



第234回触媒化学研究センター談話会

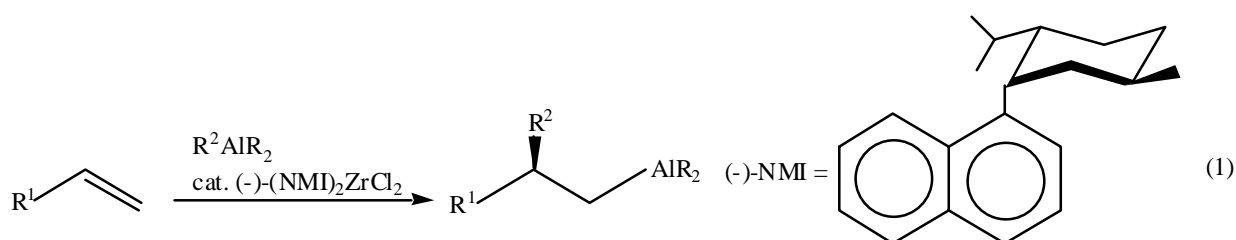
講師：根岸 英一 教授

(アメリカ パーデュー大学 Herbert C. Brown 特待教授)

演題: Zr-Catalyzed Asymmetric Carboalumination of Alkenes (ZACA Reaction).

A Prototypical Catalytic Asymmetric C - C Bond Formation of Substrate of One-Point Binding

要旨：



- (1) The ZACA reaction (eq. 1) discovered in 1995 is related but discrete from the Ziegler-Natta-Kaminsky polymerization and the Dghemilev ethylmagnesiumation (**Avoid polymerization and cyclic carbozirconation: Breakthrough No. 1**).
- (2) The lower enantioselectivity in methylalumination can be circumvented (**Breakthrough No. 2**).
- (3) A series of 2 asymmetric processes of **an average of 80% ee** leads to an overall **enantioselectivity of $\geq 98\%$ ee** (**Well-known Principle No. 1**).
- (4) Diastereomeric mixtures of can be **readily separated by chromatography**. (**Breakthrough No. 3**).
- (5) **One-pot homologation** of deoxypolypropionate chains can be achieved in ca. 70% yields (*JACS* **2005**, 127, 2838) (**Break through No. 4**).
- (6) Combined use of ZACA reaction and the **lipase-catalyzed acetylation** is synergistic and practical (*ASC* **2007**, 349, 539). Through exploitation of the findings and known principles, a wide range of charal natural products can be asymmetrically synthesized..

日 時：2008年5月20日(火) 16:00~

会 場：北海道大学工学部材料・化学系棟 MC030

共 催：北海道大学グローバルCOE

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