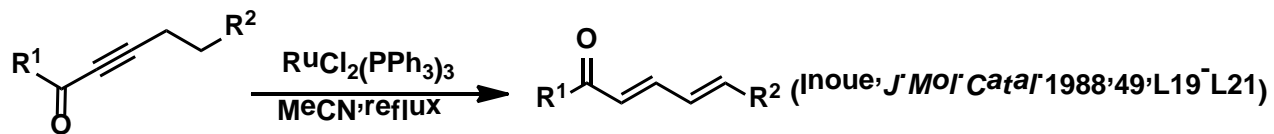
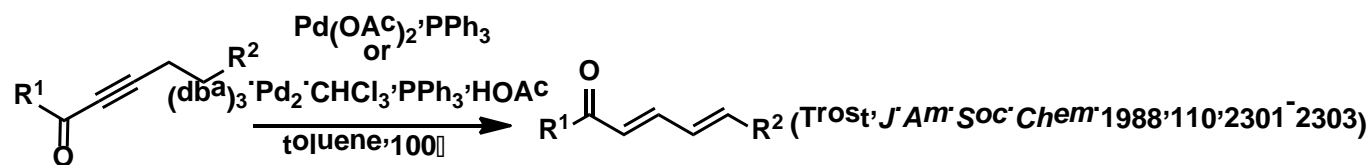
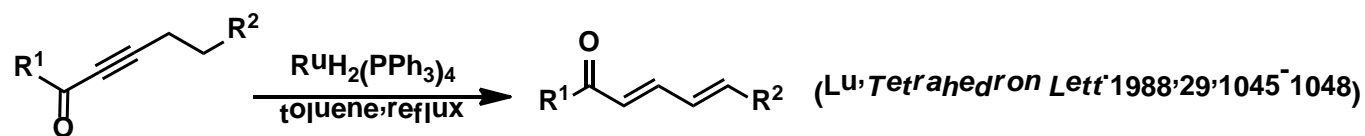


陆熙炎-Trost-Inoue反应



INTRODUCTION

- Born 1928, in Suzhou
- 1951, Zhejiang University, B.A
- 1984, PhD Tutor
- 1985, researcher of Shanghai Institute of Organic Chemistry
- 1991, Academician of Chinese Academy of Sciences
- 1999, Second Prize of National Natural Science Award



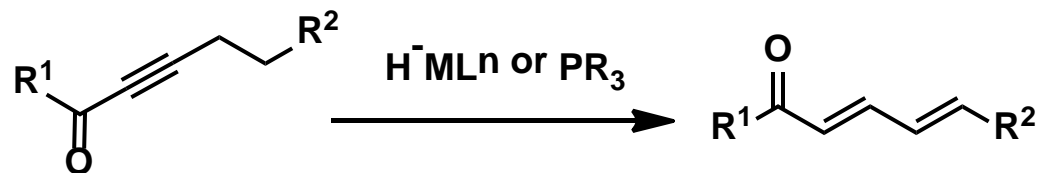
Xiyan Lu

- Born 1941, Philadelphia
- University of Pennsylvania, B.A
- 1965, MIT, PhD
- 1987, Professor of Chemistry, Stanford University
- Contribution: Atomic economy, Trost asymmetric allylation reaction, Trost cyclopentane synthesis, Trost oxidative decarboxylation, Trost-Chen decarboxylation reaction, Tsuji-Trost reaction, Trost ligand



