

Koji HARANO (原野幸治) , Dr.

Project Associate Professor
Presidential Endowed Chair for "Molecular Technology Innovation"
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Birth: March 21, 1980, Ube (Yamaguchi Prefecture), Japan

Nationality: Japan

Language: Japanese and English

Research Interest:

Structural Analysis and Function Design of Self-Assembled Organic Materials Based on Electron Microscopy

Education:

- 2002 B.S. (Chemistry)
Department of Chemistry, The University of Tokyo (Prof. Mitsuhiro Shionoya)
- 2007 Ph.D. (Chemistry)
Department of Chemistry, The University of Tokyo (Prof. Mitsuhiro Shionoya)

Research and Professional Experience:

- 2004 Apr.-2007 Mar. Young Research Fellow of Japan Society for the Promotion of Science (JSPS, DC1)
- 2007 Apr.-Jun. Postdoctoral Researcher, Department of Chemistry, Tohoku University (Prof. Masahiro Yamashita's group)
- 2007 Jul.-2015 Mar. Assistant Professor, Department of Chemistry, The University of Tokyo (Prof. Eiichi Nakamura's group)
- 2015 Apr.-Present Project Associate Professor, Organization for Interdisciplinary Research Projects, The University of Tokyo

Academic Experience:

- 2016 Outside Lecturer, Rikkyo University
- 2018 Outside Lecturer, Tokyo University of Science

2019

Outside Lecturer, Ibaraki University

Membership:

The Chemical Society of Japan

Division of the Organic Crystals, The Chemical Society of Japan

The Japanese Society of Microscopy

The Society of Physical Organic Chemistry, Japan

Fullerenes, Nanotubes and Graphene Research Society, Japan

The Society of Polymer Science, Japan

The Society of Synthetic Organic Chemistry, Japan

Japan Society of Coordination Chemistry

Professional Functions:

2016- Publicity Committee, Division of the Organic Crystals, The Chemical Society of Japan

2017- Representative member, The Chemical Society of Japan

2016-2018 Collaborator, “Dynamical Ordering of Biomolecular Systems for Creation of Integrated Functions”, Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan

2019 Referee for Grand-in-Aid, JSPS

Awards:

2004 Poster Award, The 54th Symposium on Coordination Chemistry of Japan

2005 Student Presentation Award, The 87th Annual Meeting of the Chemical Society of Japan

2005 Poster Award, Tokyo Summer School on Frontier Chemistry 2005

2009 25th Inoue Research Award for Young Scientists

2012 Global COE Lectureship Award

2014 Presentation Award, The 94th Annual Meeting of the Chemical Society of Japan

2015 Rising Star Prize, CREST Molecular Technology, Japan Science and Technology Agency

2016 The 65th Chemical Society of Japan Award for Young Chemists

2016 The 9th Kazato Research Encouragement Prize

2018 Chemist Award BCA, MSD Life Science Foundation

2019 Thieme Chemistry Journals Award

2019 The Young Scientists' Prize, The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology

2019 Encouragement Award, The Japan Society of Microscopy

2020 BCSJ Award (June Issue)

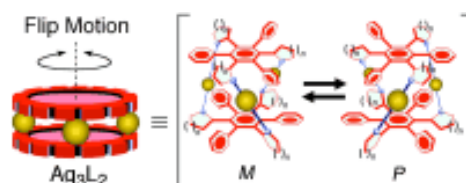
- 2020 Nozoe Memorial Award for Young Organic Chemists, The Society of Physical Organic Chemistry, Japan
- 2020 BCSJ Award (September Issue)

Grants:

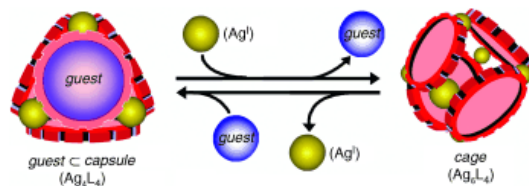
- 2004-2007 Grant-in-Aid for JSPS Fellows, MEXT, Japan
- 2007-2008 Global COE Grants to Young Researchers, MEXT, Japan
- 2009-2011 Grant-in-Aid for Young Scientists (B), MEXT, Japan
- 2010-2011 Global COE Grants to Young Researchers, MEXT, Japan
- 2011-2012 Challenging Exploratory Research, MEXT, Japan
- 2012-2014 Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan
- 2013-2015 Challenging Exploratory Research, MEXT, Japan
- 2014-2017 Grant-in-Aid for Young Scientists (A), MEXT, Japan
- 2015-2019 Grant-in-Aid for Scientific Research (S), MEXT, Japan (Co-investigator)
- 2016-2018 Kazato Research Foundation, Japan
- 2016-2018 Challenging Exploratory Research, MEXT, Japan
- 2016-2020 Team Reader, Development of Systems and Technology for Advanced Measurement and Analysis, JST, Japan
- 2017-2020 Grant-in-Aid for Scientific Research (B), MEXT, Japan
- 2017-2019 Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan
- 2019- Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan
- 2019- Grand-in-Aid for Specially Promoted Research (Co-Investigator)
- 2019-2020 Research Grant, Kondo Zaidan, Japan
- 2020- Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan

Publications List (in reverse chronological order):

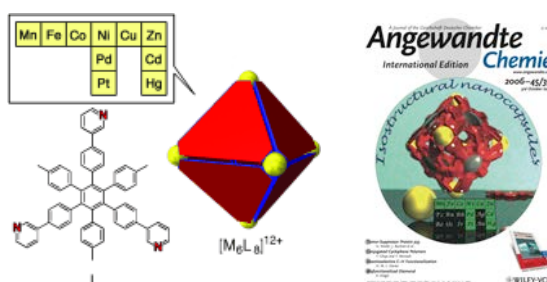
- Quantitative Formation of Sandwich-Shaped Trinuclear Silver(I) Complexes and Dynamic Feature of Their $P \leftrightarrow M$ Flip Motion in Solution, S. Hiraoka, K. Harano, T. Tanaka, M. Shiro, M. Shionoya, *Angew. Chem. Int. Ed.* **42**, 5182–5185 (2003).



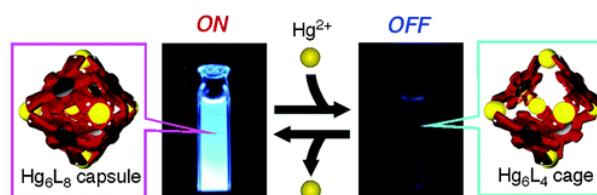
2. Quantitative Dynamic Interconversion between Ag(I)-Mediated Capsule and Cage Complexes Accompanying Guest Encapsulation/Release, S. Hiraoka, K. Harano, M. Shiro, M. Shionoya, *Angew. Chem. Int. Ed.* **44**, 2727–2731 (2005).



