

# CURROCULUM VITAE (13 May, 2024)

## Kazuaki Ishihara

Graduate School of Engineering, Nagoya University  
B2-3(611) Furo-cho, Chikusa, Nagoya 464-8603, Japan  
Phone: +81-52-789-3331  
Fax: +81-52-789-3222  
E-mail: ishihara@cc.nagoya-u.ac.jp



### BIRTH

Born at Aichi Prefecture, Japan on April 26, 1963.

### EDUCATION

1982–1986: Bachelor of Engineering (under the supervision of Professor Hisashi Yamamoto), Department of Applied Chemistry, School of Engineering, Nagoya University  
1986–1988: Master of Engineering (under the supervision of Professor Hisashi Yamamoto), Department of Applied Chemistry, Graduate School of Engineering, Nagoya University  
1988–1991: Doctor of Engineering (under the supervision of Professor Hisashi Yamamoto), Department of Applied Chemistry, Graduate School of Engineering, Nagoya University  
Thesis Title: “Studies on Stereoselective Reactions of Acetals”  
[Visiting scholar under the supervision of Professor Clayton H. Heathcock at Department of Chemistry, University of Berkeley, California, USA for three months in 1987.]

### POSITIONS HELD

1991–1992 Postdoctoral Fellow under the supervision of Professor E. J. Corey at Department of Chemistry, Harvard University, Cambridge, Massachusetts, USA  
1992–1994 Assistant Professor, Department of Applied Chemistry, Graduate School of Engineering, Nagoya University, Japan  
1994–1997 Assistant Professor, Department of Biotechnology, Graduate School of Engineering, Nagoya University, Japan  
1997–2001 Associate Professor, Research Center of Waste and Emission Management, Nagoya University, Japan  
2001–2002 Associate Professor, Department of Biotechnology, Graduate School of Engineering, Nagoya University, Japan  
2002–present Full Professor, Department of Biotechnology, Graduate School of Engineering, Nagoya University, Japan

### HONORS & AWARDS

- (1) JSPS Fellowship for Japanese Junior Scientists, 1988–1991
- (2) Yamada Science Foundation Fellowship for Studying Abroad, 1991–1992
- (3) The 10<sup>th</sup> Inoue Research Award for Young Scientists, 1994 (The Inoue Foundation for Science)  
“Studies on stereoselective reactions of acetals”
- (4) The 45<sup>th</sup> Young Chemist Award from the Chemical Society of Japan, 1996 (The Chemical Society of Japan)

- “Development of high stereocontroller system of organic reactions using Brønsted acid–Lewis acid complexes”
- (5) Thieme Chemistry Journal Award, 2001 (Honorary One Year Subscription to *Synlett*)
- (6) The 2<sup>nd</sup> Green & Sustainable Chemistry Award from the Minister of Education, Culture, Sports, Science and Technology, 2003 (The Green & Sustainable Chemistry Network, Japan)  
“Highly efficient organic syntheses using environmentally benign catalysts”
- (7) The 1<sup>st</sup> JSPS Prize, 2005 (Japan Society for the Promotion of Science)  
“Development of Artificial Small-molecule Green Catalysts”
- (8) BCSJ Award, 2005 (Bulletin of the Chemical Society of Japan)  
“Facile Synthesis of Aryl- and Alkyl-bis(trifluoromethylsulfonyl)methanes”
- (9) Asian Core Program Lectureship Award (from Coordinator (Taiwan), March 10, 2006)  
“Rational Design of Small-molecule Artificial Enzymes Based on Acid-Base Combined Chemistry”  
0<sup>th</sup> International Conference on Cutting-Edge Organic Chemistry in Asia , Nagoya Conference Hall, Nagoya University, Nagoya, Japan; JSPS Asian Core Program; March 8–12, 2006.
- (10) Asian Core Program Lectureship Award (from Coordinator (Korea), March 10, 2006)  
“Rational Design of Small-molecule Artificial Enzymes Based on Acid-Base Combined Chemistry”  
0<sup>th</sup> International Conference on Cutting-Edge Organic Chemistry in Asia, Nagoya Conference Hall, Nagoya University, Nagoya, Japan; JSPS Asian Core Program; March 8–12, 2006.
- (11) Japan/UK GSC Symposium Lectureship in Japan/UK Green Sustainable Chemistry Symposium, Kansai University, Osaka; March 27, 2007 (The Chemical Society of Japan)  
“Design of dehydrative condensation catalysts based on acid–base combination chemistry”
- (12) The 21<sup>st</sup> Japan IBM Science Prize, 2007 (IBM)  
“Design of highly functional catalysts based on acid–base combination chemistry directed towards environmentally benign organic reactions”
- (13) Asian Core Program Lectureship Award (from Coordinator (Hong Kong), October 22, 2008)  
“2-Iodoxybenzenesulfonic acid (IBS) as an extremely active catalyst for the oxidation of alcohols to aldehydes, ketones, and carboxylic acids with oxone®”  
3rd International Conference on Cutting-Edge Organic Chemistry in Asia, Liuying Hotel, Hangzhou, China, October 19–23, 2008.
- (14) The 5<sup>th</sup> Mukaiyama Award (administered by the Society of Synthetic Organic Chemistry, Japan) (October 16, 2009)  
“The rational design of highly functional acid–base combined catalysts”
- (15) The 27th Inoue Prize for Science, 2011  
“Design of highly functional dynamic complex catalysts based on acid-base combination chemistry”
- (16) Fellow of the Royal Society of Chemistry (January 11, 2013)
- (17) SSOCJ Daiichi-Sankyo Award for Medicinal Organic Chemistry 2012 (The Society of Synthetic Organic Chemistry, Japan, February 19, 2013)  
“Development of Selective Organic Transformation Reactions Induced by Hypervalent Iodine Catalysts”
- (18) The Yazaki Academic Award (Yazaki Memorial Foundationn for Science & Technology, March 7, 2013)
- (19) The Ichimura Prize (The New Technology Development Foundation, April 25, 2013)
- (20) 2013–2014 AbbVie Lectureship in Organic Chemistry (Host: Professor Scott Denmark, University of Illinois at Urbana-Champaign) (September, 25, 2014)

