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Researcher, ERATO Isobe Degenerate π-Integration Project

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Education

2009 B. S. in Chemistry (The University of Tokyo)

2011 M. S. in Applied Chemistry (The University of Tokyo)

2014 Ph. D. in Applied Chemistry (The University of Tokyo)

Academic Experience

2011-2014: JSPS Research Fellowship for Young Scientists (DC1)

2014-2016: Assistant Professor, WPI-AIMR, Tohoku University

2014-present: Researcher, ERATO Isobe Degenerate π-Integration Project, JST

2016-present: Assistant Professor, Department of Chemistry, The University of Tokyo

Awards and Honors

2016: Inoue Research Award for Young Scientists

2014: CSJ Student Presentation Award

(Annual Meeting of the Chemical Society Japan 2014)

2013: Student Presentation Award

(The 63th Conference of Japan Society of Coordination Chemistry)

2013: Student Presentation Award

(Summer School of the Japan Society of Coordination Chemistry 2013)

2012: Poster Presentation Award

(Summer School of the Japan Society of Coordination Chemistry 2012)

2010: Poster Presentation Award

(5th International Symposium on Macrocyclic and Supramolecular Chemistry)

List of Publications

1. “Wavelength-dependent Magneto-electroluminescence Effects in Fluorescent Single-layer Organic Light-emitting Devices Comprising Macrocyclic Aromatic Hydrocarbons”
   S.-T. Pham, K. Ikemoto, K. Z. Suzuki, T. Izumi, H. Taka, H. Kita, S. Sato, H. Isobe, S. Mizukami
   APL Mater. **2018**, *6*, 026103.
   (*Selected as Editor's pick*)

2. “[*n*]Cyclo-3,6-phenanthrenylene: Synthesis, Structures and Fluorescence”
   Y. Tian, K. Ikemoto, S. Sato, H. Isobe
   Chem. Asian J. **2017**, *12*, 2093–2097.

3. “Entropy-driven Ball-in-bowl Assembly of Fullerene and Geodesic Phenylene Bowl”
   K. Ikemoto, R. Kobayashi, S. Sato, H. Isobe
   Org. Lett. **2017**, *19*, 2362–2365.

4. "Synthesis and Bowl-in-Bowl Assembly of a Geodesic Phenylene Bowl"
   K. Ikemoto, R. Kobayashi, S. Sato, H. Isobe
   Angew. Chem., Int. Ed. **2017**, *56*, 6511–6514.
   (*Very Important Paper*)
   (*Selected as Inside Back Cover*)
   (*Highlighted in "Kagaku"*)
   (*Highlighted in "Angew. Chem., Int. Ed.* **2017**, *56*, 10642–10643. *"*)

5. “Efficient Blue Electroluminescence from a Single-layer Organic Device Composed Solely of Hydrocarbons”
   T. Izumi, Y. Tian, K. Ikemoto, A Yoshii, T. Koretsune, R. Arita, H. Kita, H. Taka, S. Sato, H. Isobe
   Chem. Asian J. **2017**, *12*, 730–733.

6. "Structural Modulation of Macrocyclic Materials for Charge Carrier Transport Layers in Organic Light-Emitting Devices"
   A Yoshii, K. Ikemoto, T. Izumi, H. Kita, H. Taka, T. Koretsune, R. Arita, S. Sato, H. Isobe
   ECS J. Solid State Sci. Technol. **2017**, *6*, M3065–M3067.

7. "Synthesis and Structures of π-Extended [*n*]Cyclo-*para*-phenylenes (*n* = 12, 16, 20) Containing *n*/2 Nitrogen Atoms "
   K. Ikemoto, M. Fujita, P. C. Too, Y. L. Tnay, S. Sato, S. Chiba, H. Isobe
   Chem. Lett. **2016**, *45*, 658–660.
   (*Editor's choice*)

8. "Introduction of Nitrogen Atoms in [*n*]Cyclo-*meta*-phenylenes *via* Cross Coupling Macrocyclization"
J. Y. Xue, K. Ikemoto, S. Sato, H. Isobe
Chem. Lett. **2016**, *45*, 676–678.

9. "One-pot Synthesis of [*n*]Cyclo-1,3-pyrenylenes via Ni-mediated Macrocyclization"
K. Ikemoto, S. Sato, H. Isobe
Chem. Lett. **2016**, *45*, 217–219.

10. "Modular Synthesis of Aromatic Hydrocarbon Macrocycles for Simplified, Single-Layer Organic Light-Emitting Devices"
K. Ikemoto, A. Yoshii, T. Izumi, H. Taka, H. Kita, J. Y. Xue, R. Kobayashi, S. Sato, H. Isobe
J. Org. Chem. **2016**, *81*, 662–666.

11. "Aromatic Hydrocarbon Macrocycles for Highly Efficient Organic Light-Emitting Devices with Single-Layer Architecture "
J. Y. Xue, T. Izumi, S. Yoshii, K. Ikemoto, T. Koretsune, R. Akashi, R. Arita, H. Taka, H. Kita, S. Sato, H. Isobe
Chem. Sci. **2016**, *7*, 896–904.
(*Selected as Inside Back Cover*)
(*The 50 most downloaded Chemical Science articles of 2016*)

12. "Cyclo-*meta*-phenylene Revisited: Nickel-Mediated Synthesis, Molecular Structures and Device Applications"
Y. J. Xue, K. Ikemoto, N. Takahashi, T. Izumi, H. Taka, H. Kita, S. Sato, H. Isobe
J. Org. Chem. **2014**, *79*, 9735–9740.

13. "Networked-Cage Microcrystals for Evaluation of Host-Guest Interactions"
S. Matsuzaki, T. Arai, K. Ikemoto, Y. Inokuma, M. Fujita
J. Am. Chem. Soc. **2014**, *136*, 17899–17901.

14. “X-ray Snapshot Observation of Palladium-Mediated Aromatic Bromination in a Porous Complex”
K. Ikemoto, Y. Inokuma, K. Rissanen, M. Fujita
J. Am. Chem. Soc. **2014**, *136*, 6892–6895.
(*Highlighted in Chemistry World*)

15. “Diels–Alder via Molecular Recognition in a Crystalline Molecular Flask”
K. Ikemoto, Y. Inokuma, M. Fujita

J. Am. Chem. Soc. **2011**, *133*, 16806–16808.

16. “Shedding Light on Hidden Reaction Pathways in Radical Polymerization by a Porous Coordination Network”
    Y. Inokuma, S. Nishiguchi, K. Ikemoto, M. Fujita
    Chem. Commun. **2011**, *47*, 12113–12115.

17. “The Reaction of Organozinc Compounds with an Aldehyde within a Crystalline Molecular Flask”
    K. Ikemoto, Y. Inokuma, M. Fujita
    Angew. Chem. Int. Ed. **2010**, *49*, 5750–5752.

18. “Syntheis of Optically Active, Unnatural α–substituted Glutamic Acid Derivatives by a Chiral Calcium-catalyzed 1,4-addition Reaction”
    T. Tsubogo, Y. Kano, K. Ikemoto, Y. Yamashita, S. Kobayashi
    Tetrahedron: Asymmetry **2010**, *21*, 1221–1225.