

Curriculum Vitae

March 9, 2017

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Current Address

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Position

Research Assistant Professor, Laboratory of Organic Chemistry,
School of Pharmaceutical Sciences, University of Shizuoka

Education

3/2008 Ph. D., Graduate School of Science, Tokyo University of Science
3/2005 M. S., Graduate School of Science, Tokyo University of Science
3/2003 B. S., Faculty of Science, Tokyo University of Science

Research Positions

6/2012-present Research Assistant Professor, School of Pharmaceutical Sciences, University of Shizuoka
3/2011-5/2012 Project Assistant Professor, Graduate School of Science, University of Tokyo
9/2008-3/2011 Project Researcher, Graduate School of Science, University of Tokyo
4/2008-8/2008 Researcher, The HFRE division, ERATO, JST

Society Membership

The Chemical Society of Japan
The Pharmaceutical Society of Japan
The Society of Synthetic Organic Chemistry, Japan

Research Interests

Development of new catalytic reactions
Mechanistic studies of organic reactions using mass spectrometry

Fellowships and Grants

4/2015-3/2017 JSPS Grant-in-aid for Young Scientist (B)
4/2015-3/2016 Research Grant from the Uehara Memorial Foundation
4/2014-3/2016 Research Grant from Asahi Kasei Pharma
4/2012-3/2014 JSPS Grant-in-aid for Young Scientist (B)

4/2006-3/2008 Hayashi Fellow (Predoctoral) of Hayashi Memorial Foundation for Female Natural Scientists

Awards

2/2014 Asahi Kasei Pharma Award in Synthetic Organic Chemistry, Japan

Publications

- (1) Yamaguchi, M.; Akiyama, T.; Sasou, H.; Katsumata, H.; Manabe, K.
One-Pot Synthesis of Substituted Benzo[b]furans and Indoles from Dichlorophenols/Dichloroanilines Using a Palladium-Dihydroxyterphenylphosphine Catalyst.
J. Org. Chem., **2016**, *81*, 5450-5463.
- (2) Yamaguchi, M.; Higuchi, M.; Tazawa, K.; Manabe, K.
Three-Step Synthesis of Fluoranthenes through Pd-Catalyzed Inter and Intramolecular C-H Arylation.
J. Org. Chem., **2016**, *81*, 3967-3974.
- (3) Yamaguchi, M.; Manabe, K.
Ligand-Controlled Site-Selective Cross-Coupling.
Site-Selective Catalysis (Kawabata, T. Ed.): Springer International Publishing: Switzerland, **2016**, pp1-25
- (4) Yamaguchi, M.; Suzuki, K.; Manabe, K. Scalable Synthesis of Dihydroxyterphenylphosphine Ligands.
Tetrahedron, **2015**, *71*, 2743-2747.
- (5) Konishi, H.; Muto, T.; Ueda, T.; Yamada, Y.; Yamaguchi, M.; Manabe, K.
Imidazole Derivatives as Accelerators for Ruthenium-Catalyzed Hydroesterification and Hydrocarbonylation of Alkenes: Extensive Ligand Screening and Mechanistic Study.
ChemCatChem, **2015**, *7*, 836-845.
- (6) Manabe, K.; Yamaguchi, M.
Catalyst-Controlled Site-Selectivity Switching in Pd-Catalyzed Cross-Coupling of Dihaloarenes.
Catalysts, **2014**, *4*, 307-320.
- (7) Yamaguchi, M.; Manabe, K.
One-pot Synthesis of 2,4-Disubstituted Indoles from *N*-Tosyl-2,3-dichloroaniline Using Palladium-Dihydroxyterphenylphosphine Catalyst.
Org. Lett., **2014**, *16*, 2386-2389.
- (8) Yamaguchi, M.; Kimura, T.; Shinohara, N.; Manabe, K.
Repetitive Two-Step Method for *o,o,p*- and *o,p*-Oligophenylene Synthesis through Pd-Catalyzed Cross-Coupling of Hydroxyterphenylboronic Acid
Molecules **2013**, *18*, 15207-15219.
- (9) Yamaguchi, M.; Katsumata, H.; Manabe, K.

One-Pot Synthesis of Substituted Benzo[*b*]furans from Mono- and Dichlorophenols Using Palladium Catalysts Bearing Dihydroxyterphenylphosphine
J. Org. Chem. **2013**, *78*, 9270–9281.