- (21) The 2014/2015 Pacific Rim Frontiers in Chemistry Lectureship (Host: Professor Dennis Hall, University of Alberta) (2015)
- (22) Asian Core Program Lectureship Award (from Coordinator (Hong Kong), December 4, 2014) OP-21 “Catalytic enantioselective cyclization reaction to construct chroman skeletons,” The 9th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-9)/The 5<sup>th</sup> New Phase International Conference on Cutting-Edge Organic Chemistry in Asia (NICCEOCA-5), Eastin Hotel Petaling Jaya, Malaysia. December 1–4, 2014.
- (22) Asian Core Program Lectureship Award (from Coordinator (Taiwan), December 4, 2014) OP-21 “Catalytic enantioselective cyclization reaction to construct chroman skeletons,” The 9th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-9)/The 5<sup>th</sup> New Phase International Conference on Cutting-Edge Organic Chemistry in Asia (NICCEOCA-5), Eastin Hotel Petaling Jaya, Malaysia. December 1–4, 2014.
- (23) The SIS Award 2015 (from the Society of Iodine Science, September 15, 2015)
- (24) Synthetic Organic Chemistry Award, Japan (The Society of Synthetic Organic Chemistry (SSOCJ), Japan, February 18, 2016)
- (25) Asian Core Program / Advanced Research Network Lectureship Award (from Coordinator (Korea), October 30, 2016)  
PO-C15 “Enantioselective Carbon–Carbon Bond Formation Reactions Induced by Chiral BINSA-Derived Brønsted Acid Catalysts,” ACP-2016-Korea (The 11th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-11) & The 2nd Advanced Research Network on Cutting-Edge Organic Chemistry in Asia (ARNCEOCA-2), Fusion Hall, KI Institute (KAIST), Daejeon, Korea. October 27–30, 2016.
- (26) Prize for Science and Technology (Research Category) in the Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology, April 19, 2017.
- (27) Asian Core Program / Advanced Research Network Lectureship Award (from Coordinator (Hong Kong), November 5, 2017)  
PO-B19 “Enantioselective Hydrocyanation of Ketones and α,β-Unsaturated N-Acylpyrroles Catalyzed by Chiral Lithium(I) Phosphoryl Phenoxide,” ACP-2017-China (The 12th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-12) & The 3rd Advanced Research Network on Cutting-Edge Organic Chemistry in Asia (ARNCEOCA-3), Xi'an, China. November 2–5, 2017.
- (28) JSPC Award for Excellence (The Japanese Society for Process Chemistry)  
Yushi Tabata, Manabu Hatano, and Kazuaki Ishihara\*  
“Transesterification Reaction highly Active Catalyzed by Quaternary Ammonium Salts”  
Dec. 8, 2017、The Winter Symposium of JSPC 2017 (Nagasaki Brick Hall)
- (29) CSJ Award 2017 (The Chemical Society of Japan)  
“Rational Design of High Performance Acid–Base Combined Catalysts”  
March 21, 2018
- (30) Case #00343186: CAS REGISTRY® Innovators Program Certificate  
Our publication, “Structure and Reactivity of Aromatic Radical Cations Generated by FeCl<sub>3</sub>” lead to the identification of 21 novel compounds, each resulting in the addition of a unique CAS Registry Number® to the CAS content collection. September 28, 2020.
- (31) Chemistry Leader Award 2023 (The 2023 Edition of our Ranking of Top Scientists in the field of Chemistry that [Research.com](https://research.com/scientists-rankings/chemistry) released at <https://research.com/scientists-rankings/chemistry> where Kazuaki Ishihara ranked 1652 in the world and 93 in Japan. He has also been recognized with our Chemistry Leader Award for 2023.)
- (32) The SCS (Swiss Chemical Society) Lectureship 2024 (Tour dates: April 8-12, 2024)

