Curriculum Vitae

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Name: Yuki IDE
Title: Specially Appointed Assistant Professor
Affiliation: Institute for Chemical Reaction Design and Discovery (WPI-ICReDD), Hokkaido University
Address: Hokkaido University, Kita 21, Nishi 10, Kita-ku, Sapporo, Hokkaido, 001-0021, Japan
Email: ide.yuki @ icredd.hokudai.ac.jp
TEL: +81-11-706-9693
ORCiD: 0000-0003-0648-0503
Scopus ID: 56333925800
Web of Science ResearcherID: N-8514-2019
research map: https://researchmap.jp/ide_yuki

Education

2013. 03 **B. Sc. and Eng.** Interdisciplinary Faculty of Science and Engineering, Shimane University, Japan (Supervisors: Prof. Makoto Handa and Assoc. Prof. Takahisa Ikeue)
2015. 03 **M. Sc.** Interdisciplinary Graduate School of Science and Engineering, Shimane University, Japan (Supervisors: Prof. Makoto Handa and Assoc. Prof. Takahisa Ikeue)
2018. 03 **Ph.D** Interdisciplinary Graduate School of Science and Engineering, Shimane University, Japan (Supervisor: Assoc. Prof. Takahisa Ikeue)

Employment

2020. 04 – present **Specially Appointed Assistant Professor**, Institute for Chemical Reaction Design and Discovery (WPI-ICReDD), Hokkaido University (Prof. Yasuhide Inokuma)
2018. 04 – 2020. 03 **Program-Specific Researcher**, Institute for Chemical Research (ICR), Kyoto University (Prof. Yasujiro Murata)

Awards

2014. 04 Shimane University Student Award
2013. 11 CSJ West Japan Chemistry Forum 2013 in Hiroshima, Student Presentation Award

Affiliated academic society

The Chemical Society of Japan(CSJ), The Society of Physical Organic Chemistry, Japan(JPOC), The Society of Electron Spin Science and Technology(SEST)

Publications (peer-reviewed)

28. CH_3CN@open-C_{60}: An Effective Inner-Space Modification and Isotope Effect Inside a Nano-Sized Flask.
Guanglin Huang, **Yuki Ide**, Yoshifumi Hashikawa, Takashi Hirose, Yasujiro Murata*,
Chem. Eur. J., **2023**, e202301161(page 7). (Cover Feature, Hot paper)
DOI: 10.1002/chem.202301161

27. Machine Learning-Based Analysis of Molar and Enantiomeric Ratios and Reaction Yields Using Images of Solid Mixtures.
Yuki Ide*, Hayato Shirakura, Taichi Sano, Muchuchamy Murugavel, Yuya Inaba, Sheng Hu, Ichigaku Takigawa*, Yasuhide Inokuma*, *Ind. Eng. Chem. Res.*, **2023**, *62*, 13790–13798 (DOI: 10.1021/acs.iecr.3c01882); *ChemRxiv*, **2023 (**DOI: 10.26434/chemrxiv-2023-3gdsb).
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26. The Geometry of Calix[3]pyrrole and the Formation of the Calix[3]pyrrole·F^- Complex in Solution.
Ranajit Saha*, Jenny Pirillo, **Yuki Ide**, Yasuhide Inokuma, Yuh Hijikata*,
Theor. Chem. Acc., **2023**, *142*, article number 50(page 13). DOI: 10.1007/s00214-023-02982-1

25. Chain Length-dependent Hydrogen-Bonded Self-Assembly of Terminally Functionalized Discrete Polyketones.
Kilingaru. I. Shivakumar, Yumehiro Manabe, Tomoki Yoneda, **Yuki Ide**, Yasuhide Inokuma*,
Precis. Chem., **2023**, *1*, 34–39. DOI: 10.1021/prechem.3c00025

