Curriculum Vitae (As of May 6, 2022)

Youhei Takeda, Ph.D. (PhD in 2010, Kyoto University)

Associate Professor, Department of Applied Chemistry, Graduate School of Engineering, Osaka University, Japan

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Google Scholar: https://scholar.google.co.jp/citations?user=kjGjIe4AAAAJ&hl=ja

Research Interests & Achievements

- Design, synthesis, and optoelectronic applications of multi-photofunctional organic materials (e.g., thermally activated delayed fluorescence, mechanochromic luminescence, and room-temperature phosphorescence) based on twisted donor-acceptor-donor (D-A-D) π-conjugated scaffolds.
- Development of synthetic organic methods for exotic heteroatom-embedded functional π-electron conjugated systems, by making use of unique reactivities of main-group-element compounds and chemical species.
- ***Summary of achievements***: 65 original papers, 6 accounts/reviews, 2 patent, 6 book chapters, 20 contribution articles, and 68 invited lectures at the international/domestic seminars, conferences, and symposiums (*total citation number*: 2847, *h index*: 25, *i10 index*: 45, Google Scholar Citation as of May 6, 2022)
- ***Selected 5 papers within the last 5 years***: 1) *ACS Appl. Mater. Interfaces* **2021**, *13*, 2899; 2) *J. Am. Chem. Soc.* **2020**, 142, 1482; 3) *Chem. Commun.* **2018**, *54*, 6847; 4) *Chem. Sci.* **2017**, *8*, 2677; 5) *Angew. Chem. Int. Ed.* **2016**, *55*, 5739.

Education

2010 **Ph.D., Material Chemistry, Kyoto University** Kyoto, Japan
(Research Advisors: Professors Masaki Shimizu and Tamejiro Hiyama)

2007 **M. Eng., Material Chemistry, Kyoto University** Kyoto, Japan
(Research Advisors: Professors Masaki Shimizu and Tamejiro Hiyama)

2005 **B. Eng., Applied Chemistry, Waseda University** Tokyo, Japan

Professional Experiences

2021–2022: **Adjunct Lecturer** (concurrent position), Kyushu University, Japan

2019–2021: **Program Officer** (concurrent position) for Grants-in-Aid for Scientific Research (KAKENHI), MEXT, Japan

2019–2020: **Adjunct Lecturer** (concurrent position), Tokyo Institute of Technology, Japan

2015–present: **Adjunct Lecturer** (concurrent position), Vietnam Japan University (VJU), Vietnam

2015–present: **Associate Professor** (tenured position), Department of Applied Chemistry, Osaka University, Japan

2011–2015: **Assistant Professor** (tenure-track position), Frontier Research Base for Global Young Researchers, Osaka University, Japan

2010–2011: **Postdoctoral Fellow** (JSPS PD), Massachusetts Institute of Technology, USA (Research Advisor: Professor Timothy M. Swager)

2009–2010: **Research Fellow** (JSPS DC2), Kyoto University, Japan

Awards & Honors

1. *Chemical Communications* Pioneering Investigator 2022 (2022)

2. Materials and Device Joint Research Award (2021)

3. Thieme Chemistry Journals Award (2021)

4. The Osaka University Prize (2020)

5. The New Chemical Technology Research Encouragement Award (2020)

6. The Nozoe Memorial Award for Young Organic Chemists (2020)

7. The Young Scientists' Prize, The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology, Japan (2020)

8. Young Scholar Lecturers of CSJ at the 100th Annual Meeting of The Chemical Society of Japan (2020)

9. Global Peer Review Awards 2019 (top 1% in *Chemistry*, top 1% in *Cross-Fields*) (2019)

10. Incentive Award in Synthetic Organic Chemistry, Japan (2018)

11. Peer Review Awards 2018 (top 1% in *Chemistry*) (2018)

12. *Chemical Communications* Emerging Investigator 2018 (2018)

13. Outstanding Reviewer for *Materials Chemistry Frontiers* in 2017 (2018)

14. Early Excellence Profile in *Journal of Physical Organic Chemistry* (2015)

15. Osaka University Presidential Awards for Encouragement (2015)

16. Toray Award in Synthetic Organic Chemistry, Japan (2015)

17. Best Poster Award of the 19th Winter Fluorine Conference (2010)

Advisory Boards & Committee Members

Advisory boards: International Advisory Board (IAB), Asian Journal of Organic Chemistry (Wiley-VCH) (2022–present); Early Career Advisory Board (ECAB), Asian Journal of Organic Chemistry (Wiley-VCH) (2020–2021); The Scientific Advisory Board (SAB), EXCILIGHT Project (funded by the European Commission under the Horizon 2020 Marie Curie actions) (2016–2019)