## **EDITORIAL ADVIISORY BOARD**

- (1) 2007– Editorial Advisory Board of “**Letters in Organic Chemistry**”, Bentham Science Publishers Ltd., U.A.E.  
<http://www.bentham.org/loc/index.htm>
- (2) 2021–2024 Editorial Board of “**Asian Journal of Organic Chemistry**”, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim.  
<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%292193-5815>
- (3) 2014– The board of Series Editors of “**Topics in Current Chemistry**”, Springer-Verlag GmbH, Heidelberg, Germany  
<http://link.springer.com/bookseries/128>

## **PRINCIPLE AREAS OF RESEARCH**

- 1981–1991 Studies on stereoselective reactions of chiral acetals  
1991–1992 Design of asymmetric Diels–Alder catalysts  
1992– Design of chiral Brønsted acid–Lewis acid combined catalysts  
1995– Design of superacids  
1996– Design of dehydrative condensation catalysts  
1999– Design of artificial cyclases for synthesizing optically active polycyclic terpenoids  
2000– Design of recoverable and reusable catalysts  
2002– Design of acid–base combined catalysts  
2007– Design of hypervalent iodine catalysts  
2009– Design of supramolecular acid–base combined catalysts
- His current research is the development of catalytic organic reactions and processes directed towards green chemistry.

**288 Original papers**

**139 Review articles**

**87 Patent applications**

**393 Lectures**

## **Representative Papers**

- (1) “Direct condensation of carboxylic acids with alcohols catalyzed by hafnium(IV) salts”

Kazuaki Ishihara, Suguru Ohara, Hisashi Yamamoto

*Science* **2000**, 290(5494), 1140–1142. DOI: 10.1126/science.290.5494.1140 (Nov. 10)

- (2) “Enantioselective halocyclization of polyprenoids induced by nucleophilic phosphoramidites”

Akira Sakakura, Atsushi Ukai, Kazuaki Ishihara

*Nature* **2007**, 455(7130), 900–903. DOI: 10.1038/nature05553 (Feb. 22)

- (3) “Quaternary ammonium (hypo)iodite catalysis for enantioselective oxidative cycloetherification”

Muhammet Uyanik, Hiroaki Okamoto, Takeshi Yasui, Kazuaki Ishihara

*Science* **2010**, 328(5984), 1376–1379. DOI: 10.1126/science.1188217 (Jun. 11)

- (4) “High-turnover hypoidite catalysis for asymmetric synthesis of tocopherols”

Muhammet Uyanik, Hiroki Hayashi, Kazuaki Ishihara

*Science* **2014**, 345(6194), 291–294. DOI: 10.1126/science.1254976 (July 18).

- (5) “Chemoselective oxidative generation of *ortho*-quinone methides and tandem transformations”

Muhammet Uyanik, Kohei Nishioka, Ryutaro Kondo, Kazuaki Ishihara\*

*Nat. Chem.* **2020**, *12*(4), 353–362.

(6) “Hypoiodite-catalyzed oxidative umpolung of indoles for enantioselective dearomatization”

Hiroki Tanaka, Naoya Ukegawa, Muhammet Uyanik,\* Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2022**, *144*(13), 5756–5761.

## Book

- (1) *Acid Catalysis in Modern Organic Synthesis*, Vols. 1, 2, Hisashi Yamamoto, Kazuaki Ishihara Eds.; Wiley–VCH Verlag, GmbH & Co. KGaA, Weinheim, 2008.
- (2) Iodine Catalysis in Organic Synthesis, Kazuaki Ishihara, Kilian Muñiz, Wiley-VCH: Weinheim, 2022 (432 pages), ISBN 9783527348299

## Google Scholar (13th May, 2024)

Total number of citation 26891

h-index 89

i10-index 322

(<https://scholar.google.co.jp/citations?user=FmkXDVUAAAAJ&hl=ja>)