24. Chiral Calix[3]pyrrole Derivatives: Synthesis, Racemization Kinetics, and Ring Expansion to Calix[9]- and Calix[12]pyrrole Analogues.
Yuya Inaba, Jian Yang, Yu Kakibayashi, Tomoki Yoneda, **Yuki Ide**, Yuh Hijikata, Jenny Pirillo, Ranajit Saha, Jonathan L. Sessler*, Yasuhide Inokuma*,
Angew. Chem. Int. Ed., **2023**, e202301460(page 6). DOI: 10.1002/anie.202301460

23. Toward Calix[2]-type Macrocycles: Synthesis and Structural Analysis of Cyclic Tetraketone and Highly Strained Furanophane.
Taichi Sano, Yuhua Sun, Taichi Mukai, Yuya Inaba, Tomoki Yoneda, **Yuki Ide**, Jenny Pirillo*, Yuh Hijikata*, Yasuhide Inokuma*,
J. Porphyrin Phthalocyanines, **2023**, *27*, 1067–1073. DOI: 10.1142/S1088424623500189

22. Absorption Spectra of Calix[3]pyrrole Analogues as Probes for Contracted Macrocycles.
Keita Watanabe, Ranajit Saha, Yuya Inaba, Yumehiro Manabe, Tomoki Yoneda, **Yuki Ide**, Yuh Hijikata, Yasuhide Inokuma*, *J. Porphyrin Phthalocyanines*, **2023**, *27*, 157–163.
DOI: 10.1142/S1088424622500754

21. Determination of the Critical Chain Length for Macromolecular Crystallization Using Structurally Flexible Polyketones.
Yuki Ide, Yumehiro Manabe, Yuya Inaba, Yusuke Kinoshita, Jenny Pirillo, Yuh Hijikata*, Tomoki Yoneda, Kilingaru I. Shivakumar, Saki Tanaka, Hitoshi Asakawa, Yasuhide Inokuma*, *Chem. Sci.*, **2022**, *13*, 9848–9854. (Outside front cover, 2022 ChemSci Pick of the Week, 2022 Chemical Science HOT Article, Press Releasee) DOI: 10.1039/d2sc03083g

20. Alkali Metal Ion Binding using Cyclic Polyketones.
Narito Ozawa, Kilingaru I. Shivakumar, Muthuchamy Murugavel, Yuya Inaba, Tomoki Yoneda, **Yuki Ide**, Jenny Pirillo, Yuh Hijikata, Yasuhide Inokuma*,
Chem. Commun., **2022**, *58*, 2971–2974. (Inside front cover and Hot Article)
DOI: 10.1039/d2cc00361a

19. Strain-Induced Ring Expansion Reactions of Calix[3]pyrrole-Related Macrocycles.
Yuya Inaba, Yu Kakibayashi, **Yuki Ide**, Jenny Pirillo, Yuh Hijikata, Tomoki Yoneda, Yasuhide Inokuma*, *Chem. Eur. J.,* **2022**, *28*, e202200056. (Hot Paper)
DOI: 10.1002/chem.202200056

18. An H_2O_2 Molecule Stabilized inside Open-Cage C_{60} Derivatives by a Hydroxy Stopper.
Guanglin Huang, Shota Hasegawa, Yoshifumi Hashikawa, **Yuki Ide**, Takashi Hirose, Yasujiro Murata*, *Chem. Eur. J.*, **2022**, *28*, e202103836. (Very Important Paper)
DOI: 10.1002/chem.202103836

17. Isopyrazole-Masked Tetraketone: Tautomerism and Functionalization for Fluorescent Metal Ligands.
Hayato Shirakura, Yumehiro Manabe, Chika Kasai, Yuya Inaba, Makoto Tsurui, Yuichi Kitagawa, Yasuchika Hasegawa, Tomoki Yoneda, **Yuki Ide**, Yasuhide Inokuma*,
Eur. J. Org. Chem., **2021**, 4345–4349. DOI: 10.1002/ejoc.202100784