- (10) Kobayashi, S.; Kiyohara, H.; Yamaguchi, M.
Catalytic Silicon Mediated Carbon-Carbon Bond-Forming Reactions of Unactivated Amides.
J. Am. Chem. Soc. **2011**, *133*, 708-711.
- (11) Yamaguchi, M.; Morita, N.; Schneider, U.; Kobayashi, S.
Catalytic Use of a Soluble Organoindium(III) Species for Allylation and Crotylation of Ketones with Boronates.
Adv. Synth. Catal. **2010**, *352*, 1461-1465.
- (12) Chakrabarti, A.; Konishi, H.; Yamaguchi, M.; Schneider, U.; Kobayashi, S.
Indium(I)-Catalyzed Asymmetric Allylation, Crotylation, and alpha-Chloroallylation of Hydrazones with Rare Constitutional and High Configurational Selectivities.
Angew. Chem. Int. Ed. **2010**, *49*, 1838-1841.
- (13) Kobayashi, S.; Yamaguchi, M.; Agostinho, M.; Schneider, U.
Catalytic Use of Strontium Hexamethyldisilazide in the Asymmetric Michael Addition of Malonate to Chalcone Derivatives.
Chem. Lett. **2009**, *38*, 296-297.
- (14) Yamaguchi, M.; Ueki, M.
Study on Interactions of Oligo(tyrosine sulfate)s with Synthetic Heparin-Binding Peptides by Affinity Chromatography and MALDI-TOF-MS.
Adv. Exp. Med. Biol. **2009**, *611*, 529-530.
- (15) Ueki, M.; Yamaguchi, M.
Analysis of Sulfo- and Phospho-Peptides as Tetrabutylammonium Salts by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry.
Res. Commun. Biochem. Cell Mol. Biol. **2008**, *12*, 37-49.
- (16) Yamaguchi, M.; Ohmori, T.; Sakata, Y.; Ueki, M.
Oligo(tyrosine sulfate)s as Heparin Pentasaccharide Mimic: Evaluation by Surface Noncovalent Affinity Mass Spectrometry.
Bioorg. Med. Chem. **2008**, *16*, 3342-3351.
- (17) Yamaguchi, M.; Kikuchi, F.; Ueki, M.
Direct Detection and Comparison of Non-Covalent Complex Formation of Oligo(tyrosine sulfate)s with Synthetic Heparin-Binding Peptides by MALDI-TOF-MS.
Peptide Science 2007, Proceedings of the 44th Japanese Peptide Symposium (S. Aimoto ed.), **2008**, pp213-216.
- (18) Ueki, M.; Yamaguchi, M.
A Study on Interactions of Oligo(tyrosine sulfate)s with a Heparin-Binding Peptide by MALDI-TOF-MS.

Peptide Science 2006, Proceedings of the 43rd Japanese Peptide Symposium/4th Peptide Engineering Meeting (H. Ishida and H. Mihara eds.), **2006**, pp188-189.

(19) Ueki, M.; Yamaguchi, M.

Enhanced Detection of Sulfo-peptides as Onium Salts in Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry.

Rapid Commun. Mass Spectrom. **2006**, *20*, 1615-1620.

(20) Ueki, M.; Yamaguchi, M.

Detection of Sulfated Peptides as Their Onium Salts in the Positive Mode by MALDI-TOF Mass Spectrometry.

Peptide Science 2005, Proceedings of the 42nd Japanese Peptide Symposium (T. Wakamiya ed.), **2006**, pp177-180.

(21) Ueki, M.; Yamaguchi, M.

Analysis of Acidic Carbohydrates as Their Quaternary Ammonium or Phosphonium Salts by Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry.

Carbohydr. Res. **2005**, *340*, 1722-1731.

(22) Ueki, M.; Yamaguchi, M.; Fujiwara, S.

Analysis of Sulfo- and Phospho-Peptides as Quaternary Ammonium Salts by MALDI-TOF MS.

Peptide Science 2004, Proceedings of the 1st Asian Pacific Ocean International Peptide Symposium/41st Japanese Peptide Symposium (Y. Shimohigashi ed.), **2005**, pp.187-190.

(23) Ueki, M.; Takekawa, A.; Yamaguchi, M.

Solid Phase Synthesis, Characterization, and Physical Properties of Oligo(tyrosine sulfate)s.

Peptide Science 2003, Proceedings of the 40th Japanese Peptide Symposium (M. Ueki ed.), **2004**, pp.151-154.