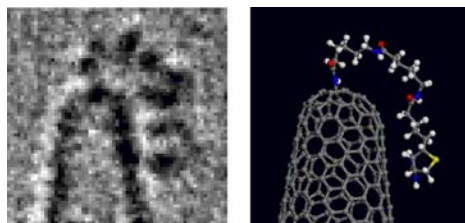
3. Isostructural Coordination Capsules for a Series of Ten Different d^5 – d^{10} Transition-Metal Ions S. Hiraoka, K. Harano, M. Shiro, Y. Ozawa, N. Yasuda, K. Toriumi, M. Shionoya, *Angew. Chem. Int. Ed.* **45**, 6488–6491 (2006). (selected as Very Important Paper & Cover Picture)



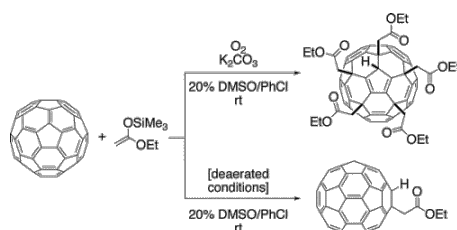
4. 3 nm-Scale Molecular Switching between Fluorescent Coordination Capsule and Nonfluorescent Cage, K. Harano, S. Hiraoka, M. Shionoya, *J. Am. Chem. Soc.* **129**, 5300–5301 (2007).



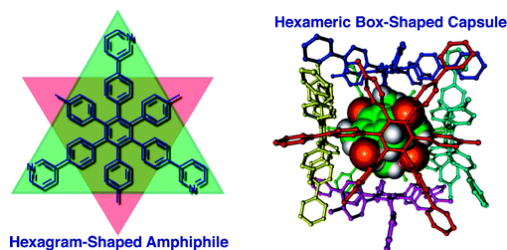
5. Imaging of Conformational Changes of Biotinylated Triamide Molecules Covalently Bonded to a Carbon Nanotube Surface, E. Nakamura, M. Koshino, T. Tanaka, Y. Niimi, Y. Nakamura, K. Harano, H. Isobe, *J. Am. Chem. Soc.* **130**, 7808–7809 (2008). (Highlighted in *Chem. & Eng. News* **86**, 33-34 (2008); *JACS* Image Challenge #27)



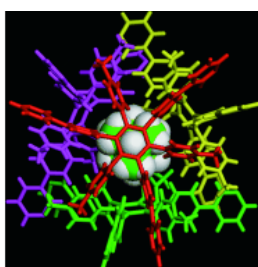
6. Mono- and Penta-Addition of Enol Silyl Ethers to [60]Fullerene, E. Nakamura, S. Mouri, Y. Nakamura, K. Harano, H. Isobe, *Org. Lett.* **10**, 4923–4926 (2008).



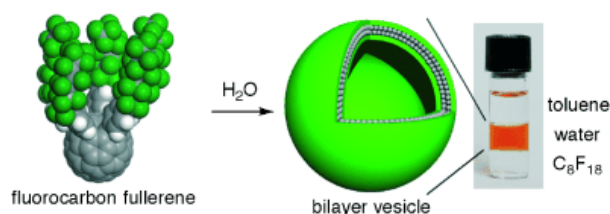
7. A Self-Assembled Organic Capsule Formed from the Union of Six Hexagram-Shaped Amphiphile Molecules, S. Hiraoka, K. Harano, M. Shiro, M. Shionoya, *J. Am. Chem. Soc.* **130**, 14368–14369 (2008).



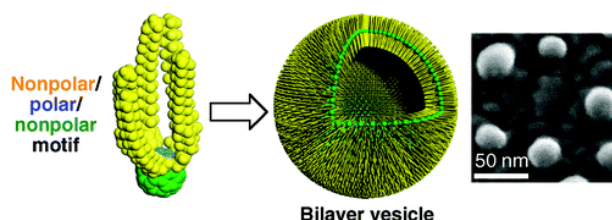
8. Induced-Fit Formation of a Tetrameric Organic Capsule Consisting of Hexagram-Shaped Amphiphile Molecules, S. Hiraoka, K. Harano, T. Nakamura, M. Shiro, M. Shionoya, *Angew. Chem. Int. Ed.* **48**, 7006–7009 (2009).



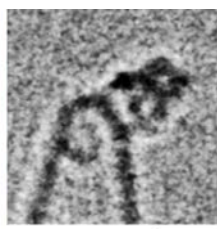
9. Nanometer-Sized Fluorous Fullerene Vesicles in Water and on Solid Surfaces, T. Homma, K. Harano, H. Isobe, E. Nakamura, *Angew. Chem. Int. Ed.* **49**, 1665–1668 (2010).



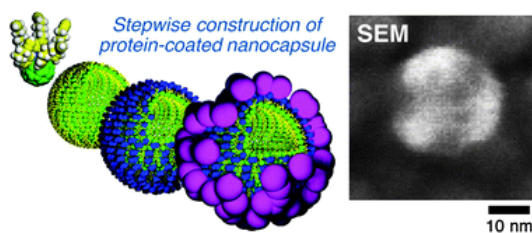
10. Preparation and Properties of Vesicles Made of Nonpolar/Polar/Nonpolar Fullerene Amphiphiles, T. Homma, K. Harano, H. Isobe, E. Nakamura, *J. Am. Chem. Soc.* **133**, 6364–6370 (2011).



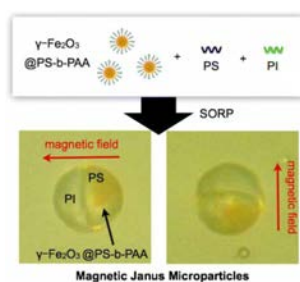
11. Heterogeneous Nucleation of Organic Crystals Mediated by Single-Molecule Templates, K. Harano, T. Homma, Y. Niimi, M. Koshino, K. Suenaga, L. Leibler, E. Nakamura, *Nat. Mater.* **11**, 877–881 (2012). (Highlighted in News and Views; P. Vekilov, *Nat. Mater.* **11**, 838–840 (2012).)



