

平成22年度 研究業績

馬場章夫 (大阪大学大学院工学研究科、A01班 公募研究)

1. 発表論文等 (査読付き論文, 著書, 総説等の発表状況)

- (1) Characterization of the nucleophilic allylindium species generated from allyl bromide and indium(0) in aqueous media

Yasuda, M.; Haga, M.; Nagaoka, Y.; Baba, A.\* *Eur. J. Org. Chem.* **2010**, 28, 5359-5363.

- (2) Regioselective carboidation of simple alkenes with indium tribromide and ketene silyl acetals

Nishimoto, Y.; Ueda, H.; Inamoto, Y.; Yasuda, M.; Baba, A.\* *Org. Lett.*, **2010**, 12, 3390-3393.

- (3) Synthesis and theoretical studies of gallium complexes back-shielded by a cage-shaped framework of tris(*m*-oxybenzyl)arene

Nakajima, H.; Yasuda, M.; Chiba, K.; Baba, A.\* *Chem Commun.* **2010**, 4794-4796.

- (4) Indium Triiodide Catalyzed Direct Hydroallylation of Esters

Nishimoto, Y.; Inamoto, Y.; Saito, T.; Yasuda, M.; Baba, A.\* *Eur. J. Org. Chem.* **2010**, 3382-3386.

- (5) In Situ Observation of Nonequilibrium Local Heating as an Origin of Special Effect of Microwave on Chemistry

Tsukahara, Y.\*; Higashi, A.; Yamauchi, T.; Nakamura, T.; Yasuda, M.; Baba, A.; Wada, Y.\* *J. Phys. Chem. C*, **2010**, 114, 8965-8970.

- (6) Cyclopropylmethylation of Benzylic and Allylic Chlorides with Cyclopropylmethylstannane Catalyzed by Gallium or Indium Halide

Kiyokawa, K.; Yasuda, M.; Baba, A.\* *Org. Lett.* **2010**, 12, 1520-1523.

- (7) Diastereoselective Reductive Aldol Reaction of Enones to Ketones Catalyzed by Halogenotin Hydride

Shibata, I.; Tsunoi, S.; Sakabe, K.; Miyamoto, S.; Kato, H.; Nakajima, H.; Yasuda, M. Baba, A.\* *Chem. Eur. J.* **2010**, 16, 13335-13338.

- (8) Novel catalysts: Indium implanted SiO<sub>2</sub> thin films

Yoshimura, S.; Hine, K. Kiuchi, M.; Nishimoto, Y.; Yasuda, M. Baba, A.; Hamaguchi.

## 2. 学会発表等（国内外の招待講演および国際会議での発表状況）

- (1) Synthesis and Application of Alkenylindium by Carboindation Using Indium Tribromide, Alkynes, and Ketene Silyl Acetals  
Nishimoto, Y.; Yasuda, M.; Baba, A. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.15-20（ポスター発表）.
- (2) Selective Synthesis of Homoallylic Alcohol or Homoallylic Ether by Indium Triiodide Catalyzed Direct Hydroallylation of Ester  
Inamoto, Y.; Nishimoto, Y.; Yasuda, M.; Baba, A. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.15-20（ポスター発表）.
- (3) Evaluation of Back-Shielded Gallium Complexes by Theoretical Calculation and Their Application for A Catalytic Reaction  
Nakajima, H.; Yasuda, M.; Baba, A. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.15-20（ポスター発表）.
- (4) Coupling Reaction of Benzylic and Allylic Chlorides with Butenylgallium or -indium Species  
Kiyokawa, K.; Yasuda, M.; Baba, A. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.15-20（ポスター発表）.
- (5) Indium Trichloride/Trimethylsilyl Bromide-Catalyzed  $\alpha$ -Alkylation of Carbonyl Compounds by the Direct Use of Alcohol Derivatives and Vinyl Esters  
Onishi, Y.; Nishimoto, Y.; Yasuda, M.; Baba, A. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.15-20（ポスター発表）.

## 3. 特許

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## 4. 学会・シンポジウム等の開催状況

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## 5. 受賞等

(1) 清川謙介 (博士2年)

ポスター賞 第57回有機金属化学討論会, 2010.9.9-11

(2) 中島秀人 (博士2年)

ポスター賞 第21回基礎有機化学討論会, 2010.9.9

(3) 中島秀人 (博士2年) 日本化学会第91春季年会, 2010.3.29-29

## 6. 新聞報道等

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## 7. 領域内の共同研究の準備・実施状況とその成果

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## 8. その他特記事項

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