16. Calix[3]pyrrole: A Missing Link in Porphyrin-Related Chemistry.
Yuya Inaba, Yu Nomata, **Yuki Ide**, Jenny Pirillo, Yuh Hijikata, Tomoki Yoneda, Atsuhiro Osuka, Jonathan L. Sessler*, Yasuhide Inokuma*,
J. Am. Chem. Soc., **2021**, *143*, 12355–12360. (Press Release) DOI: 10.1021/jacs.1c06331

15. Reversible Redox System of 2-Oxypyritriphyrin(1.2.1) Accompanying Interconversion between 3-Pyridone and 3-Hydroxypyridine Units.
Su-Gi Chong, Tomoki Yoneda*, **Yuki Ide**, Saburo Neya*, *Chem. Asian J.,* **2021**, *16*, 1077–1080.
DOI: 10.1002/asia.202100200

14. Insoluble π-Conjugated Polyimine as An Organic Adsorbent for Group 10 Metal Ions.
Hayato Shirakura, Yuh Hijikata*, Jenny Pirillo, Tomoki Yoneda, Yumehiro Manabe, Muthuchamy Murugavel, **Yuki Ide***, Yasuhide Inokuma*,
Eur. J. Inorg. Chem., **2021***,* 1705–1708. DOI: 10.1002/ejic.202100172

13. Aliphatic Polyketones as Classic Yet New Molecular Ropes for Structural Diversity in Organic Synthesis.
Yasuhide Inokuma*, Tomoki Yoneda, **Yuki Ide**, Shota Yoshioka,
Chem. Commun., **2020***, 56,* 9079–9093. (Future Article) DOI: 10.1039/d0cc02977g

12. Singlet Oxygen Generation of Subphthalocyanine-fused Dimer and Trimer.
Rei Fujishiro, Hayato Sonoyama, **Yuki Ide**, Takuya Fujimura, Ryo Sasai, Nichole E.M. Kaufman, Zehua Zhou, M. Graça H. Vicente, Takahisa Ikeue*,
J. Porphyrins Phthalocyanines, **2019**, *24*, 211–219. DOI: 10.1142/S1088424619500895

11. Coordination-Induced Spin-State Switching of An Aminyl-Radical-Bridged Nickel(II) Porphyrin Dimer between Doublet and Sextet States.
Daiki Shimizu, **Yuki Ide**, Takahisa Ikeue, Atsuhiro Osuka*,
Angew. Chem. Int. Ed., **2019**, *58*, 5023–5027. DOI: 10.1002/anie.201900792

10. Synthesis, Photodynamic Activities, and Cytotoxicity of New Water-soluble Cationic Gallium(III) and Zinc(II) Phthalocyanines.
Rei Fujishiro, Hayato Sonoyama, **Yuki Ide**, Takuya Fujimura, Ryo Sasai, Atsushi Nagai*, Shigeki Mori, Nichole E.M. Kaufman, Zehua Zhou, M. Graça H. Vicente, Takahisa Ikeue*
J. Inorg. Biochem., **2019**, *192*, 7–16. DOI: 10.1016/j.jinorgbio.2018.11.013

9. Benzonorcorrole Ni^{II} Complexes: Enhancement of Paratropic Ring Current and Singlet Diradical Character by Benzo-Fusion.
Takuya Yoshida, Kohtaro Takahashi, **Yuki Ide**, Ryohei Kishi, Jun-ya Fujiyoshi, Sangsu Lee, Yuya Hiraoka, Dongho Kim, Masayoshi Nakano*, Takahisa Ikeue, Hiroko Yamada, Hiroshi Shinokubo*, *Angew. Chem. Int. Ed.*, **2018**, *57*, 2209–2213. DOI: 10.1002/anie.201712961

8. Nickel (II) Pyrrocorphin: Enhanced Binding Ability in A Highly Reduced Porphyrin Complexes.
Yuki Ide, Takamitsu Kuwahara, Syo Takeshita, Rei Fujishiro, Masaaki Suzuki, Shigeki Mori, Hiroshi Shinokubo, Mikio Nakamura, Katsumi Yoshino, Takahisa Ikeue*,
J. Inorg. Biochem., **2018**, *178*, 115–124. DOI: 10.1016/j.jinorgbio.2017.10.012