Committee members: Committee Member of The 181st Committee on Multifunctional Molecular Electronics (JSPS University-Industry Cooperative Research Committees) (2019–present); Expert Investigator of National Institute of Science and Technology Policy (NISTEP) (2020–2021)

Professional Services

Meeting Chair: Faraday Discussions –Challenges and Prospects in Organic Photonics and Electronics– (the proposal has been accepted; to be held in 2023, Japan)

Meeting Organizer: π-System Figuration European-Japanese Workshop 2018 (π-EJ 2018), November, 2018 (Dubrovnik, Croatia); π-System Figuration European-Japanese Workshop 2019 (π-EJ 2019), November, 2019 (Zabrze, Poland);

Organizing Committee Member: 26th International Conference on Organometallic Chemistry (ICOMC 2014), 2014 (Sapporo, Japan)

Program Committee Member: The 96th Chemical Society of Japan (CSJ) Annual Meeting, 2015 (Kyotanabe, Japan); The 99th Chemical Society of Japan (CSJ) Annual Meeting, 2019 (Kobe, Japan); The 102nd Chemical Society of Japan (CSJ) Annual Meeting, 2022 (Online, Japan)

External PhD Examiner: He Wei, Nanyang Technological University (2016); Farzad Zamani, University of Wollongong (2019)

List of Publications (As of May 6, 2022)

Original Peer-Reviewed Papers (* = corresponding author(s))

1. Shudo, H.; Kuwayama, M.; Shimasaki, M.; Nishihara, T.; **Takeda, Y.**; Kuwabara, T.; Yagi, A.; *Segawa, Y.; *Itami, K. "Perfluorocycloparaphenylenes: Fully Fluorinated Carbon Nanorings by Ni-Mediated One-Pot Synthesis" *Preprint version: ChemRxiv* (doi: 10.33774/chemrxiv-2021-7kd63)
2. Izumi, S.; Govindharaj, P.; Drewniak, A.; Crocomo, P. Z.; Minakata, S.; de Sousa, L. E.; *de Silva, P.; *Data, P.; ***Takeda, Y.*** "Comparative Study of Thermally Activated Delayed Fluorescent Properties of Donor–Acceptor and Donor–Acceptor–Donor Architectures Based on Phenoxazine and Dibenzo[*a,j*]phenazine" *Beilstein Journal of Organic Chemistry* **2022**, *18*, 459–468. *※ Invited as a part of a themed collection "Organic TADF materials design".*
3. Nyga, A.; Kaihara, T.; Hosono, T.; Sipala, M.; Stachelek, P.; Tohnai, N.; Minakata, S.; de Sousa, L. E.; *de Silva, P.; *Data, P.; ***Takeda, Y.*** "Dual-Photofunctional Organogermanium Compound Based on Donor–Acceptor–Donor Architecture" *Chem. Commun.* **2022**, *Advanced Manuscript*. (doi: 10.1039/D2CC01568D) *※ Invited as a part of a themed collection "2022 Pioneering Investigators".*
4. Hosono, T.; Decarli, N. O.; Crocomo, P. Z.; Goya, T.; de Sousa, L. E.; Tohani, N.; Minakata, S.; *de Silva, P.; *Data, P.; ***Takeda, Y.*** "The Regioisomeric Effect on the Excited-State Fate Leading to Room-Temperature Phosphorescence or Thermally Activated Delayed Fluorescence in a Dibenzophenazine-Cored Donor–Acceptor–Donor System" *Journal of Materials Chemistry C* **2022**, *10* (12), 4905–4913.
5. Goya, T.; Crocomo, P. Z.; Hosono, T.; Minakata, S.; de Sousa, L. E.; *de Silva, P.; *Data, P.; ***Takeda, Y.*** "A New Entry to Purely Organic Thermally Activated Delayed Fluorescence Emitters Based on Pyrido[2,3-*b*]pyrazine–Dihydrophenazasilines Donor–Acceptor Dyad" *Asian Journal of Organic Chemistry* **2022**, *11* (3), e202100780. *※ Invited as a part of a special collection "10th Anniversary Collection".*
6. Tsuboi, M.; Nakamura, S.; Nandi, S.; *de Silva, P.; ***Takeda, Y.***; *Miura, M. "Syntheses and Room Temperature Phosphorescence Properties of Dibenzobenzodithiophenes and Dibenzothiophenes" *Bulletin of the Chemical Society of Japan* **2021**, *94* (10), 2498–2504.
7. Crocomo, P. Z.; Kaihara, T.; Kawaguchi, S.; Stachelek, P.; Minakata, S.; *de Silva, P.; *Data, P.; ***Takeda, Y.*** "The Impact of C_2 Insertion into a Carbazole Donor on the Physicochemical Properties of Dibenzo[*a,j*]phenazine-Cored Donor–Acceptor–Donor Triads" *Chemistry—A European Journal* **2021**, *27* (53), 13390–13398. *※ Selected as a Hot Paper.*
8. Goto, S.; Nitta, Y.; Decarli, N. O.; de Sousa, L. E.; Stachelek, P.; Tohani, N.; Minakata, S.; *de Silva, P.; *Data, P.; ***Takeda, Y.*** "Revealing Internal Heavy Chalcogen Atom Effect on the Photophysics of Dibenzo[*a,j*]phenazine-Cored Donor–Acceptor–Donor Triad" *Journal of Materials Chemistry C* **2021**, *9* (39), 13942–13953.