**Communications and full papers**

- (1) "Reductive cleavages of  $\alpha,\beta$ -alkynyl acetals. New route to optically pure propargylic alcohols"  
Kazuaki Ishihara, Atsunori Mori, Isao Arai, Hisashi Yamamoto  
*Tetrahedron Lett.* **1986**, 27(4), 983–986. DOI: 10.1016/S0040-4039(00)84155-6
- (2) "Reductive cleavages of chiral acetals using Lewis acid-hydride system"  
Atsunori Mori, Kazuaki Ishihara, Hisashi Yamamoto  
*Tetrahedron Lett.* **1986**, 27(8), 987–990. DOI: 10.1016/S0040-4039(00)84156-8
- (3) "Reductive cleavages of homochiral acetals: Inversion of the stereochemistry"  
Atsunori Mori, Kazuaki Ishihara, Isao Arai, Hisashi Yamamoto  
*Tetrahedron* **1987**, 43(4), 755–764. DOI: 10.1016/S0040-4020(01)90009-2
- (4) "Stereoselective reduction of bicyclic acetals. A method for reductive generation of heterocyclic ring systems"  
Kazuaki Ishihara, Atsunori Mori, Hisashi Yamamoto  
*Tetrahedron Lett.* **1987**, 28(52), 6613–6616. DOI: 10.1016/S0040-4039(00)96927-2
- (5) "Diastereoselective aldol synthesis using acetal templates"  
Kazuaki Ishihara, Hisashi Yamamoto, Clayton H. Heathcock  
*Tetrahedron Lett.* **1989**, 30(14), 1825–1828. DOI: 10.1016/S0040-4039(00)99590-X
- (6) "Chiral aryl Grignard reagents-generation and reactions with carbonyl compounds"  
Makoto Kaino, Kazuaki Ishihara, Hisashi Yamamoto  
*Bull. Chem. Soc. Jpn.* **1989**, 62(11), 3736–3738. DOI: 10.1246/bcsj.62.3736 (Nov.)
- (7) "Acyclic Stereoselection 50. New stereoselective propanal/propanic acid synthons for aldol reactions"  
Ichiro Mori, Kazuaki Ishihara, Clayton H. Heathcock  
*J. Org. Chem.* **1990**, 55(3), 1114–1117. DOI: 10.1021/jo00290a060 (Feb. 2)
- (8) "Stereoselective reduction of bicyclic acetals. A method for reductive generation of heterocyclic ring systems"  
Kazuaki Ishihara, Atsunori Mori, Hisashi Yamamoto  
*Tetrahedron* **1990**, 46(13–14), 4595–4612. DOI: 10.1016/S0040-4020(01)85584-8
- (9) "Stereospecific Cyclization of vinyl ether alcohols. Facile synthesis of (–)-lardolure"  
Makoto Kaino, Yuji Naruse, Kazuaki Ishihara, Hisashi Yamamoto  
*J. Org. Chem.* **1990**, 55(23), 5814–5815. DOI: 10.1021/jo00310a007 (Nov. 9)
- (10) "Acyclic Stereoselection 52. On the mechanism of Lewis acid-mediated nucleophilic substitution reactions of acetals"  
Ichiro Mori, Kazuaki Ishihara, Lee A. Flippin, Kyoko Nozaki, Hisashi Yamamoto, Paul A. Bartlett, Clayton H. Heathcock  
*J. Org. Chem.* **1990**, 55(25), 6107–6115. DOI: 10.1021/jo00312a015 (Dec. 7)
- (11) "Highly selective acetal cleavage using new organoaluminum reagents"  
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1991**, 113(18), 7074–7075. DOI: 10.1021/ja00018a075 (Aug. 28)
- (12) "Highly enantioselective catalytic Diels-Alder addition promoted by a chiral bis(oxazoline)-magnesium complex"  
E. J. Corey, Kazuaki Ishihara  
*Tetrahedron Lett.* **1992**, 33(45), 6807–6810. DOI: 10.1016/S0040-4039(00)61781-1 (Nov. 3)
- (13) "Reductive cleavage of chiral acetals using new aluminum catalyst"  
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto  
*Synlett* **1993**, (2), 127–129. DOI: 10.1055/s-1993-22373 (Feb.)
- (14) "An extremely simple, convenient, and selective method for acetylating primary alcohols"  
Kazuaki Ishihara, Hideki Kurihara, Hisashi Yamamoto  
*J. Org. Chem.* **1993**, 58(15), 3791–3793. DOI: 10.1021/jo00067a005 (Jul 16)
- (15) "Tris(pentafluorophenyl)boron as a new efficient, air stable, and water tolerant catalyst in the aldol-type and Michael reactions"  
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto  
*Synlett* **1993**, (8), 577–579. DOI: 10.1055/s-1993-22535 (Aug.)
- (16) "Mechanistic studies of a CAB-catalyzed asymmetric Diels-Alder reaction"  
Kazuaki Ishihara, Qingzhi Gao, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1993**, 115(22), 10412–10413. DOI: 10.1021/ja00075a0088 (Nov. 3)