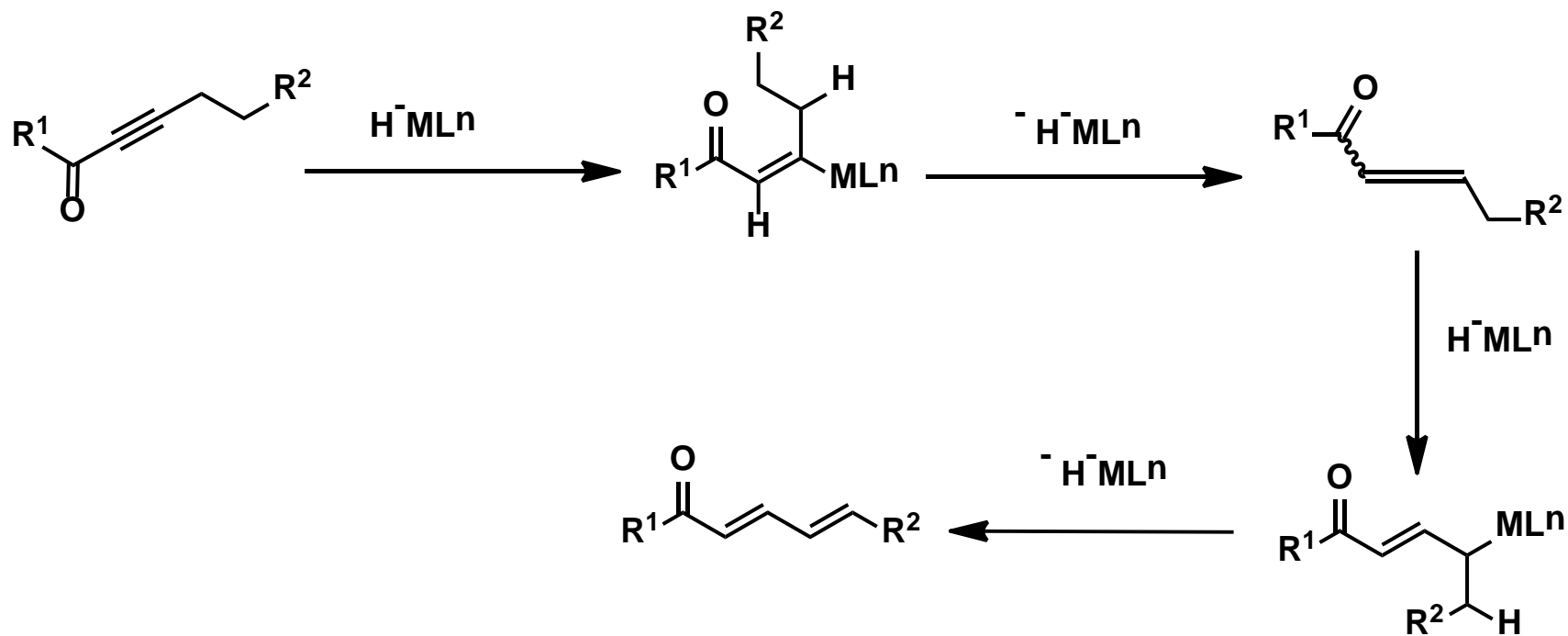
Barry Trost

FEATURES

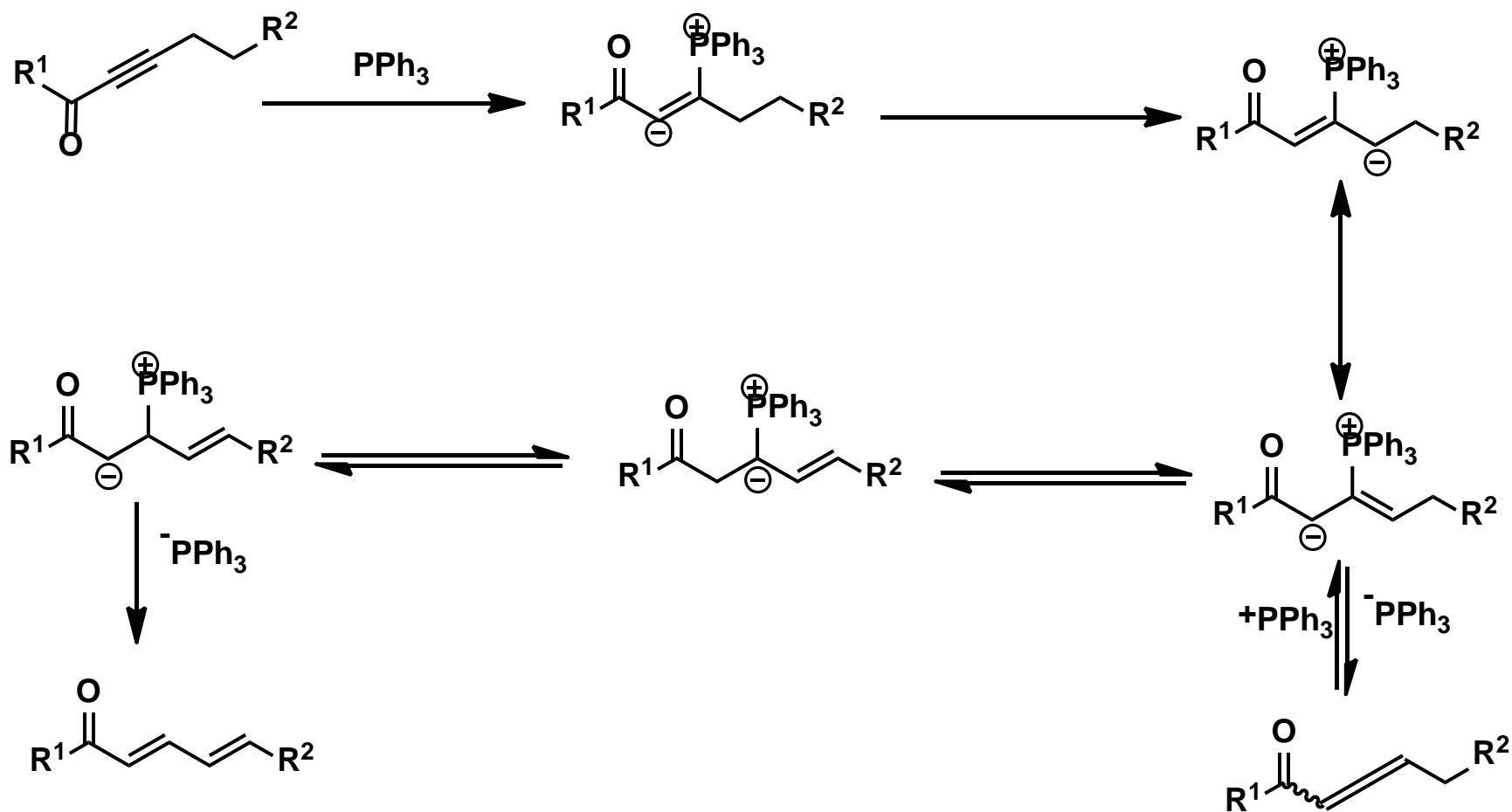


1. Electron-poor alkynes such as alkynone or alkynyl ester form a conjugated diketene under the catalysis of a transition metal catalyst or trivalent phosphine
2. The product of the reaction is *E, E*-configuration