9. *Kawai, S.; Kher-Elden, M. A.; Sadeghi, A.; El-Fattah, Z. M. A.; Sun, K.; Izumi, S.; Minakata, S.; ***Takeda, Y.**; *Lobo-Checa, J. "Near-Fermi Superatom State Stabilized by Surface State Resonances in a Multiporous Molecular Network" *Nano Letters* **2021**, *21* (15), 6456–6462. ※ *Featured as the Inside Cover of the Issue.*
10. ***Takeda, Y.**; Toyoda, K.; *Sameera, W. M. C.; Tohnai, N.; *Minakata, S. "Palladium-Catalyzed Regioselective and Stereospecific Ring-Opening Suzuki–Miyaura Arylative Cross-Coupling of 2-Arylazetidines with Arylboronic Acids" *Advanced Synthesis & Catalysis* **2021**, *363* (11), 2796.
11. Thom, K. A.; Förster, T.; *Weingart, O.; Goto, S.; ***Takeda, Y.**; Minakata, S.; *Gilch, P. "The Photophysics of Dibenzo[*a,j*]phenazine" *ChemPhotoChem* **2021**, *5* (4), 335–347. ※ *Featured as the Front Cover of the Issue.*
12. Higginbotham, H. F.; Okazaki, M.; *de Silva, P.; Minakata, S.; ***Takeda, Y.**; *Data, P. "Heavy-Atom-Free Room-Temperature Phosphorescent Organic Light-Emitting Diodes Enabled by Excited States Engineering" *ACS Applied Materials & Interfaces* **2021**, *13* (2), 2899–2907.
13. Ikari, Y.; Kaihara, T.; Goto, S.; Bovenkerk, M.; Grenz, D. C.; *Esser, B.; Ferreira, M.; Stachelek, P.; *Data, P.; Yoshida, T.; Ikai, T.; Tohnai, N.; Minakata, S.; ***Takeda, Y.** "Peripherally Donor-Installed 7,8-Diaza[5]helicenes as A Platform for Helical Luminophores" *Synthesis* **2021**, *53* (9), 1584–1596. ※ *Invited as a Feature Article. Featured as the Front Cover of the Issue.*
14. Izumi, S.; Nyga, A.; *de Silva, P.; Tohnai, N.; *Minakata, S.; *Data, P.; ***Takeda, Y.** "Revealing Topological Influence of Phenylenediamine Unit on Physicochemical Properties of Donor–Acceptor–Donor–Acceptor Thermally Activated Delayed Fluorescent Macrocycles" *Chemistry—An Asian Journal* **2020**, *15* (23), 4098–4103. ※ *Selected as a Very Important Paper (VIP).*
15. Nyga, A.; Izumi, S.; Higginbotham, H. F.; Stachelek, P.; Pluczyk, S.; *de Silva, P.; *Minakata, S.; ***Takeda, Y.**; *Data, P. "Electrochemical and Spectroelectrochemical Comparative Study of Macrocyclic Thermally Activated Delayed Fluorescent Compounds: Molecular Charge Stability vs OLED EQE Roll-Off" *Asian Journal of Organic Chemistry* **2020**, *9* (12), 2153–2161.
16. Yamagishi, H.; Nakajima, S.; Yoo, J.; Okazaki, M.; ***Takeda, Y.**; Minakata, S.; *Albrecht, K.; Yamamoto, K.; Badía-Domínguez, I.; Oliva, M. M.; Delgado, M. C. R.; Sato, H.; Imoto, K.; Nakagawa, K.; Tokoro, H.; Ohkoshi, S.-i.; *Yamamoto, Y. "Sigmoidally Hydrochromic Molecular Porous Crystal with Rotatable Dendrons" *Communications Chemistry* **2020**, *3*, 118/1–8. ※ *Press Release (Auguts 19, 2020). Highlighted in ResOU, Optronics Online, EurekAlert!, ScienceDaily, PhysOrg, and etc.*
17. *Iwasaki, T.; Murakami, S.; **Takeda, Y.**; Tohnai, N.; *Kambe, N. "Effect of Alkyl Groups in Pyrene Chromophore on Mechanical Response of Pyrene-Octafluoronaphthalene Co-Crystals" *Chemistry—An Asian Journal* **2020**, *15* (8), 1349–1354.
18. Izumi, S.; Higginbotham, H. F.; Nyga, A.; Stachelek, P.; Tohnai, N.; de Silva, P.; *Data, P.; ***Takeda, Y.**; *Minakata, S. "Thermally Activated Delayed Fluorescent Donor–Acceptor–Donor–Acceptor π-Conjugated Macrocycle for Organic Light-Emitting Diodes" *Journal of the American Chemical Society* **2020**, *142* (3), 1482–1491. ※ *Press Release (January 8, 2020). Highlighted in ResOU、Optronics, EurekAlert!, AlphaGalileo, Phys Org, Nanowerk, EE Times Japan, Science Daily, Bioengineer.org, BITS&CHIPS, BrightSurt.com, SciFi Insight, and etc.*