7. Crystal Structure of A Six-coordinated [5,10,15,20-Tetrakis(2,4,6-trimethylphenyl) Porphyrinato-k^4N]Iron(III) Complex with Two 3,5-Dimethylpyridine *N*-Oxides.
Yuki Ide, Haruka Hosoda, Hiroki Ishimae, Shigeki Mori, Takahisa Ikeue*,
X-ray Struct. Anal. Online, **2017**, *33*, 49–51. DOI: 10.2116/xraystruct.33.49

6. Crystal Structure of A Six-coordinated (2,3,7,8,12,13,17,18- Octaethyl porphyrinato)Iron(III) Complex with Two 4-Methylpyridine *N*-Oxides.
Yuki Ide, Yuya Yamada, Shigeki Mori, Takahisa Ikeue*,
X-ray Struct. Anal. Online, **2017**, *33*, 25–27. DOI: 10.2116/xraystruct.33.25

5. Different Antiferromagnetic Coupling between 5,5'- and 10,10'-Linked Iron(III) Corrole Dimers.
Takayuki Tanaka*, Shota Ooi, **Yuki Ide**, Takahisa Ikeue*, Masaaki Suzuki, Peter. P.-Y. Chen, Masashi Takahashi, Atsuhiro Osuka*,
Eur. J. Inorg. Chem., **2017**, *10*, 1374–1381. DOI: 10.1002/ejic.201601363

4. Molecular Structure and Spectroscopic Properties of [2,3,9,10,16,17,23,24- octakis(3-carboxyphenoxy) Phthalocyaninato-k^{4}N](Pyridine-kN) Zinc(II) Pyridine Octasolvate.
Rei Fujishiro, Hayato Sonoyama, **Yuki Ide**, Shigeki Mori*, Tamotsu Sugimori, Atsushi Nagai, Katsumi Yoshino, Mikio Nakamura, Takahisa Ikeue*
Heterocycles, **2017**, *94*, 131–139. DOI: 10.3987/COM-16-13608

3. Spin-crossover between High-spin (S = 5/2) and Low-spin (S = 1/2) States in Six-coordinate Iron(III) Porphyrin Complexes having Two Pyridine-N Oxide Derivatives.
Yuki Ide, Nami Murai, Hiroki Ishimae, Masaaki Suzuki, Shigeki Mori*, Masashi Takahashi*, Mikio Nakamura*, Katsumi Yoshino, Takahisa Ikeue*,
Dalton Trans., **2017**, *46*, 242–249. DOI: 10.1039/c6dt03859j

2. Preparation, Structure, and Dynamic and Electrochemical Behaviors of Dinuclear Rhodium(I) Complexes with Bridging Formamidinato Ligands.
Yuki Ide, Takahisa Ikeue*, Yusuke Kataoka, Ryoko Inoue, Mikio Nakamura*, Daisuke Yoshioka, Masahiro Mikuriya, Tatsuya Kawamoto, Makoto Handa*,
J. Organomet. Chem., **2016**, *803,* 92–103. DOI: 10.1016/j.jorganchem.2015.12.018

1. Synthesis, Structures, and Properties of Lantern-type Dinuclear Ruthenium(II,III) Complexes cis-[Ru_2{3,5-$(CF_3)_2$-pf}$_2$(O_2CMe)$_2$Cl] and [Ru_2{3,5-$(CF_3)_2$-pf}$_3$(O_2CMe)Cl], 3,5-$(CF_3)_2$-pf$^-$ = *N,N'*-bis[3,5-bis(trifluoromethyl)phenyl] Formamidinate Anion.
Yasuko Harada, Takahisa Ikeue*, **Yuki Ide**, Yuko Kimura, Ichiro Hiromitsu, Daisuke Yoshioka, Masahiro Mikuriya*, Yusuke Kataoka*, Makoto Handa*,
Inorg. Chim. Acta, **2015**, *424*, 186–193. DOI: 10.1016/j.ica.2014.07.076