- (17) "Catalytic asymmetric aldol-type reactions using a chiral (acyloxy)borane complex"  
Kazuaki Ishihara, Tohru Maruyama, Makoto Mouri, Qingzhi Gao, Kyoji Furuta, Hisashi Yamamoto  
*Bull. Chem. Soc. Jpn.* **1993**, 66(11), 3483–3491. **DOI:** 10.1246/bcsj.66.3483 (Nov.)
- (18) "Highly diastereoselective acetal cleavages using novel reagents prepared from organoaluminum and pentafluorophenol"  
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1993**, 115(23), 10695–10704. **DOI:** 10.1021/ja00076a030 (Nov. 17)
- (19) "Enantioselective Diels-Alder reaction of  $\alpha$ -bromo- $\alpha,\beta$ -enals with dienes under catalysis by CAB"  
Kazuaki Ishihara, Qingzhi Gao, Hisashi Yamamoto  
*J. Org. Chem.* **1993**, 58(24), 6917–6919. **DOI:** 10.1021/jo00076a070 (Nov. 19)
- (20) "Catalytic asymmetric allylation using a chiral (acyloxy)borane complex as a versatile Lewis acid catalyst"  
Kazuaki Ishihara, Makoto Mouri, Qingzhi Gao, Tohru Maruyama, Kyoji Furuta, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1993**, 115(24), 11490–11495. **DOI:** 10.1021/ja00077a054 (Dec. 1)
- (21) "Catalytic enantioselective Diels-Alder reactions using titanium complexes of cis-N-sulfonyl-2-amino-1-indanols"  
E. J. Corey, T. D. Roper, Kazuaki Ishihara, G. Sarakinos  
*Tetrahedron Lett.* **1993**, 34(52), 8399–8402. **DOI:** 10.1016/S0040-4039(00)61343-6 (Dec. 24)
- (22) "Asymmetric hetero Diels-Alder reaction catalyzed by stable and easily prepared CAB catalysts"  
Qingzhi Gao, Kazuaki Ishihara, Tohru Maruyama, Makoto Mouri, Hisashi Yamamoto  
*Tetrahedron* **1994**, 50(4), 979–988 (Jan. 24), and **1994**, 50(15), 4555–4555. **DOI:** 10.1021/ja00083a048 (April. 11)
- (23) "Brønsted acid-assisted chiral Lewis acid (BLA) catalyst for asymmetric Diels-Alder reaction"  
Kazuaki Ishihara, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1994**, 116(4), 1561–1562. **DOI:** 10.1021/ja00083a048 (Feb. 23)
- (24) "First application of hydrogen bonding interactions to the design of asymmetric acylation of meso-diols with optically active acyl halides"  
Kazuaki Ishihara, Manabu Kubota, Hisashi Yamamoto  
*Synlett* **1994**, (8), 611–614. **DOI:** 10.1055/s-1994-22945 (Aug.)
- (25) "Tris(pentafluorophenyl)boron as an efficient catalyst in the aldol-type reaction of ketene silyl acetals with imines"  
Kazuaki Ishihara, Miyuki Funahashi, Naoyuki Hanaki, Mayumi Miyata, Hisashi Yamamoto  
*Synlett* **1994**, (11), 963–964. **DOI:** 10.1055/s-1994-23065 (Nov.)
- (26) "A new chiral promoter for asymmetric aza Diels-Alder and aldol-type reactions of imines"  
Kazuaki Ishihara, Mayumi Miyata, Kouji Hattori, Hisashi Yamamoto, Toshiji Tada  
*J. Am. Chem. Soc.* **1994**, 116(23), 10520–10524. **DOI:** 10.1021/ja00192a019 (Nov. 16)
- (27) "Lewis acid assisted chiral Brønsted acid (LBA) for enantioselective protonation of silyl enol ethers and ketene bis(trialkylsilyl) acetals"  
Kazuaki Ishihara, Masanobu Kaneeda, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1994**, 116(24), 11179–11180. **DOI:** 10.1021/ja00103a052 (Nov. 30)
- (28) "A concise synthesis of (+)-(S)-dihydroperiphylline"  
Kazuaki Ishihara, Yoshichika Kuroki, Hisashi Yamamoto  
*Synlett* **1995**, (1), 41–42. **DOI:** 10.1055/s-1995-4855 (Jan.)
- (29) "Scandium trifluoromethanesulfonate as an extremely acylation catalyst"  
Kazuaki Ishihara, Manabu Kubota, Hideki Kurihara, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1995**, 117(15), 4413–4414. **DOI:** 10.1021/ja00120a030 (Apr. 19)
- (30) "Highly regio- and stereo-selective annulation-elimination reaction of 1-cycloalkenyl 3-hydroxypropyl ethers: A novel approach to 2-substituted  $\delta$ -lactones, macrocyclic oxolactones, and bicyclic hydroxyethers"  
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto  
*J. Chem. Soc., Chem. Commun.* **1995**, (11), 1117–1118. **DOI:** 10.1039/c39950001117 (Jun. 7)
- (31) "Tris(pentafluorophenyl)boron as an efficient, air stable, and water tolerant Lewis acid catalyst"  
Kazuaki Ishihara, Naoyuki Hanaki, Miyuki Funahashi, Mayumi Miyata, Hisashi Yamamoto  
*Bull. Chem. Soc. Jpn.* **1995**, 68(6), 1721–1730. **DOI:** 10.1246/bcsj.68.1721 (Jan. 27)
- (32) "Tris(pentafluorophenyl)boron as an efficient catalyst in the stereoselective rearrangement of epoxides"  
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto

*Synlett* **1995**, (7), 721–722. DOI: 10.1055/s-1995-5049 (Jul.)

