster

A. Dinh A. Nguyen J. Gustafson

photocatalyst Na₂S₂O₈, base additive MeCN–H₂O blue LED, 12 h, r.t.

NH

S

NH

O

NH

O

S

NH

O

S

NH

O

R = alkyl or benzyl
18–78%
20 examples

L. Yu X. Jiang

C₂-Symmetric Sulfur Based Chiral Catalyst for Bromolactonization

PhNH₂ + H₂O₂ (4-MeC₆H₄Se)₂ (cat.) aqueous HCl, 1 day

polyaniline 82%

L. Yu

S. Kumar S. Jana