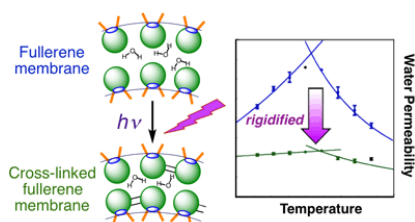
12. Protein-coated Nanocapsules via Multilevel Surface Modification. Controlled Preparation and Microscopic Analysis at Nanometer Resolution, K. Harano, K. Minami, E. Noiri, K. Okamoto, E. Nakamura, *Chem. Commun.* **49**, 3525–3527 (2013).



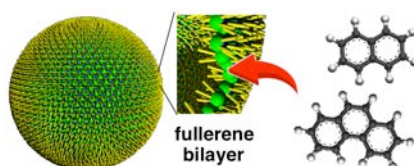
13. Polymer Janus Particles Containing Block-Copolymer Stabilized Magnetic Nanoparticles, H. Yabu, M. Kanahara, M. Shimomura, T. Arita, K. Harano, E. Nakamura, T. Higuchi, H. Jinnai, *ACS Appl. Mater. Interfaces*, **5**, 3262-3266 (2013).



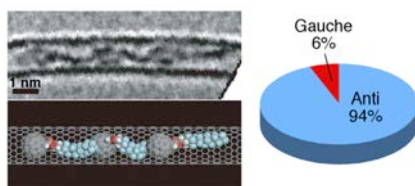
14. Photocrosslinking of Fullerene Vesicles that Prevents Phase Transition and Decreases Water Permeation, K. Harano, A. Narita, E. Nakamura, *Chem. Lett.*, **42**, 1176-1178 (2013). (Selected as Editor's Choice)



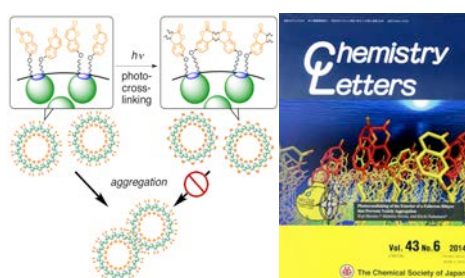
15. Binding of Aromatic Molecules in the Fullerene-Rich Interior of a Fullerene Bilayer Vesicle in Water, K. Harano, R. M. Gorgoll, E. Nakamura, *Chem. Commun.*, **49**, 7629-7631 (2013).



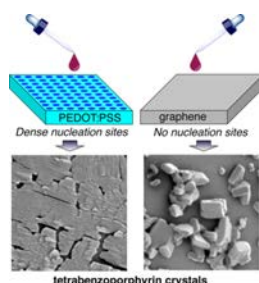
16. Conformational Analysis of Single Perfluoroalkyl Chains by Single-Molecule Real-Time Transmission Electron Microscopic Imaging, K. Harano, S. Takenaga, S. Okada, Y. Niimi, N. Yoshikai, H. Isobe, K. Suenaga, H. Kataura, M. Koshino, E. Nakamura, *J. Am. Chem. Soc.*, **136**, 466-473 (2014).



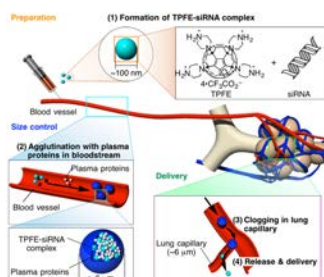
17. Photocrosslinking of the Exterior of a Fullerene Bilayer that Prevents Vesicle Aggregation, K. Harano, A. Narita, E. Nakamura, *Chem. Lett.*, **43**, 877-879 (2014). (Selected as Editor's Choice and Cover picture)



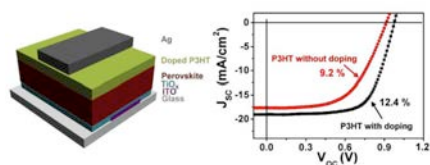
18. Formation of a Polycrystalline Film of Donor Material on PEDOT:PSS Buffer Induced by Crystal Nucleation, K. Harano, S. Okada, S. Furukawa, H. Tanaka, E. Nakamura, *J. Polym. Sci. Pol. Phys.* **52**, 833-841 (2014).



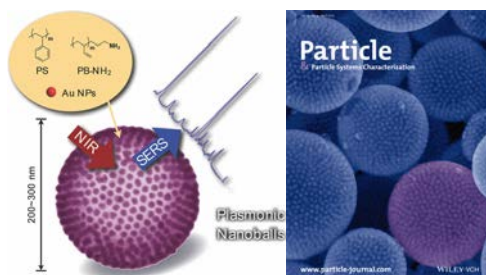
19. siRNA Delivery Targeting to the Lung via Agglutination-Induced Accumulation and Clearance of Cationic Tetraamino Fullerene, K. Minami, K. Okamoto, K. Doi, K. Harano, E. Noiri, E. Nakamura, *Sci. Rep.* **4**, 4916 (2014).



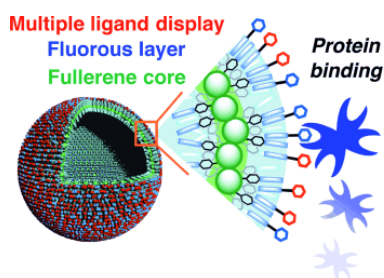
20. Enhancement in the Efficiency of an Organic–Inorganic Hybrid Solar Cell with a Doped P3HT Hole-Transporting Layer on a Void-Free Perovskite Active Layer, Y. Guo, C. Liu, K. Inoue, K. Harano, H. Tanaka, E. Nakamura, *J. Mater. Chem. A* **2**, 13827–13830 (2014).



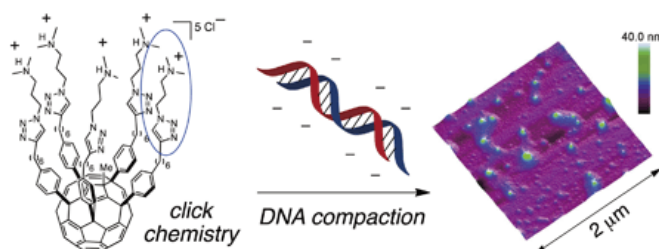
21. Fabrication of NIR-Excitable SERS-Active Composite Particles Comprised of Densely-Packed Au Nanoparticles on Polymer Microparticles, M. Kanahara, H. Satoh, T. Higuchi, A. Takahara, H. Jinnai, K. Harano, S. Okada, E. Nakamura, Y. Matsuo, H. Yabu, *Part. Part. Syst. Charact.* **32**, 441–447 (2015). (Selected as Cover picture)



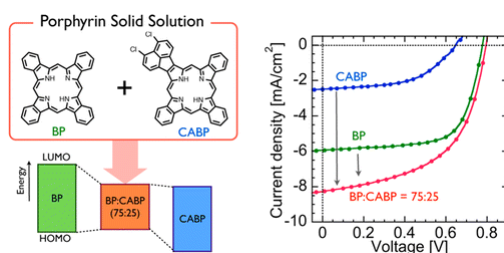
22. High-Density Display of Protein Ligands on Self-Assembled Capsules via Noncovalent Fluorous Interactions, K. Harano, J. Yamada, S. Mizuno, E. Nakamura, *Chem. Asian J.* **10**, 172–176 (2015).