3. [IrH₃(*i*Pr₃P)₂] is a better catalyst for this reaction, and the conversion rate of the reaction increases under the same conditions
(*J.Org.Chem.*1989,54,1105-1109)
4. Adding a catalytic amount of tertiary phosphine to the reaction, the temperature of this reaction can be reduced

MECHANISM

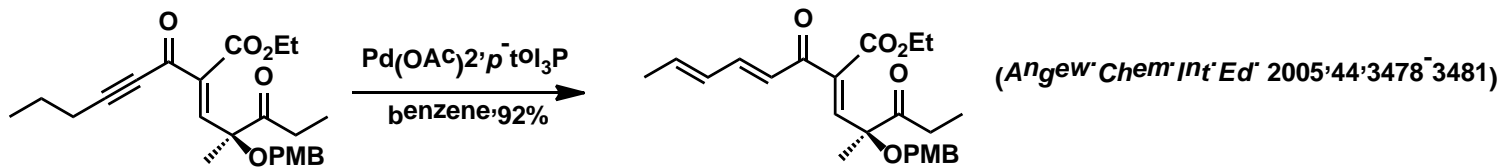
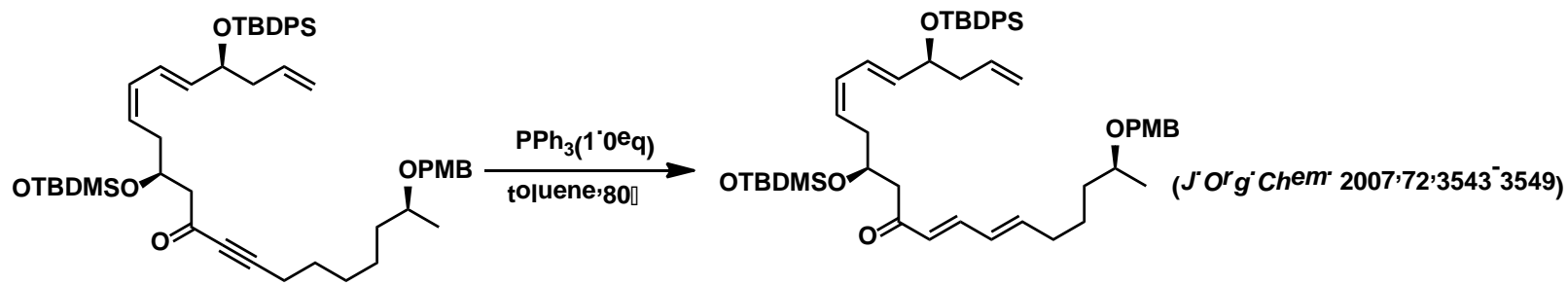
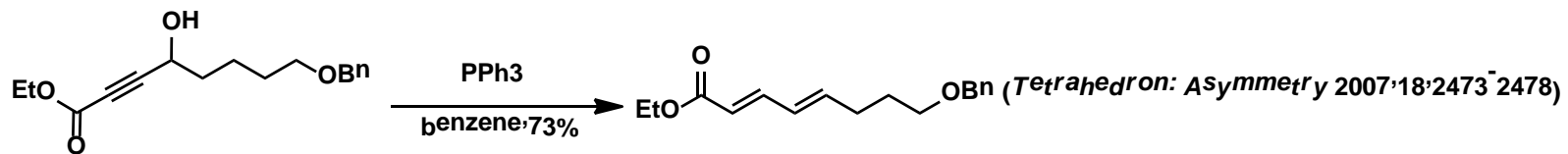


