第252回触媒化学研究センター談話会

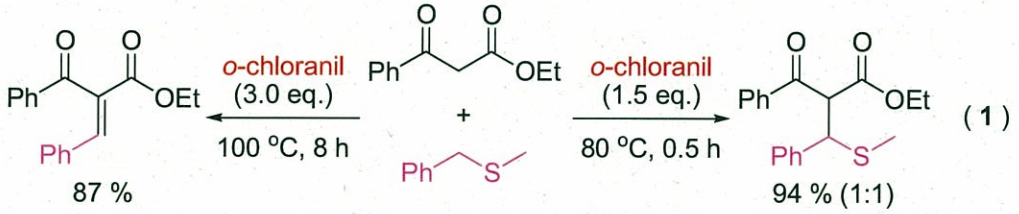
演　題：The application of *o*-chloranil in C-C bond formation

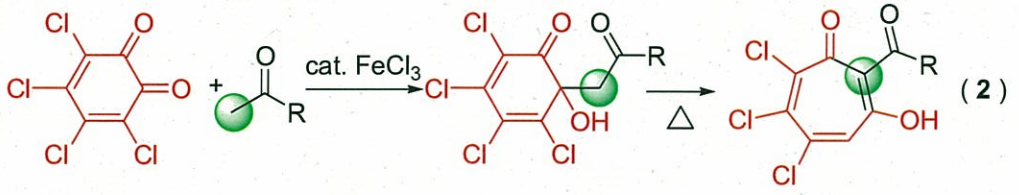
講演者：Zhiping Li(北海道大学触媒化学研究センター特任准教授)

日　時：　２００９年３月２５日（水）
16:00−18:00

会　場：北海道大学創成科学研究棟　５階 大会議室

要　旨：C-C bond formation is an important research topic in organic synthesis. o-Chloranil (tetrachloro-o-benzoquinone) is usually used as an oxidant in oxidation reactions. During our studies on C-H bond oxidation, o-chloranil was applied efficiently in C-C bond formation. Two types of C-C bond formation using o-chloranil will be discussed: (1) a novel Pummerer-type reaction is developed via o-chloranil-mediated C-H bond oxidation. The reaction presents a simple and efficient method to construct sulfide derivatives. Interestingly, the Knoevenagel-type reaction is selectively achieved by controlled reaction conditions (Eq.1); (2) efficient iron-catalyzed cross-aldol reactions of o-chloranil and methyl ketones are developed. Importantly, the formed aldol products are efficiently transformed into cyclohepta-2,4,6-trienone derivatives (tropones) under thermal condition via ring-expansion reactions (Eq.2).





《連絡先》北大触媒化学研究センター　分子触媒化学研究部門

高橋　保　(TEL: 011-706-9149)

Catalysis & Materials Science
Hokkaido University GCOE Program, 2007-2011