19. *Iwasaki, T.; Murakami, S.; **Takeda, Y.**; Fukuhara, G.; Tohnai, N.; Yakiyama, Y.; Sakurai, H.; *Kambe, N. "Molecular Packing and Solid-State Photophysical Properties of 1,3,6,8-Tetraalkylpyrenes" *Chemistry—A European Journal* **2019**, *25* (65), 14817–14825. ※ *Featured as the Cover Feature of the Issue.*
20. ***Takeda, Y.**; Mizuno, H.; Okada, Y.; Okazaki, M.; Minakata, S.; *Penfold, T.; *Fukuhara, G. "Hydrostatic Pressure-Controlled Ratiometric Luminescence Responses of a Dibenzo[*a,j*]phenazine-Cored Mechanoluminophore" *ChemPhotoChem* **2019**, *3* (12), 1203–1211. ※ *Featured as the Front Cover of the Issue.*
21. ***Takeda, Y.**; Shibuta, K.; Aoki, S.; Tohnai, N.; *Minakata, S. "Catalyst-Controlled Regiodivergent Ring-Opening C(sp^3)–Si Bond-Forming Reactions of 2-Arylaziridines with Silylborane Enabled by Synergistic Palladium/Copper Dual Catalysis" *Chemical Science* **2019**, *10* (37), 8642–8647.
22. ***Takeda, Y.**; Matsuno, T.; Sharma, A. K.; *Sameera, W. M. C.; *Minakata, S. "Asymmetric Synthesis of β^2-Aryl Amino Acids through Pd-Catalyzed Enantiospecific and Regioselective Ring-Opening Suzuki-Miyaura Arylation of Aziridine-2-carboxylates" *Chemistry—A European Journal* **2019**, *25* (43), 10226–10231. ※ *Highlighted in Synfacts.*
23. *Data, P.; Okazaki, M.; Minakata, S.; ***Takeda, Y.** "Thermally Activated Delayed Fluorescence *vs.* Room Temperature Phosphorescence by Conformation Control of Organic Single Molecules" *Journal of Materials Chemistry C* **2019**, *7* (22), 6616–6621. ※ *Selected as the part of the themed collection "2019 Journal of Materials Chemistry C Most Popular Articles".*
24. Sharma, A. K.; *Sameera, W. M. C.; **Takeda, Y.**; Minakata, S. "Computational Study on the Mechanism and Origin of the Regioselectivity and Stereospecificity in Pd/SIPr-Catalyzed Ring-Opening Cross-Coupling of 2-Arylaziridines with Arylboronic Acids" *ACS Catalysis* **2019**, *9* (5), 4582–4592.