(33) “Stereospecific annulation of hydroxy vinyl ethers. Synthetic application to polyfunctionalized cyclic compounds”

Naoyuki Hanaki, Kazuaki Ishihara, Makoto Kaino, Yuji Naruse, Hisashi Yamamoto

*Tetrahedron* **1996**, 52(21), 7297–7320. DOI: 10.1016/0040-4020(96)00253-0 (May 20)

(34) “Antimony-templated macrolactamization of tetraamino esters. Facile synthesis of macrocyclic alkaloids, ( $\pm$ )-Buchnerine, ( $\pm$ )-Verbacine, ( $\pm$ )-Verbascine, ( $\pm$ )-Verbascenine

Kazuaki Ishihara, Yoshichika Kuroki, Naoyuki Hanaki, Suguru Ohara, Hisashi Yamamoto

*J. Am. Chem. Soc.* **1996**, 118(6), 1569–1570. DOI: 10.1021/JA953541A (Feb. 14)

(35) “Enantioselective protonation of ketene bis(trimethylsilyl) acetals derived from  $\alpha$ -aryl- $\alpha$ -haloacetic acids using LBA”

Kazuaki Ishihara, Shingo Nakamura, Hisashi Yamamoto

*Croat. Chem. Acta* **1996**, 69(2), 513–517 (*Surprise Festschrift in Honour of Professor Vladimir Prelog*). (Apr.)

(36) “A new powerful and practical BLA catalyst for highly enantioselective Diels-Alder reaction: An extreme acceleration of reaction rate by Brønsted acid

Kazuaki Ishihara, Hideki Kurihara, Hisashi Yamamoto

*J. Am. Chem. Soc.* **1996**, 118(12), 3049–3050. DOI: 10.1021/JA954060U (Mar. 27)

(37) “Scandium trifluoromethanesulfonate as an extremely active Lewis acid catalyst in Mukaiyama esterification system”

Kazuaki Ishihara, Manabu Kubota, Hideki Kurihara, Hisashi Yamamoto

*J. Org. Chem.* **1996**, 61(14), 4560–4567. DOI: 10.1021/JO952237X (Jul. 12)

(38) “A new scandium complex as an extremely active acylation catalyst”

Kazuaki Ishihara, Manabu Kubota, Hisashi Yamamoto

*Synlett* **1996**, (3), 265–266. DOI: 10.1055/s-1996-5376 (Mar.)

(39) “3,4,5-Trifluorobenzeneboronic acid as an extremely active amidation catalyst”

Kazuaki Ishihara, Suguru Ohara, Hisashi Yamamoto

*J. Org. Chem.* **1996**, 61(13), 4196–4197. DOI: 10.1021/JO9606564 (Jun. 28)

(40) “Scandium trifluoromethanesulfonimide and scandium trifluoromethanesulfonate as extremely active acetalization catalysts”

Kazuaki Ishihara, Yoshinori Karumi, Manabu Kubota, Hisashi Yamamoto

*Synlett* **1996**, (9), 839–841. DOI: 10.1055/s-1996-5594 (Sep.)

(41) “Practical synthesis of  $\alpha$ -tocopherol. Trifluoromethanesulfonimide as an extremely active Brønsted acid catalyst for the condensation of trimethylhydroquinone with isophytol”

Kazuaki Ishihara, Manabu Kubota, Hisashi Yamamoto

*Synlett* **1996**, (11), 1045–1046 (Nov.)

(42) “First example of a highly enantioselective catalytic protonation of silyl enol ethers using a novel LBA system”

Kazuaki Ishihara, Shingo Nakamura, Masanobu Kaneeda, Hisashi Yamamoto

*J. Am. Chem. Soc.* **1996**, 118(50), 12854–12855. DOI: 10.1021/JA962414R (Dec. 18)

(43) “First enantioselective catalytic Diels–Alder reaction of dienes and acetylenic aldehydes: Experimental and theoretical evidence for the predominance of exo-transitiion structure”

Kazuaki Ishihara, Shoichi Kondo, Hideki Kurihara, Hisashi Yamamoto, Shigenori Ohashi, Satoshi Inagaki

*J. Org. Chem.* **1997**, 62(10), 3026–3027. DOI: 10.1021/JO970171V (May 16)

(44) “Diarylborinic acids as efficient catalysts for selective dehydration of aldols”

Kazuaki Ishihara, Hideki Kurihara, Hisashi Yamamoto

*Synlett*, **1997**, (5), 597–599. DOI: 10.1055/s-1997-3207 (May)

(45) “First enantioselective protonation of prochiral allyltrimethyltins using LBA”