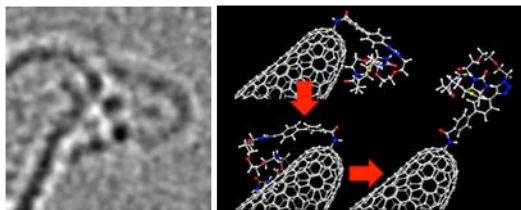
23. DNA Binding of Pentaamino[60]fullerene Synthesized using Click Chemistry, H. Nitta, K. Minami, K. Harano, E. Nakamura, *Chem. Lett.*, **44**, 378–380 (2015). (Selected as Editor's Choice)



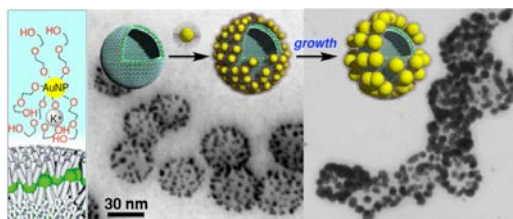
24. Organic Solid Solution Composed of Two Structurally Similar Porphyrins for Organic Solar Cells, Y. Zhen, H. Tanaka, K. Harano, S. Okada, Y. Matsuo, E. Nakamura, *J. Am. Chem. Soc.*, **137**, 2247–2252 (2015).



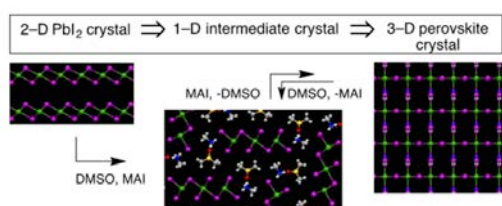
25. Electron Microscopic Observation of Selective Excitation of Conformational Change of a Single Organic Molecule, R. M. Gorgoll, E. Yücelen, A. Kumamoto, N. Shibata, K. Harano, E. Nakamura, *J. Am. Chem. Soc.*, **137**, 3474–3477 (2015).



26. Cooperative Self-Assembly of Gold Nanoparticles on the Hydrophobic Surface of Vesicles in Water, R. M. Gorgoll, T. Tsubota, K. Harano, E. Nakamura, *J. Am. Chem. Soc.*, **137**, 7568–7571 (2015).



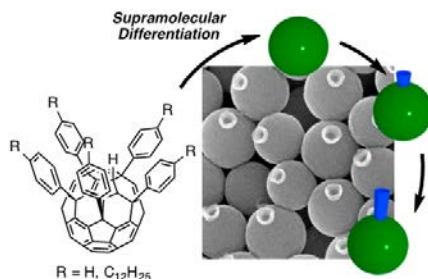
27. Chemical Pathways Connecting Lead(II) Iodide and Perovskite via Polymeric Plumbate(II) Fiber, Y. Guo, K. Shoyama, W. Sato, Y. Matsuo, K. Inoue, K. Harano, C. Liu, H. Tanaka, E. Nakamura, *J. Am. Chem. Soc.*, **137**, 15907–15914 (2015).



28. Nanoscale Control of Polymer Assembly on a Synthetic Catalyst-Bilayer System, R. M. Gorgoll, K. Harano, E. Nakamura, *J. Am. Chem. Soc.*, **138**, 9675–9681 (2016).



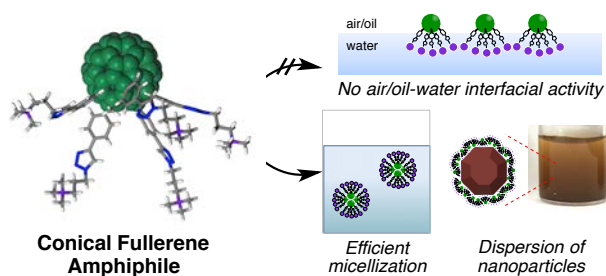
29. Supramolecular Differentiation for Constructing Anisotropic Fullerene Nanostructures by Time-Programmed Control of Interfacial Growth, P. Bairei, K. Minami, J. P. Hill, W. Nakanishi, L. K. Shrestha, C. Liu, K. Harano, E. Nakamura, K. Ariga, *ACS Nano*, **10**, 8796–8802 (2016).



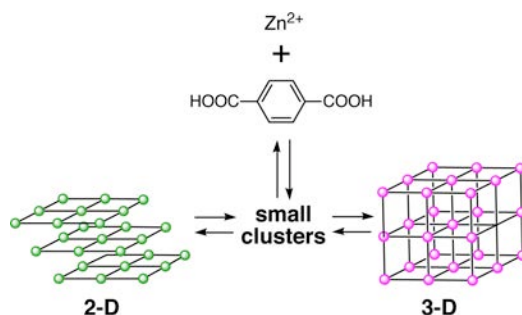
30. Heterogeneous Catalase-like Activity of Gold(I)-Cobalt(III) Metallo-supramolecular Ionic Crystals, M. Yamada, N. Yoshinari, N. Kuwamura, T. Saito, S. Okada, S. P. Maddala, K. Harano, E. Nakamura, K. Yamagami, K. Yamanaka, A. Sekiyama, T. Suenobu, Y. Yamada, T. Konno, *Chem. Sci.*, **8**, 2671–2676 (2017).



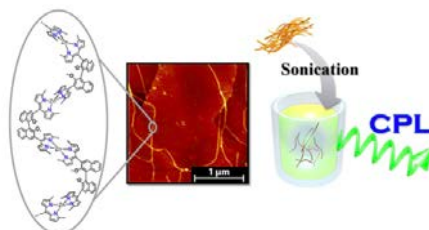
31. Conical Ionic Amphiphiles Endowed with Micellization Ability but Lacking Air– and Oil–Water Interfacial Activity, H. Nitta, K. Harano, M. Isomura, E. H. G. Backus, M. Bonn, E. Nakamura, *J. Am. Chem. Soc.*, **139**, 7677–7680 (2017).