25. Omori, H.; Hiroto, S.; **Takeda, Y.**; Fliegl, H.; Minakata, S.; *Shinokubo, H. "Ni(II) 10-Phosphacorrole: A Porphyrin Analogue Containing Phosphorus at the *Meso* Position" *Journal of the American Chemical Society* **2019**, *141* (12), 4800–4805.
26. *Pluczyk, S.; *Higginbotham, H.; Data, P.; ***Takeda, Y.**; Minakata, S. "The Impact of Replacement of Nitrogen with Phosphorus Atom in the Pyromellitic Diimides on Their Photophysical and Electrochemical Properties" *Electrochimica Acta* **2019**, *295*, 801–809.
27. Itai, Y.; Nishii, Y.; Stachelek, P.; *Data, P.; ***Takeda, Y.**; Minakata, S.; *Miura, M. "Syntheses of Diverse Donor-Substituted Bisbenzofuro[2,3-*b*:3',2'-e]pyridines (BBZFPys) via Pd Catalysis, and Their Photophysical Properties" *The Journal of Organic Chemistry* **2018**, *83* (17), 10289–10302.
28. ***Takeda, Y.**; Kaihara, T.; Okazaki, M.; Higginbotham, H.; *Data, P.; Tohnai, N.; Minakata, S. "Conformationally-Flexible and Moderately Electron-Donating Units-Installed D–A–D Triad Enabling Multicolor-Changing Mechanochromic Luminescence, TADF and Room-Temperature Phosphorescence" *Chemical Communications* **2018**, *54* (50), 6847–6850. ※ *Selected as ChemCommun 2018 Emerging Investigators.*
29. Oki, O.; Kushida, S.; Mikosch, A.; Hatanaka, K.; **Takeda, Y.**; Minakata, S.; Kuwabara, J.; Kanbara, T. Dao, T. D.; Ishii, S.; Nagao, T.; Kuehne, A.; Deschler, F.; Friend, R.; *Yamamoto, Y. "FRET-Mediated Near Infrared Whispering Galley Modes: Studies on the Relevance of Intracavity Energy Transfer with Q-Factor" *Materials Chemistry Frontiers* **2018**, *2* (2), 270–274.
30. *de Sa Pereira, D.; dos Santos, P. L.; Ward, J.; Data, P.; Okazaki, M.; **Takeda, Y.**; Minakata, S.; Bryce, M.; Monkman, A. P. "An Optical and Electrical Study of Full Thermally Activated Delayed Fluorescent White Organic Light-emitting Diodes" *Scientific Reports* **2017**, *7*, 6234/1–8.
31. Okazaki, M.; ***Takeda, Y.**; *Data, P.; Pander, P.; Higginbotham, H.; Monkman, A. P.; *Minakata, S."Thermally Activated Delayed Fluorescent Phenothiazine-Dibenzo[*a,j*]phenazine-Phenothiazine Triads Exhibiting Tricolor-changing