Kazuaki Ishihara, Yuji Ishida, Shingo Nakamura, Hisashi Yamamoto

*Synlett* **1997**, (7), 758–760. DOI: 10.1055/s-1997-5758 (Jul)

(46) “Bis(pentafluorophenyl)borinic acid as a highly effective Oppenauer oxidation catalyst for allylic and benzylic alcohols”

Kazuaki Ishihara, Hideki Kurihara, Hisashi Yamamoto

*J. Org. Chem.* **1997**, 62(17), 5664–5665. DOI: 10.1021/JO970959D (Aug. 22)

- (47) "Metal-templated macrolactamization of triamino and tetramino esters. Facile synthesis of macrocyclic spermidine and spermine alkaloids, (S)-(+)-Dihydroperiphylline, ( $\pm$ )-Buchnerine, ( $\pm$ )-Verbaccine, ( $\pm$ )-Verbaskine, and ( $\pm$ )-Verbascenine"  
 Yoshichika Kuroki, Kazuaki Ishihara, Naoyuki Hanaki, Suguru Ohara, Hisashi Yamamoto  
*Bull. Chem. Soc. Jpn.* **1998**, 71(5), 1221–1230. DOI: 10.1246/dcsj.71.1221 (May)
- (48) "Synthesis of  $C_3$  symmetric, optically active triamidoamine and protetraazaphosphatrane"  
 Kazuaki Ishihara, Yoshinori Karumi, Shoichi Kondo, Hisashi Yamamoto  
*J. Org. Chem.* **1998**, 63(16), 5692–5695. DOI: 10.1021/JO9804689 (Aug. 7)
- (49) "Design of Brønsted acid-assisted chiral Lewis acid (BLA) catalysts for highly enantioselective Diels–Alder reactions"  
 Kazuaki Ishihara, Hideki Kurihara, Masayuki Matsumoto, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1998**, 120(28), 6920–6930. DOI: 10.1021/JA9810282 (Jul. 22)
- (50) "Highly regio- and stereoselective isomerization of silyl enol ethers catalyzed by LBA. A remarkable enantiomer discrimination of chiral LBA"  
 Kazuaki Ishihara, Hiroko Nakamura, Shingo Nakamura, Hisashi Yamamoto  
*J. Org. Chem.* **1998**, 63(19), 6444–6445. DOI: 10.1021/JO9812936 (Sep. 18)
- (51) "Rational design of a new chiral Lewis acid catalyst for enantioselective Diels–Alder reaction: Optically active 2-dichloroboryl-1,1'-binaphthyl"  
 Kazuaki Ishihara, Kazato Inanaga, Shoichi Kondo, Miyuki Funahashi, Hisashi Yamamoto  
*Synlett* **1998**, (10), 1053–1056. DOI: 10.1055/s-1998-1860 (Oct.)
- (52) "The first enantioselective biomimetic cyclization of polyprenoids"  
 Kazuaki Ishihara, Shingo Nakamura, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1999**, 121(29), 4906–4907. DOI: 10.1021/JA984064+ (May 26)
- (53) "A new and extremely active Corey's chiral oxazaborolidine catalyst"  
 Kazuaki Ishihara, Shoichi Kondo, Hisashi Yamamoto  
*Synlett* **1999**, (8), 1283–1285. DOI: 10.1055/s-1000-2804 (Aug.)
- (54) "Chiral SEM ether–tin tetrachloride as an enantioselective hydroxymethylating reagent for silyl enol ethers:  $\gamma$ -Effect of silicon"  
 Kazuaki Ishihara, Hiroko Nakamura, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **1999**, 121(33), 7720–7721. DOI: 10.1021/ja9916613 (Aug. 25)
- (55) "Homogeneous debenzylation using extremely active catalysts: tris(triflyl)methane, scandium(III) tris(triflyl)methide, and copper(II) tris(triflyl)methide"  
 Kazuaki Ishihara, Yukihiro Hiraiwa, Hisashi Yamamoto  
*Synlett* **2000**, (1), 80–82. DOI: 10.1055/s-2000-6436 (Jan.)
- (56) "Direct polycondensation of carboxylic acids and amines catalyzed by 3,4,5-trifluorophenylboronic acid"  
 Kazuaki Ishihara, Suguru Ohara, Hisashi Yamamoto  
*Macromolecules* **2000**, 33(10), 3511–3513. DOI: 10.1021/ma000085o (May 16)
- (57) "Enantioselective protonation of silyl enol ethers with Lewis acid-assisted chiral Brønsted acids: Reaction scope and mechanistic insights"  
 Shingo Nakamura, Masanobu Kaneeda, Kazuaki Ishihara, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **2000**, 122(34), 8120–8130. DOI: 10.1021/ja001164i (Aug. 30)
- (58) "Enantioselective biomimetic cyclization of isoprenoids using Lewis acid-assisted chiral Brønsted acids: Abnormal Claisen rearrangements and successive cyclizations"  
 Shingo Nakamura, Kazuaki Ishihara, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **2000**, 122(34), 8131–8140. DOI: 10.1021/ja001165a (Aug. 30)
- (59) "Pyrolysis of benzenediazonium bis(trifluoromethanesulfonyl)methide"  
 Kazuaki Ishihara, Aiko Hasegawa, Hisashi Yamamoto  
*J. Fluorine Chem.* **2000**, 106(2), 139–141. DOI: 10.1016/S0022-1139(00)00318-3 (Oct. 30)
- (60) "Chiral SEM ether–tin tetrachloride as an enantioselective hydroxymethylating reagent for trisubstituted alkenes"  
 Kazuaki Ishihara, Hiroko Nakamura, and Hisashi Yamamoto  
*Synlett* **2000**, (9), 1245–1248. DOI: 10.1055/s-2000-7130 (Sep.)