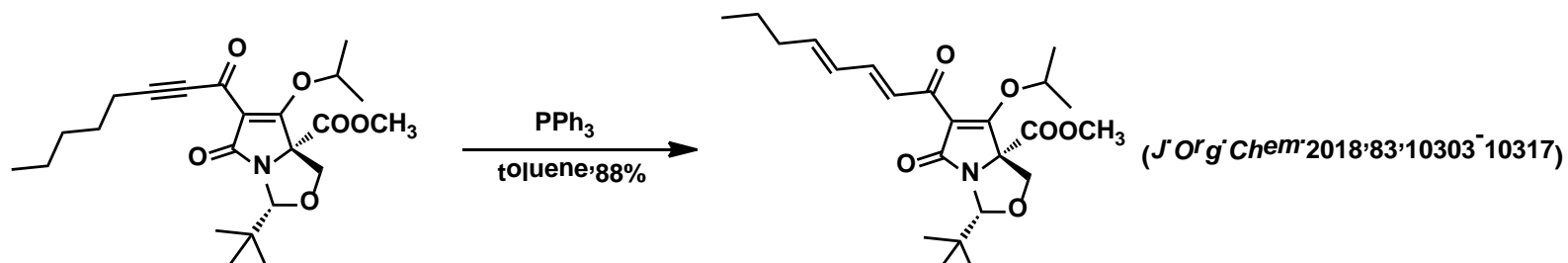
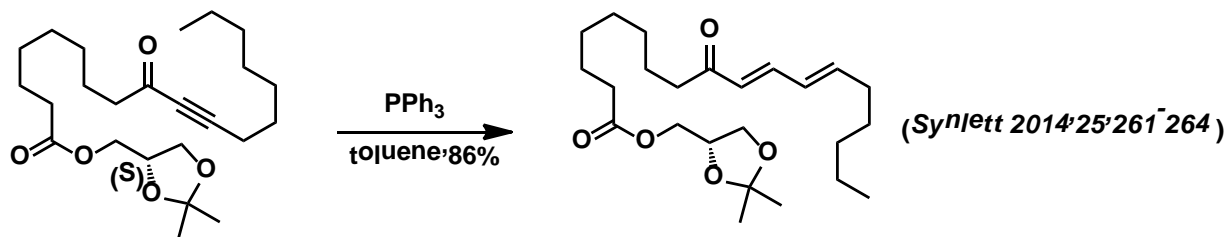
Lu-Trost-Itinone reaction mechanism catalyzed by transition metals



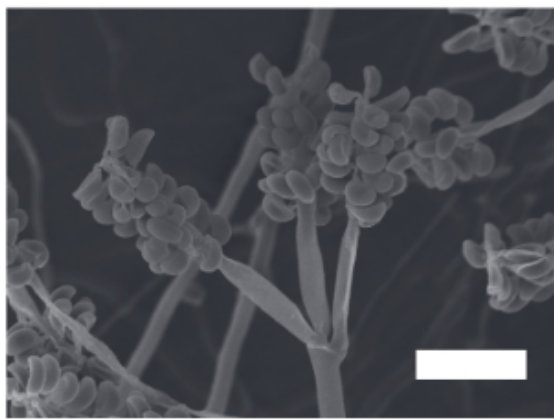
Lu-Trost-Inoue Reaction mechanism Catalyzed by Tertiary Phosphine

APPLICATION



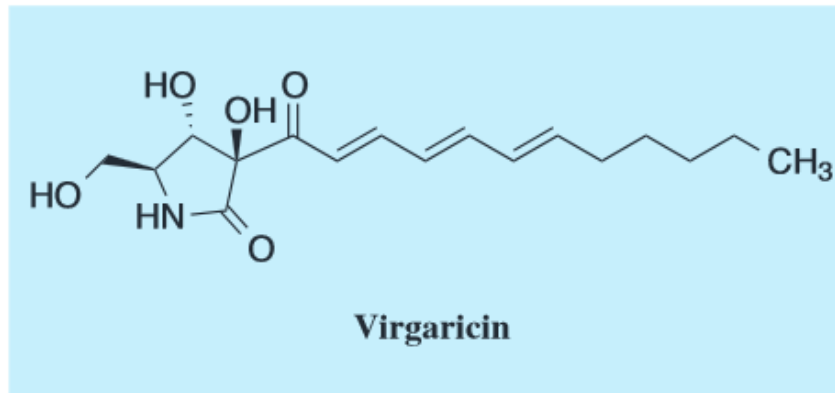


Virgaricin was isolated from a culture broth of a new fungal species, *Virgaria boninensis* FKI-4860^T, as a result of investigation of the organism's metabolites. Virgaricin exhibited some weak antimicrobial activity.



Virgaria boninensis FKI-4860^T

Bar: 10 μm



THANKS FOR YOUR ATTENTION!