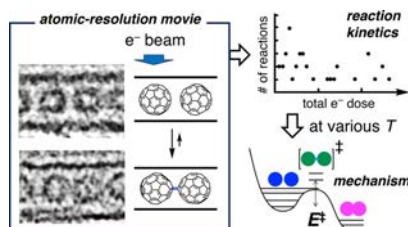
32. Experimental Study on Interconversion between Cubic MOF-5 and Square MOF-2 Arrays, L. Schweighauser, K. Harano, E. Nakamura, *Inorg. Chem. Commun.*, **84**, 1–4 (2017).



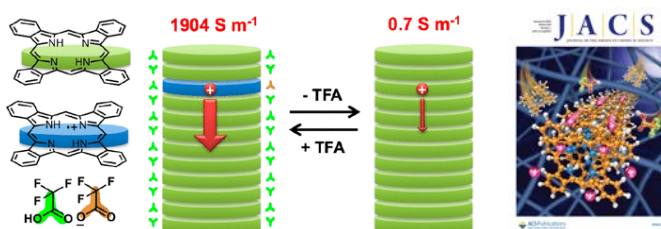
33. Bis(dipyrrinato)zinc(II) Complex Chiroptical Wires: Exfoliation into Single Strands and Intensification of Circularly Polarized Luminescence, R. Aoki, R. Toyoda, J. F. Kögel, R. Sakamoto, J. Kumar, Y. Kitagawa, K. Harano, T. Kawai, H. Nishihara, *J. Am. Chem. Soc.*, **139**, 16024–16027 (2017).



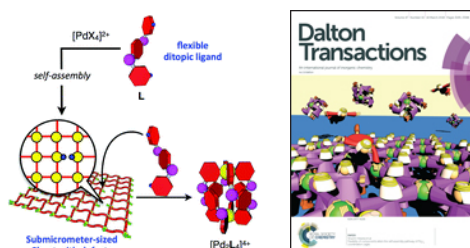
34. Direct Microscopic Analysis of Individual C₆₀ Dimerization Events: Kinetics and Mechanisms, S. Okada, S. Kowashi, L. Schweighauser, K. Yamanouchi, K. Harano, E. Nakamura, *J. Am. Chem. Soc.*, **139**, 18281–18287 (2017). (Highlighted in Kagaku Kogyo Nippo, Kagaku Shinbun, Gendai Kagaku, Kagaku, Chem-Station, and JEOL website)



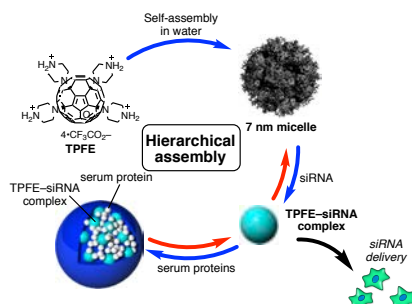
35. Acid-Responsive Conductive Nanofiber of Tetrabenzoporphyrin Made by Solution Processing, Y. Zhen, K. Inoue, Z. Wang, T. Kusamoto, K. Nakabayashi, S. Ohkoshi, W. Hu, Y. Guo, K. Harano, E. Nakamura, *J. Am. Chem. Soc.*, **140**, 62–65 (2018). (Selected as Cover picture)



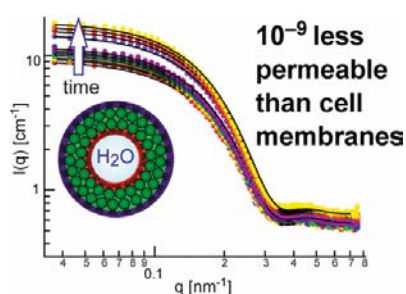
36. Flexibility of Components Alters the Self-assembly Pathway of Pd₂L₄ Coordination Cages, S. Kai, S. P. Maddala, T. Kojima, S. Akagi, K. Harano, E. Nakamura, S. Hiraoka, *Dalton Trans.* **47**, 3258–3263 (2018). (Selected as Front cover)



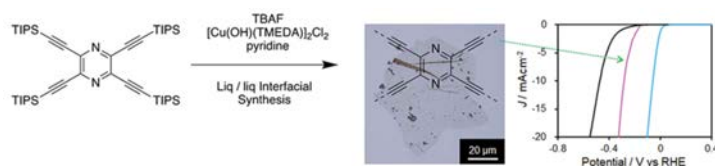
37. Hierarchical Assembly of siRNA with Tetraamino Fullerene in Physiological Conditions for Efficient Internalization into Cells and Knockdown, K. Minami, K. Okamoto, K. Harano, E. Noiri, E. Nakamura, *ACS Appl. Mater. Interfaces*, **10**, 19347–19354 (2018).



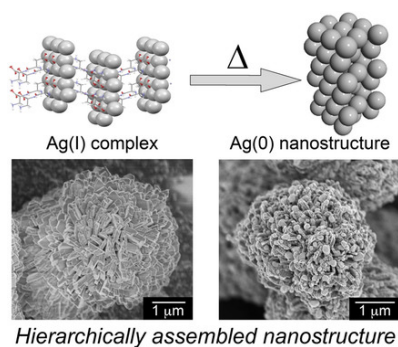
38. Neutron Scattering Reveals Water Confined in a Watertight Bilayer Vesicle, W. Abuillan, A. S. Becker, B. Demé, T. Homma, H. Isobe, K. Harano, E. Nakamura, M. Tanaka, *J. Am. Chem. Soc.*, **140**, 11261–11266 (2018).



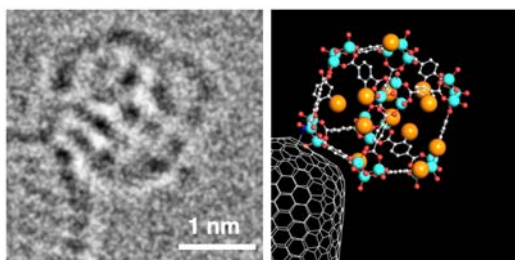
39. Pyrazine-Incorporated Graphdiyne Nanofilm as a Metal-Free Electrocatalyst for Hydrogen Evolution Reaction, R. Sakamoto, R. Shiotsuki, K. Wada, N. Fukui, H. Maeda, J. Komeda, R. Sekine, K. Harano, H. Nishihara, *J. Mater. Chem. A*, **6**, 22189–22194 (2018).



