

平成22年度 研究業績

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1. 発表論文等 (査読付き論文, 著書, 総説等の発表状況)

- (1) Palladium(II) complexes bearing a salicylaldehyde ligand with hydroxyl group: synthesis, structure, deprotonation, and catalysis  
Murata, Y.; Ohgi, H.; Fujihara, T.; Terao, J.; Tsuji, Y.\* *Inorg. Chim. Acta* **2011**, 368, 237-241.
- (2) Palladium-Catalyzed Hydroesterification of Alkynes Employing Aryl Formates without the Use of External Carbon Monoxide  
Katafuchi, Y.; Fujihara, T.; Iwai, T.; Terao, J.; Tsuji, Y.\* *Adv. Synth. Catal.* **2011**, 353, 475-482.
- (3) Copper-Catalyzed Hydrocarboxylation of Alkynes Using Carbon Dioxide and Hydrosilanes  
Fujihara, T.; Xu, T.; Semba, K.; Terao, J.; Tsuji, Y.\* *Angew. Chem. Int. Ed.*, **2011**, 50, 523-527.
- (4) Transition-Metal-Catalyzed Additions of Carbonyl Functionalities to Alkynes (Accounts)  
Fujihara, T.; Iwai, T.; Terao, J.; Tsuji, Y.\* *Synlett* **2010**, 2537-2548.
- (5) Iridium-Catalyzed Annulation of *N*-Arylcarbamoyl Chlorides with Internal Alkynes  
Iwai, T.; Fujihara, T.; Terao, J.; Tsuji, Y.\* *J. Am. Chem. Soc.* **2010**, 132, 9602-9603.
- (6) Synthesis of Linked Symmetrical [3]Rotaxane Having an Oligomeric Phenylene Ethynylene Unit as a p-Guest via Double Sonogashira Cross-coupling  
Terao, J.\*; Wadahama, A.; Fujihara, T.; Tsuji, Y. *Chem. Lett.* **2010**, 39, 518-519.
- (7) Palladium-Catalyzed Intermolecular Addition of Formamides to Alkynes  
Fujihara, T.; Katafuchi, Y.; Iwai, T.; Terao, J.; Tsuji, Y.\* *J. Am. Chem. Soc.* **2010**, 132, 2094-2098.
- (8) Copper-Catalyzed Hydrosilylation with Bowl-Shaped Phosphane as a Ligand: Preferential Reduction of a Bulky Ketone in the Presence of an Aldehyde without Protection  
Fujihara, T.; Semba, K.; Terao, J.; Tsuji, Y.\* *Angew. Chem. Int. Ed.* **2010**, 49, 1472-1476.

## 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) Palladium-Catalyzed Intermolecular Addition of Formamides to Alkynes  
Fujihara, T.; Katafuchi, Y.; Iwai, T.; Terao, J.; Tsuji, Y. 24th International Conference on Organometallic Chemistry, Taipei, Taiwan, 2010.7.20（口頭発表）.
- (2) Annulation of Carbamoyl Chlorides with Internal Alkynes Catalyzed by an Iridium Complex  
Iwai, T.; Fujihara, T.; Terao, J.; Tsuji, Y. 24th International Conference on Organometallic Chemistry, Taipei, Taiwan, , 2010.7.22（ポスター発表）.
- (3) Copper-Catalyzed Hydrosilylation of Sterically Congested Ketones using Bowl-Shaped Phosphine as a Ligand  
Semba, K.; Fujihara, K.; Terao, J.; Tsuji, Y. 24th International Conference on Organometallic Chemistry, Taipei, Taiwan, , 2010.7.22（ポスター発表）.
- (4) Transition metal catalyzed addition of functionalities to alkynes  
Tsuji, Y. 1st International Collaborative and Cooperative Chemistry Symposium Frontiers in Molecular Design and Synthesis, National University of Singapore, Singapore, 2010.11.15（口頭発表）.
- (5) Transition-metal catalyzed addition of acid chlorides or formamides to alkynes  
Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Transition Metal Catalysis: Mechanism and Practice, Honolulu, Hawaii, USA, 2010.12.18（口頭発表）.
- (6) Copper-Catalyzed Reductive Carboxylation of an Alkyne Using a Hydrosilane Under Carbon Dioxide  
Fujihara, T.; Xu, T.; Semba, K.; Terao, J.; Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.18（ポスター発表）.
- (7) Iridium-catalyzed reaction of carbamoyl chlorides with internal alkynes to prepare 2-quinolones  
Iwai, T.; Fujihara, T.; Terao, J.; Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.18（ポスター発表）.
- (8) Hydrosilylation of Sterically Congested Ketones using a Copper Catalyst bearing a Bowl-Shaped Phosphine  
Semba, K.; Fujihara, T.; Terao, J.; Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.18（ポスター発表）.

- (9) *N*-Heterocyclic carbene ligands bearing ethylene glycol chains: effects of chain length in palladium-catalyzed Suzuki-Miyaura coupling reaction  
Yoshikawa, T.; Ohta, H.; Fujihara, T.; Terao, J.; Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.18 (ポスター発表).
- (10) Development of a bowl-shaped pyridine ligand and its applications in catalysis  
Horimoto, Y.; Xu, T.; Semba, K.; Fujihara, T.; Terao, J.; Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.18 (ポスター発表).
- (11) Syntheses of highly conductive insulated molecular wires having a poly(phenylene ethynylene) units  
Wadahama, A.; Terao, J.; Fujihara, T.; Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.16 (ポスター発表).
- (12) Development of a method to interconnect molecular wires between nanoelectrodes by sequential coupling reaction  
Homma, K.; Terao, J.; Fujihara, T.; Tsuji, Y. The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010), Honolulu, Hawaii, USA, 2010.12.16 (ポスター発表).

### 3. 特許

なし

### 4. 学会・シンポジウム等の開催状況

なし

### 5. 受賞等

- (1) 藤原哲晶 (助教)  
有機合成化学協会奨励賞, 2010.
- (2) 岩井智弘 (博士3年)  
第57回有機金属討論会ポスター賞, 2010.9.18

## 6. 新聞報道等

なし

## 7. 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：大阪府立大学，柳研究室（A01 班，計画班員）（準備中）

派遣人員（受入）：（隅野修平，修士1年）（予定）

派遣期間（受入）：2011.6.20-2011.6.30（予定）

## 8. その他特記事項

なし