Mechanochromic Luminescence" *Chemical Science* **2017**, *8* (4), 2677–2686. ※ *Press Release (January 13, 2017). Highlighted in ResOU, Chem-Station, AlphaGalileo, EurekAlert!, ScienceDaily, Phys Org, Optronics, UPI, Asian Scientist, American Laboratory, and etc. Selected as "Most downloaded articles of 2017: Inorganic and Physical Chemistry" and "The top 5% authors, highly cited in the Royal Society of Chemistry journals in 2019".*

32. *__Takeda, Y.__; Ueta, S.; *Minakata, S. "Oxidative Self-annulation of 2,5-Diaryl-3,4-diaminothiophene via C–C and C–S Bond Cleavage of the Thiophene Ring: A New Synthesis of An Amino-substituted Triarylthieno[3,4-*b*]pyrazines and Their Photophysical Properties" *Heterocycles* **2017**, *95* (1), 137–144.
33. *__Takeda, Y.__; Kuroda, A.; Sameera, W. M. C.; *Morokuma, K.; *Minakata, S. "Palladium-Catalyzed Regioselective and Stereo-Invertive Ring-Opening Borylation of 2-Arylaziridines with Bis(pinacolato)diboron: Experimental and Computational Studies" *Chemical Science* **2016**, *7* (9), 6141–6152. ※ *Highlighted in J. Synth. Org., Jpn.*
34. *__Takeda, Y.__; Hatanaka, K.; Nishida, T.; *Minakata, S."Thieno[3,4-*c*]phosphole-4,6-dione: A Versatile Building Block for Phosphorus-containing Functional π-Conjugated Systems" *Chemistry—A European Journal* **2016**, *22* (30), 10360–10364. ※ *Highlighted in Atlas of Science.*
35. *Data, P.; Pander, P.: Okazaki, M.; *__Takeda, Y.__; Minakata, S.; Monkman, A. P. "Dibenzo[*a,j*]phenazine-Cored Donor-Acceptor-Donor (D-A-D) Compounds as Green-to-Red/NIR Thermally Activated Delayed Fluorescence Organic Light Emitters" *Angewandte Chemie International Edition* **2016**, *55* (19), 5739–5744. ※ *Press Release (April 7, 2016). Highlighted in ResOU, AlphaGalileo, EurekAlert!, ScienceDaily, Materials Today, Phys Org, Optronics, and etc.*
36. Okazaki, M.; Takahashi, K.; *__Takeda, Y.__; *Minakata, S. "Ring-Contractive and -Closing Skeletal Rearrangement of 1,1'-Binaphthalene-2,2'-diamines (BINAMs) Induced by an Iodine-Containing Oxidant: Synthesis of Spiro[benzo[*e*]indole-1,1'-inden]-2-amines and Application to an AIEE-Active BF_2 Complex" *Heterocycles* **2016**, *93* (2), 770–782.
37. *__Takeda, Y.__; Okazaki, M.; Maruoka, Y.; *Minakata, S. "A Facile Synthesis of Functionalized 7,8-Diaza[5]helicenes through an Oxidative Ring-Closure of 1,1'-Binaphthalene-2,2'-diamines (BINAMs)" *Beilstein Journal of Organic Chemistry* **2015**, *11*, 9–15.
38. *__Takeda, Y.__; Hisakuni, D.; Lin, C.-H.; *Minakata, S. "2-Halogenoimidazolium Salt Catalyzed Aza-Diels–Alder Reaction through Halogen-Bond Formation" *Organic Letters* **2015**, *17* (2), 318–321.
39. *__Takeda, Y.__; Nishida, T.; Hatanaka, K.; *Minakata, S. "Revisiting Phosphorus Analogues of Phthalimides and Naphthalimides: Syntheses and Comparative Studies" *Chemistry—A European Journal* **2015**, *21* (4), 1666–1672.
40. *__Takeda, Y.__; Okazaki, M.; *Minakata, S. "Oxidative Skeletal Rearrangement of 1,1'-Binaphthalene-2,2'-diamines (BINAMs) via C–C Bond Cleavage and Nitrogen Migration: A Versatile Synthesis of U-Shaped Azaacenes" *Chemical Communications* **2014**, *50* (71), 10291–10294. ※ *Highlighted in Synfacts.*
41. *__Takeda, Y.__; Nishida, T.; *Minakata, S. "2,6-Diphospha-*s*-indacene-1,3,5,7(*2H,6H*)-tetraone: A Phosphorus Analogue of Aromatic Diimides with the Minimal Core Exhibiting High Electron-Accepting Ability" *Chemistry—A European Journal* **2014**, *20* (33), 10266–10270.
42. *__Takeda, Y.__; Ikeda, Y.; Kuroda, A.; Tanaka, S.; *Minakata, S. "Pd/NHC-Catalyzed Enantiospecific and Regioselective Suzuki-Miyaura Arylation of 2-Arylaziridines: Synthesis of Enantioenriched 2-Arylphenethylamine Derivatives" *Journal of the American Chemical Society* **2014**, *136* (24), 8544–8547. ※ *Highlighted in Org. Process Res. Dev.*