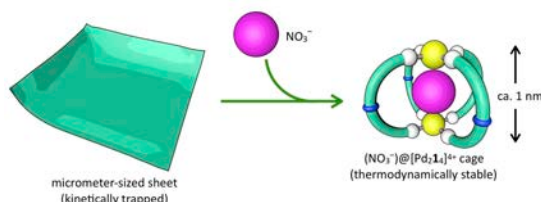
40. Preparation of Hierarchically Assembled Silver Nanostructures based on the Morphology of Crystalline Peptide-Silver(I) Complexes, R. Miyake, Y. Nitani, Y. Nakagawa, J. Xing, K. Harano, E. Nakamura, J. Okabayashi, T. Minamikawa, K. Uruma, K. Kanaizuka, M. Kurihara: *ChemPlusChem*, **84**, 295–301 (2019). (Highlighted in ChemistryViews)



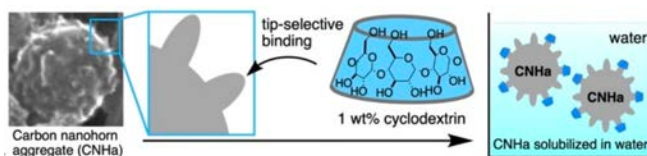
41. Atomistic Structures and Dynamics of Prenucleation Clusters in MOF-2 and MOF-5 Syntheses, J. Xing, L. Schweighauser, S. Okada, K. Harano, E. Nakamura, *Nat. Commun.*, **10**, 3608 (2019). (Over 7000 views in 3 weeks; selected as Editor's highlights; highlighted in Nanowerk, Phys.org, Science Daily, Lab Manager, Chem Europe, Labonline, infosurhoy, Weather herald, SCIENCECodex, EurekAlert!, AlphaGalileo, TECH EXPLORIST, JEOL English website), MyPortal, Tech Explorist, ZME Science, Reddit, Sohu, 163, Toutiao, Huanqiukexue, kknnews Web, Materials and Testing Web, China Media Web, Instrument Information Web, Nanoer Web, GuruMeditation, Chem Germany, The Nikkei, JEOL Japan, and Bionet; The Mainichi, Kagaku Kogyo Nippo)



42. Bifurcation of Self-Assembly Pathways to Sheet or Cage Controlled by Kinetic Template Effect, L. H. Foianesi-Takeshige, S. Takahashi, T. Tateishi, R. Sekine, A. Okazawa, W. Zhu, T. Kojima, K. Harano, E. Nakamura, H. Sato, S. Hiraoka, *Commun. Chem.* **2**, 128 (2019). (Highlighted in Nikkei press release)



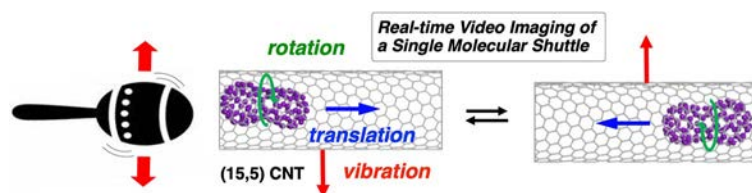
43. Cyclodextrins as Surfactants for Solubilization and Purification of Carbon Nanohorn Aggregates, H. Hanayama, J. Yamada, K. Harano, E. Nakamura, *Chem. Asian J.* **15**, 1549–1552 (2020).



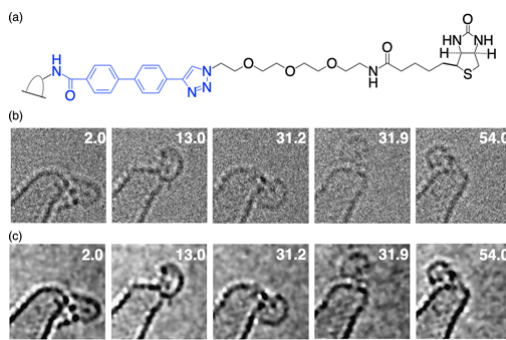
44. Spiro-conjugated Carbon/Heteroatom-bridged *p*-Phenylenevinylenes: Synthesis, Properties, and Microcrystal Electron Crystallographic Analysis of Racemic Solid Solutions, H. Hamada, T. Nakamuro, K. Yamashita, H. Yanagisawa, O. Nureki, M. Kikkawa, K. Harano, R. Shang, E. Nakamura, *Bull. Chem. Soc. Jpn.* **93**, 776–782 (2020). (BCSJ Award Article, Selected as Cover Picture, open-access)



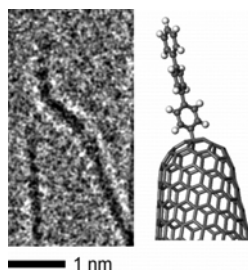
45. Real-Time Video Imaging of Mechanical Motions of a Single Molecular Shuttle with Sub-millisecond Sub-angstrom Precision, T. Shimizu, D. Lungerich, J. Stuckner, M. Murayama, K. Harano, E. Nakamura, *Bull. Chem. Soc. Jpn.* **93**, 1079–1085 (2020). (Open-access, highlighted in Newsweek, Yahoo!News, MyNavi News, Science Portal, Wiley Analytical Science, SciTech Daily, Phys Org, EurekAlert!, Zephyrnet.com, Science Daily, nanowerk, MIRAGE, NEWS BREAK, NIKKEI press release, Tech Eye, OPTRONICS ONLINE, Zaikei Shimbun, COSMOS, GALILEU, FREE NEWS, explicia, N+1, GUATE VISION, notimerica, and Notizie scientifiche)



46. Ultra-fast Electron Microscopic Imaging of Single Molecules with Direct Electron Detection Camera and Noise Reduction, J. Stuckner, T. Shimizu, K. Harano, E. Nakamura, M. Murayama, *Microsc. Microanal.* **26**, 667–675 (2020).

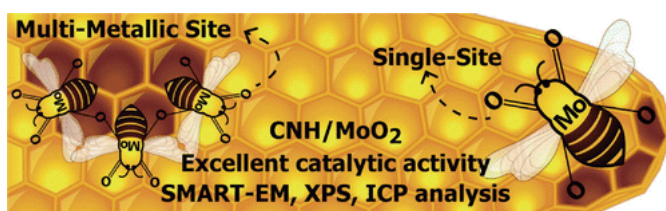


47. Aryl Radical Addition to Curvatures of Carbon Nanohorns for Single-molecule Level Molecular Imaging, K. Kamei, T. Shimizu, K. Harano, E. Nakamura, *Bull. Chem. Soc. Jpn.* DOI:10.1246/bcsj.20200232.



