

研究期間全年度 研究業績

鳶巢 守 (大阪大学大学院工学研究科、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) Ni(0)/NHC-catalyzed amination of N-heteroaryl methyl ethers through the cleavage of carbon–oxygen bonds

Tobisu, M.*; Yasutome, A.; Yamakawa, K.; Shimasaki, T.; Chatani, N.*

Tetrahedron **2012**, *68*, 5157-5161 (invited).

- (2) Novel Synthetic Approach to Arylboronates via Rhodium-Catalyzed Carbon-Cyano Bond Cleavage of Nitriles.

Kinuta, H.; Kita, Y.; Rémond, E.; Tobisu, M.*; Chatani, N.*

Synthesis **2012**, 2999-3002 (invited).

- (3) Modular Synthesis of Phenanthridine Derivatives by Oxidative Cyclization of 2-Isocyanobiphenyls with Organoboron Reagents.

Tobisu, M.*; Koh, K.; Furukawa, T.; Chatani, N.*

Angew. Chem., Int. Ed. **2012**, *51*, 11363-11366.

- (4) 1,5-Migration of rhodium via C-H bond activation in catalytic decyanative silylation of nitriles.

Tobisu, M.*; Hasegawa, J.; Kita, Y.; Kinuta, H.; Chatani, N.*

Chem. Commun. **2012**, *48*, 11437-11439.

- (5) Ruthenium-Catalyzed Direct ortho-Alkynylation of Arenes with Chelation Assistance. Ano, Y.; Tobisu, M.*; Chatani, N.*

Synlett **2012**, *23*, 2763-2767 (invited)

- (6) Rhodium-Catalyzed Carbon–Silicon Bond Activation for Synthesis of Benzosilole Derivatives.

Onoe, M.; Baba, K.; Kim, Y.; Kita, Y.; Tobisu, M.*; Chatani, N.*

J. Am. Chem. Soc. **2012**, *134*, 19477-19488.

- (7) Synthesis of Six-membered Silacycles by Intramolecular Nucleophilic Substitution at Silicon Involving the Cleavage of Carbon–Silicon Bonds.

Onoe, M.; Morioka, T.; Tobisu, M.*; Chatani, N.*

Chem. Lett. **2013**, *42*, 238-240.

- (8) Catalytic Transformations Involving the Activation of sp² Carbon-Oxygen Bonds

Tobisu, M.*; Chatani, N.*

Topics in Organometallic Chemistry, **2013**, *44*, 35–53.

- (9) Visible Light-Mediated Direct Arylation of Arenes and Heteroarenes Using Diaryliodonium Salts in the Presence and Absence of a Photocatalyst
Tobisu, M.*; Furukawa, T.; Chatani, N.*
Chem. Lett. **2013**, *42*, 1203.
- (10) Palladium-Catalyzed Direct Synthesis of Phosphole Derivatives from Triarylphosphines via Cleavage of Carbon-Hydrogen and Carbon-Phosphorus Bonds
Baba, K.; Tobisu, M.*; Chatani, N.*
Angew. Chem. Int. Ed. **2013**, *52*, 11892 (front cover).
- (11) Remote Control by Steric Effects (perspective)
Tobisu, M.; Chatani, N.
Science, **2014**, *343*, 850.

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) 不活性な化学結合の触媒的変換反応
鳶巢守
東北大学理学研究科化学教室, 仙台, 2012.8.30 (招待講演)
- (2) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Aachen-Osaka Joint Symposium, Aachen, Germany, 2012.12.4 (口頭発表)
- (3) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Invited Lecture, Heidelberg University, Germany, 2012.12.7 (招待講演)
- (4) Nickel-catalyzed transformations of aryl methyl ethers
Tobisu, M.
245th ACS National Meeting, New Orleans, USA, 2013.4.7 (口頭発表)
- (5) 不活性シグマ結合の触媒的変換反応
鳶巢守
第25回万有札幌シンポジウム, 札幌, 2013.7.6 (招待講演)
- (6) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Ludwig-Maximilians-Universität, München, Germany, 2013.10.14 (招待講演)
- (7) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Max-Planck-Institute für Kohlenforschung, Mülheim, Germany, 2013.10.16 (招待講演)

- (8) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
ETH Zürich, Zürich, Switzerland, 2013.10.18 (招待講演)
- (8) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
ETH Zürich, Zürich, Switzerland, 2013.10.18 (招待講演)
- (9) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Merck Process Laboratory, Rahway, USA, 2013.10.22 (招待講演)
- (10) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
MIT, Cambridge, USA, 2013.10.24 (招待講演)
- (11) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Harvard University, Cambridge, USA, 2013.10.25 (招待講演)
- (12) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Caltech, Pasadena, USA, 2013.10.28 (招待講演)
- (13) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
UC Berkeley, Berkeley, USA, 2013.10.29 (招待講演)
- (14) Catalytic Transformations of Strong σ -Bonds
Tobisu, M.
Stanford University, Palo Alto, USA, 2013.10.30 (招待講演)
- (15) Palladium-Catalyzed Synthesis of Phospholes via the Cleavage of a Carbon-Phosphorus Bond
Tobisu, M.
Aachen-Osaka Joint Symposium, Osaka, 2014.3.10 (口頭発表)

3. 特許

4. 学会・シンポジウム等の開催状況

5. 受賞等

(1) 鷲巢守

平成 24 年度文部科学大臣表彰若手科学者賞、2012.4.9

(2) 鷲巢守

Marck-Banyu Lectureship Award 2012, 万有生命科学国際交流振興財団, 2013.7.6

6. 新聞報道等

7. 国民との科学・技術対話

8. 領域内の共同研究の準備・実施状況とその成果

(1) 共同研究先：京都大学，吉田研究室（A01 班，計画班員）

派遣人員（派遣）：尾上晶洋（博士3年）

派遣期間（派遣）：2012.8.13, 201.8.15, 2012.8.16, 2012.8.17, 2013.3.5-2013.3.8

共同研究内容：マイクロリアクターを用いたバッチでは合成困難なボロン酸原料の合成

共同研究成果：学会発表

Kim, S.; Onoe, M.; Tobisu, M.; Chatani, N.; Nagaki, A.; Yoshida, J. 日本化学会第93回春季年会(2013) 3D3-33