

CV OF SHIGENOBU UMEMIYA

Personal Information

- Name: Shigenobu Umemiya
- Date of Birth: June 16, 1987
- Place of Birth: Fukushima, Japan
- Gender: Male
- Nationality: Japan
- Address: 6-3 Aoba, Aramaki-Aza, Aoba-ku, Sendai, 980-8578, Japan
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- Languages: English and Japanese (spoken, written)

Education

- 2006-2010 **B.Sc** in Tokyo University of Science, Department of Industrial Chemistry
(Prof. Yujiro Hayashi)
- 2010-2012 **M.Sc** in Tokyo University of Science, Department of Industrial Chemistry
(Prof. Yujiro Hayashi)
- 2012-2015 **Ph.D.** in Graduate School of Science, Tohoku University (Prof. Yujiro
Hayashi)
- 2015-2017 **Postdoctoral Fellow** in The Scripps Research Institute, Department of
Chemistry (Prof. Phil S. Baran)
- 2017~ **Assistant Professor** in Graduate School of Science, Tohoku University (The
Hayashi Group)
- 2014-2016 Research Fellow of the Japan Society for the Promotion of Sciences (JSPS)**

Research Interest

Development of synthetic methodology, Total synthesis of natural products and medicines

Referee

Professor Yujiro Hayashi

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Publications

1. *Organocatalytic 1,4-Addition Reaction of $\alpha,\beta,\gamma,\delta$ -Diunsaturated Aldehyde versus 1,6-Addition Reaction*
Y. Hayashi, D. Okamura, **S. Umemiya**, and T. Uchimaru
ChemCatChem, **2012**, 4, 959.
<http://dx.doi.org/10.1002/cctc.201200161>
2. *Pot Economy in the Synthesis of Prostaglandin A_1 and E_1 Methyl Esters*
Y. Hayashi and **S. Umemiya**
Angew. Chem. Int. Ed, **2013**, 52, 3450.
<http://dx.doi.org/10.1002/anie.201209380>
3. *Diphenylprolinol Silyl Ether Catalyzed Asymmetric Michael Reaction of Nitroalkanes and β,β -Disubstituted α,β -Unsaturated Aldehydes for the Construction of All-Carbon Quaternary Stereogenic Centers*
Y. Hayashi, Y. Kawamoto, M. Honda, D. Okamura, **S. Umemiya**, Y. Noguchi, T. Mukaiyama, and I. Sato
Chem. Eur. J. **2014**, 20, 12072.
<http://dx.doi.org/10.1002/chem.201403588>
4. *Nef Reaction with Molecular Oxygen in the Absence of Metal Additives, and Mechanistic Insights (Hot paper)*
S. Umemiya, K. Nishino, I. Sato, and Y. Hayashi
Chem. Eur. J. **2014**, 20, 15753.
<http://dx.doi.org/10.1002/chem.201403475>
5. *Asymmetric Formal [3+2] Cycloaddition Reaction of Succinaldehyde and*

- Nitro-alkene Catalyzed by Diphenylprolinol Silyl Ether*
S. Umemiya and Y. Hayashi
Eur. J. Org. Chem. **2015**, 4320.
<http://onlinelibrary.wiley.com/doi/10.1002/ejoc.201500623/epdf>
6. *Asymmetric Aldol Reaction of Chloral Catalyzed by Diarylprolinol*
Y. Hayashi, S. Watanabe, Y. Yasui, and **S. Umemiya**
ChemCatChem, **2015**, 7, 1646.
<http://onlinelibrary.wiley.com/doi/10.1002/cctc.201500282/epdf>
7. *Oxidative Amidation of Nitroalkanes with Amine Nucleophiles using Molecular Oxygen and Iodine*
J. Li, M. J. Lear, Y. Kawamoto, **S. Umemiya**, A. R. Wong, E. Kwon, I. Sato, and Y. Hayashi
Angew. Chem. Int. Ed. **2015**, 54, 12986.
<http://onlinelibrary.wiley.com/doi/10.1002/anie.201505192/epdf>
8. *Total Synthesis of Verruculogen and Fumitremorgin A Enabled by Ligand Controlled C–H Borylation*
Y. Feng, D. Holte, J. Zoller, **S. Umemiya**, L. R. Simke, and P. S. Baran
J. Am. Chem. Soc. **2015**, 137, 10160.
<http://pubs.acs.org/doi/pdf/10.1021/jacs.5b07154>
9. *11-Step Total Synthesis of Pallambins C and D*
L. P. Martinez,[§] **S. Umemiya**,[§] S. E. Wengryniuk, and P. S. Baran
[§]These authors contributed equally to this paper.
J. Am. Chem. Soc. **2016**, 138, 7536.
<http://pubs.acs.org/doi/pdf/10.1021/jacs.6b04816>
Most Read Articles in 6/1/2016~7/1/2016 : Ranked as 1st.
Most Read Articles in 4/1/2016~4/1/2017 : Ranked as 3rd.
10. *Enantioselective Total Synthesis of Beraprost Using Organocatalyst*
S. Umemiya,[§] D. Sakamoto,[§] G. Kawauchi, and Y. Hayashi
[§]These authors contributed equally to this paper.
Org. Lett. **2017**, 19, 1112.
<http://pubs.acs.org/doi/abs/10.1021/acs.orglett.7b00134>

Award

2013 Student Presentation Award, Japan (93th Annual Meeting of the Chemical Society of Japan): Total Synthesis of Prostaglandin E₁ Methyl Ester by Three Pot Sequences

2014 Poster Presentation Award, Japan (106th Symposium on Organic Synthesis, Japan): Metal Free Nef Reaction with Molecular Oxygen and Mechanistic Insights

2015 Student Presentation Award, Japan (95th Annual Meeting of the Chemical Society of Japan): Metal Free Nef Reaction with Molecular Oxygen and Mechanistic Insights

2015 Department of Chemistry Award, Japan (Tohoku University)

2015 Reaxys PhD Prize Finalist (Reaxys): Pot Economy in the Synthesis of Prostaglandin A₁ and E₁ Methyl Esters