48. Synthesis and Characterization of a Well-Defined Carbon Nanohorn-Supported Molybdenum Dioxo Catalyst by SMART-EM Imaging. Surface Structure at the Atomic Level, Y. Kratish, T.

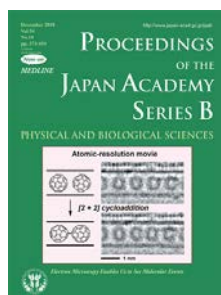
Nakamuro, Y. Liu, J. Li, I. Tomotsuka, K. Harano, E. Nakamura, T. Marks, *Bull. Chem. Soc. Jpn.* DOI:10.1246/bcsj.20200299



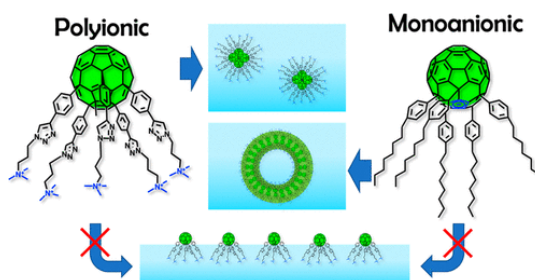
49. *SHROOM3*, The Gene Associated with Renal Functional Decline, Affects The Podocyte Structure, R. Matsuura, A. Hiraishi, L. Holzman, H. Hanayama, K. Harano, E. Nakamura, Y. Hamasaki, K. Doi, M. Nangaku, E. Noiri, *Sci. Rep.* in press.

Accounts/Reviews:

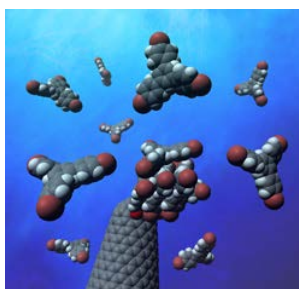
1. 結晶はどのようにしてできるか, 原野幸治, *化学と教育*, **63**, 384–387 (2015).
How to grow crystals in crystallization? K. Harano, *Kagaku to Kyoiku*, **63**, 384–387 (2015)
2. Chemical Kinetics Study through Observation of Individual Reaction Events with Atomic-Resolution Electron Microscopy, E. Nakamura, K. Harano, *Proc. Jpn. Acad., Ser. B* **94**, 428–440 (2018). (Selected as cover)



3. Interfacial Chemistry of Conical Fullerene Amphiphiles in Water, K. Harano, E. Nakamura, *Acc. Chem. Res.* **52**, 2090–2100 (2019).



4. Self-Assembly Mechanism in Prenucleation Processes of Molecular Crystalline Materials, K. Harano, *Bull. Chem. Soc. Jpn.* Advance Article, DOI:10.1246/bcsj.20200333 (Award Account).



General Reviews:

1. 外部刺激に応答して伸縮する配位高分子錯体, 原野幸治, *化学と工業*, **58**, 593 (2005).
Coordination polymer complexes showing stimuli-responsive stretching, K. Harano, *Kagaku to Kogyo (Tokyo, Japan)*, **58**, 593 (2005).
2. お茶のなかの分子世界, 原野幸治, *現代化学*, **556**, 42–45 (2017).
3. 原子分解能顕微鏡で化学反応機構を調べる！- 一体いくつの分子を調べればよいのだろうか -, 岡田 賢, 山内 薫, 原野幸治, 中村栄一, *化学*, **73(4)**, 12–16 (2018).
4. 化学反応を顕微鏡で追跡する時代が到来, 岡田 賢, 山内 薫, 原野幸治, 中村栄一, *現代化学*, **566**, 27–31 (2018).
5. 目に見えない微結晶の構造を解析する！ -マイクロ電子回折で三次元分子構造を決定, 原野幸治, 劉 東欣, 中室貴幸, 中村栄一, *化学*, **74(5)**, 49–53 (2019).
6. アスファルテン分子の可視化, 原野幸治, *日本エネルギー学会機関誌えねるみくす*, **98**, 676–682 (2019).
7. 単分子原子分解能実時間電子顕微鏡法による化学反応研究, 原野幸治, 中村栄一, *化学と工業*, **73**, 16-18 (2020).
8. 世界最高速の動画撮影でひもとく分子の世界-カメラは見た!分子が動く決定的瞬間, 清水俊樹, 原野幸治, 中村栄一, *化学*, **75(11)**, 12–16 (2020).

Books:

1. History and future prospect of π -electron research, K. Harano, E. Nakamura, *CSJ Current Review 12*, Kagaku Dojin, 20–24 (2013).
 π 電子研究の歴史と将来展望 (分担執筆), 原野幸治, 中村栄一, 未来材料を創出する π 電子系の化学 (CSJ カレントレビュー12), 化学同人, 20-24 (2013).
2. Conformational Analysis of Organic Molecules with Single-Molecule Atomic-Resolution Real-Time Transmission Electron Microscopy (SMART-TEM) Imaging, K. Harano, E. Nakamura, *Molecular Technology, Volume 4: Synthesis Innovation*, Wiley, 339-368 (2019).

Patents:

1. Preparation of fullerene derivatives by reacting fullerenes with silyl enol ether
E. Nakamura, H. Isobe, K. Harano, S. Mouri, Y. Nakamura
Jpn. Kokai Tokkyo Koho (2009) JP 2009185000 (特開 2009-185000)
2. Spherical water-dispersible amorphous particles and method for preparing same
E. Nakamura, K. Harano, N. Inakoshi, C. Liu
PCT Int. Appl. (2015) WO 2015137289
3. Preparation of silylfullerene derivative compound for semiconductor device, solar cell and solar cell module
E. Nakamura, U. Takeda, K. Harano, S. Aramaki
Jpn. Kokai Tokkyo Koho (2016) JP 2016210750 (特開 2016-210750)
4. Specifically shaped crystal of compound and method for producing same
J. Sukegawa, D. Araki, S. Suzuki, M. Minami, T. Onai, F. Wakita, C. Liu, E. Nakamura, K. Harano
PCT Int. Appl. (2020) WO 2020040233 (特願 2018-154760)

Invited Presentations:

