

平成22年度 研究業績

白川誠司（京都大学大学院理学研究科、A01班 公募班員）

1. 発表論文等（査読付き論文、著書、総説等の発表状況）

- (1) Catalytic Asymmetric Synthesis of 1,1-Disubstituted Tetrahydro- β -carbolines by Phase-Transfer Catalyzed Alkylation
Shirakawa, S.; Liu, K.; Ito, H.; Maruoka, K. *Chem. Commun.* **2011**, 47, 1515–1517.
- (2) Chiral Bifunctional Phase Transfer Catalysts for Asymmetric Fluorination of β -Keto Esters
Wang, X.; Lan, Q.; Shirakawa, S.; Maruoka, K. *Chem. Commun.* **2010**, 46, 321–323.
- (3) Phase-Transfer-Catalyzed Asymmetric Conjugate Additions of β -Ketoesters to Acetylenic Ketones
Lan, Q.; Wang, X.; Shirakawa, S.; Maruoka, K. *Org. Process Res. Dev.* **2010**, 14, 684–686.
- (4) Asymmetric Phase-Transfer and Ion Pair Catalysis
Shirakawa, S.; Maruoka, K. In *Catalytic Asymmetric Synthesis*, 3rd ed; Ojima, I. ed.; John Wiley & Sons: Hoboken, New Jersey, 2010; Chapter 2C, pp 95–117.

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) Development of a Base-Free Chiral Phase-Transfer Reaction System
Shirakawa, S.; Wang, L.; He, R.; Maruoka, K. The 2010 International Chemical Congress of Pacific Basin Societies (Pacificchem 2010), Honolulu, Hawaii, USA, 2010.12.15–20 (ポスター発表).
- (2) Practical Enantioselective Synthesis of Optically Active 1,1-Disubstituted Tetrahydro- β -carbolines by Phase-Transfer-Catalyzed Alkylation
Liu, K.; Shirakawa, S.; Maruoka, K. The 2010 International Chemical Congress of Pacific Basin Societies (Pacificchem 2010), Honolulu, Hawaii, USA, 2010.12.15–20 (ポスター発表).
- (3) Phase-Transfer Catalyzed Enantioselective Conjugate Additions of α -Nitro Esters to Maleimides under Neutral Conditions
Terao, S. J.; Shirakawa, S.; Maruoka, K. The 6th International Symposium on Intergrated Synthesis (ISIS-6), Maiko Villa Kobe, Kobe, Japan , 2010.10.23–24 (ポスター発表).

(4) Development of a Base-Free Chiral Phase-Transfer Reaction System

Shirakawa, S.; Wang, L.; He, R.; Maruoka, K. The 6th International Symposium on Intergrated Synthesis (ISIS-6), Maiko Villa Kobe, Kobe, Japan , 2010.10.23–24 (ポスター発表).

3. 特許

特になし

4. 学会・シンポジウム等の開催状況

- (1) Fifth Asian Symposium on Advanced Organic Synthesis, 京都大学, 2010.11.11 (白川誠司, Organizing Committee).

5. 受賞等

- (1) 白川誠司 (A01 班, 公募班員)

優秀講演賞 第 90 回日本化学会年会, 2010.4.14

6. 新聞報道等

- (1) Selected by the Editorial Board of **Synfacts** (*Synfacts* **2011**, 210.)

Catalytic Asymmetric Synthesis of 1,1-Disubstituted Tetrahydro- β -carbolines by Phase-Transfer Catalyzed Alkylation. Shirakawa, S.; Liu, K.; Ito, H.; Maruoka, K. *Chem. Commun.* **2011**, 47, 1515–1517.

7. 領域内の共同研究の準備・実施状況とその成果

特になし

8. その他特記事項

特になし