43. Okumura, S.; Lin, C.-H.; *__**Takeda, Y.**__; *Minakata, S. "Oxidative Dimerization of (Hetero)aromatic Amines Utilizing *t*-BuOI Leading to (Hetero)aromatic Azo Compounds: Scope and Mechanistic Studies" *The Journal of Organic Chemistry* **2013**, *78* (23), 12090–12105.
44. __**Takeda, Y.**__; Kawai, H.; *Minakata, S. "PCy_3-Catalyzed Ring-Expansion of Aziridinofullerenes with CO_2 and Aryl Isocyanates: Evidence for a Two-Consecutive Nucleophilic Substitution Pathway on the Fullerene Cage" *Chemistry—A European Journal* **2013**, *19* (23), 13479–13483.
45. Okumura, S.; *__**Takeda, Y.**__; Kiyokawa, K.; *Minakata, S. "Hypervalent Iodine(III)-Induced Oxidative [4+2] Annulation of *o*-Phenylenediamines and Electron-Deficient Alkynes: Direct Synthesis of Quinoxalines from Alkyne Substrates under Metal-Free Conditions" *Chemical Communications* **2013**, *49* (81), 9266–9268. ※ *Highlighted in Synfacts.*
46. __**Takeda, Y.**__; Okumura, S.; *Minakata, S. "A Practical Synthesis of Azobenzenes through Oxidative Dimerization of Aromatic Amines Using *tert*-Butyl Hypoiodite" *Synthesis* **2013**, *45* (8), 1029–1033.
47. __**Takeda, Y.**__; Enokijima, S.; Nagamachi, T.; Nakayama, K.; *Minakata, S. "Straightforward and Versatile Synthesis of Fullerooxazoles from C_{60} and Carboxamides through Radicalic Reaction under Mild Conditions" *Asian Journal of Organic Chemistry* **2013**, *2* (1), 91–97. ※ *Featured as the Cover Picture of the Issue. Highlighted in ChemistryViews.*
48. __**Takeda, Y.**__; Nagamachi, T.; Nishikori, K.; *Minakata, S. "An Inclusion Complex of C_{60} with Organosilylated γ-Cyclodextrin: Drastic Enhancement of Apparent Solubility of C_{60} in Nonpolar and Weakly Polar Organic Solvents" *Asian Journal of Organic Chemistry* **2013**, *2* (1), 69–73. ※ *Highlighted in ChemistryViews.*
49. __**Takeda, Y.**__; Hayakawa, J.; Yano, K.; *Minakata, S. "Transition-Metal-Free Benzylic C–H Bond Intermolecular Amination Utilizing Chloramine-T and I_2" *Chemistry Letters* **2012**, *41* (12), 1672–1674.
50. __**Takeda, Y.**__; Murakami, Y.; Ikeda, Y.; *Minakata, S. "Nucleophilic Ring-Opening of *N*-*o*-Nosylaziridines with *N*-Chloro-*N*-sodiocarbamate: Facile Preparation of Differentially Protected Vicinal Diamines" *Asian Journal of Organic Chemistry* **2012**, *1* (3), 226–230.
51. __**Takeda, Y.**__; Okumura, S.; Tone, S.; Sasaki, I.; *Minakata, S. "Cyclizative Atmospheric CO_2 Fixation by Unsaturated Amines with *t*-BuOI Leading to Cyclic Carbamates" *Organic Letters* **2012**, *14* (18), 4874–4877. ※ *Highlighted in Noteworthy Chemistry.*
52. Nagamachi, T.; __**Takeda, Y.**__; Nakayama, K.; *Minakata, S. "Selective Functionalization of Fullerenes with *N*,*N*-Dihalosulfonamides as an N_1 Unit: Versatile Syntheses of Aza[60]fulleroids and Aziridino[60]fullerenes and Their Application to Photovoltaic Cells" *Chemistry—A European Journal* **2012**, *18* (38), 12035–12045.
53. __**Takeda, Y.**__; Andrew, T. L.; Lobez, J. M.; Mork, A. J.; *Swager, T. M. "An Air-Stable Low-Bandgap n-Type Organic Polymer Semiconductor Exhibiting Selective Solubility in Perfluorinated Solvents" *Angewandte Chemie International Edition* **2012**, *51* (36), 9042–9046.
54. __**Takeda, Y.**__; Okumura, S.; *Minakata, S. "Oxidative Dimerization of Aromatic Amines Using *t*-BuOI: Entry to Unsymmetric Aromatic Azo Compounds" *Angewandte Chemie International Edition* **2012**, *51* (31), 7804–7808. ※ *Selected as a Hot Paper. Highlighed in Noteworthy Chemistry, Synfacts, and etc.*
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