1. 2005 Jun. 25, Symposium of Young Coordination Chemist's Association, Tokyo, Japan
2. 2006 Jun. 17, 1st Symposium on Grant-in-Aid for Scientific Research on Priority Area "Chemistry of Coordination Space" for Young Chemists, Osaka, Japan
3. 2007 Jun. 2, 24th Colloquium on Inorganic and Analytical Chemistry, Osaka, Japan
4. 2012 Feb. 20, Global COE lectureship at Tsinghua University, Beijing, China
5. 2012 Feb. 21, Global COE lectureship at Peking University, Beijing, China
6. 2012 Feb. 22, Global COE lectureship at Institute of Chemistry, Chinese Academy of Science, Beijing, China
7. 2012 Feb. 24, Global COE lectureship at Dalian University of Technology, Dalian, China
8. 2012 Feb. 28, Global COE lectureship at Xi'an Jiaotong University, Xi'an, China
9. 2012 Dec. 1, 6th International Symposium on Nanomedicine (ISNM2012), Matsue, Japan
10. 2013 Jun. 15, Japan-China young scientist symposium "Frontier of coordination chemistry at the interface of nano and micro", Okazaki, Japan
11. 2013 Jul. 7, Gordon Research Conference on Thin Film & Crystal Growth Mechanisms, Biddeford, USA
12. 2013 Nov. 7, 7th International Symposium on Nanomedicine (ISNM2013),

Kitakyushu, Japan

13. 2014 Feb. 21, The 1st CMS International Symposium –New Waves in Self-Assembly for Optical/Electronic Functions–, Fukuoka, Japan
14. 2014 May 17, The 2nd Japan-China Symposium on Nanomedicine, Hiroshima, Japan
15. 2014 Jun. 20, Joint Congress of Asian Crystallization Technology Symposium-2014 (ACTS-2014) and 11th International Workshop on Crystal Growth of Organic Materials CGOM (CGOM11), Nara, Japan
16. 2014 Dec. 5, 8th International Symposium on Nanomedicine (ISNM2014), Matsuyama, Japan
17. 2015 Jan. 29, Lecture at Kanagawa University, Hiratsuka, Japan
18. 2015 Jun. 6, The Third China-Japan Joint Symposium on Inorganic and Nanomaterial Science, Beijing, China
19. 2015 Sep. 25, iCeMS International Symposium “Hierarchical Dynamics in Soft Materials and Biological Matter”, Kyoto, Japan
20. 2015 Nov. 7, The 16th Daitokuba Physical Chemistry Seminar, Kusatsu, Japan
21. 2015 Dec. 10, Seminar, Heavy Oil Division, The Japan Institute of Energy, Tokyo, Japan
22. 2015 Dec. 11, The 5th Graphene Oxide Symposium, Okayama, Japan
23. 2016 Mar. 24, The 96th CSJ Annual meeting, Kyotanabe, Japan
24. 2016 Nov. 15, The 6th CSJ Chemistry Festa, Tokyo, Japan
25. 2016 Dec. 19, Special Lecture, Rikkyo University, Tokyo, Japan
26. 2017 Jan. 18, The Iron and Steel Institute of Japan, Tokyo, Japan
27. 2017 May 17, Intergroup Seminar, ETH Zürich, Zürich, Switzerland
28. 2017 May 19, Lecture, University of Zürich, Zürich, Switzerland
29. 2017 Jun. 24, Japan-China Joint Interdisciplinary Symposium on Coordination-based Hybrid Materials, Okazaki, Japan
30. 2017 Jul. 28, IRCCS Symposium for Young Scientists, Inuyama, Japan
31. 2017 Aug. 5, AIKOC-1, Nagoya, Japan
32. 2017 Sep. 6, 5th Forum for Young Scientists of Biological Chemistry, Tokyo, Japan
33. 2017 Oct. 19, The 7th CSJ Chemistry Festa, Tokyo, Japan
34. 2017 Nov. 17, The Japanese Society of Microscopy, Division of in situ Observation, Aichi, Japan
35. 2017 Dec. 5, Lecture of Polymer Science Chugoku and Shikoku Division 2017, Tottori, Japan
36. 2017 Dec. 9, Symposium for Young Coordination Chemists, Kumamoto, Japan

37. 2018 May 7, Kyushu University Nanotechnology Platform Seminar, Fukuoka, Japan
38. 2018 May 25, The China-Japan Workshop for Innovations in Molecular Science and Technology, Beijing, China
39. 2018 Nov. 10, The Japan Society of Vacuum and Surface Science, Kanto Tohoku Hokkaido Division Joint Seminar, Tokyo, Japan
40. 2018 Nov. 14, Chemistry Special Lecture, Tokyo University of Science, Japan
41. 2019 Feb. 8, PACCON 2019, Bangkok, Thailand
42. 2019 Feb. 11, CBC Seminar, Nanyang Technological University, Singapore
43. 2019 Feb. 21, The 43th Analysis Meeting of Osaka Industrial Research Association, Osaka, Japan
44. 2019 Mar. 8, International Symposium of Innovative Molecular Technology, Tokyo, Japan
45. 2019 Mar. 15, Users meeting of Bionet laboratory, Tokyo, Japan
46. 2019 May 11, Keio Organic Chemistry Symposium for Young Researchers, Yokohama, Japan
47. 2019 Jul. 26, ISNA-18, Sapporo Convention Center, Sapporo, Japan
48. 2019 Aug. 8, Open Campus Public Lecture, The University of Tokyo, Tokyo, Japan
49. 2019 Aug. 30, SCAN TECH 2019, Tokyo City University, Tokyo, Japan
50. 2019 Sep. 13, Department Lecture, Ibaraki University, Hitachi, Japan
51. 2019 Oct. 22, School of Physical Science and Technology Seminar, ShanghaiTech University, Shanghai, China
52. 2019 Oct. 23, Department Lecture, Fudan University, Shanghai, China
53. 2019 Oct. 31, Programming Hierarchical Molecular Assemblies, Meiji University, Tokyo, Japan
54. 2019 Dec. 7, Symposium for Young Coordination Chemists, Kanazawa, Japan
55. 2020 Mar. 24, The 100th CSJ Annual meeting, Noda, Japan
56. 2020 Jul. 10, Pre-symposium of Japan Society of Coordination Chemistry, Japan
57. 2020 Dec. 2, Catalysis Society of Japan, Hokkaido Branch Seminar, online (confirmed)
58. 2020 Dec. 8, MRM Forum, online (confirmed)