- (61) "Removal of palladium(II) from aqueous and organic solutions by polystyrene-bound trimercaptotriazine"  
 Kazuaki Ishihara, Masaya Nakayama, Hideki Kurihara, Akihide Itoh, Hiroki Haraguchi  
*Chem. Lett.* **2000**, (10), 1218–1219. **DOI:** 10.1246/cl.2000.1218 (Oct.)
- (62) "Direct condensation of carboxylic acids with alcohols catalyzed by hafnium(IV) salts"  
 Kazuaki Ishihara, Suguru Ohara, Hisashi Yamamoto  
*Science* **2000**, 290(5494), 1140–1142. **DOI:** 10.1126/science.290.5494.1140 (Nov. 10)
- (63) "Scope and limitations of chiral *B*-[3,5-bis(trifluoromethyl)phenyl]oxazaborolidine catalyst for use in the Mukaiyama aldol reaction  
 Kazuaki Ishihara, Shoichi Kondo, Hisashi Yamamoto  
*J. Org. Chem.* **2000**, 65(26), 9125–9128. **DOI:** 10.1021/jo001271v (Dec. 29)
- (64) "Enantioselective biomimetic cyclization of homo(polypropenyl)arenes. A new entry to (+)-podocarpa-8,11,13-triene diterpenoids and (−)-tetracyclic polypropenoid of sedimentary origin"  
 Kazuaki Ishihara, Hideaki Ishibashi, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **2001**, 123(7), 1505–1506. **DOI:** 10.1021/ja003541x (Feb. 21)
- (65) "Design of multinuclear chiral organoaluminum complexes with (*R*)-binaphthol derivatives"  
 Kazuaki Ishihara, Jun Kobayashi, Kazato Inanaga, Hisashi Yamamoto  
*Synlett* **2001**, (3), 394–396. **DOI:** 10.1055/s-2001-11392 (Mar.)
- (66) "Asymmetric synthesis of (*R*)-limonene and (*S*)-cembrene-A by an intramolecular cyclization reaction using a chiral leaving group"  
 Kazuaki Ishihara, Hiroko Nakamura, Hisashi Yamamoto  
*Synlett* **2001**, (7), 1113–1116. **DOI:** 10.1055/s-2001-15151 (Jul.)
- (67) "A green method for the selective esterification of primary alcohols in the presence of secondary alcohols or aromatic alcohols"  
 Kazuaki Ishihara, Masaya Nakayama, Suguru Ohara, Hisashi Yamamoto  
*Synlett* **2001**, (7), 1117–1120. **DOI:** 10.1055/s-2001-15156 (Jul.)
- (68) "3,5-Bis(perfluorodecyl)phenylboronic acid as an easily recyclable direct amide condensation catalyst"  
 Kazuaki Ishihara, Shoichi Kondo, Hisashi Yamamoto  
*Synlett* **2001**, (9), 1371–1374. **DOI:** 10.1055/s-2001-16788 (Sep.)
- (69) "Polystyrene-bound tetrafluorophenylbis(triflyl)methane as an organic-solvent-swellable and strong Brønsted acid catalyst" (*Selected as a hot paper*)  
 Kazuaki Ishihara, Aiko Hasegawa, Hisashi Yamamoto  
*Angew. Chem. Int. Ed.* **2001**, 40(21), 4077–4079. **DOI:** 10.1002/1521-3773(20011105)40:21<4077::AID-ANIE4077>3.0.CO;2-1 (Oct. 31)
- (70) "A high yield procedure for the  $\text{Me}_3\text{SiNTf}_2$ -induced carbon–carbon bond-forming reactions of silyl nucleophiles with carbonyl compounds: The importance of addition order and solvent effects"  
 Kazuaki Ishihara, Yukihiro Hiraiwa, Hisashi Yamamoto  
*Synlett* **2001**, (12), 1851–1854. **DOI:** 10.1055/s-2001-18761 (Dec.)
- (71) "(3,4,5-Trifluorophenyl)boronic acid-catalyzed amide condensation of carboxylic acids and amines: *N*-Benzyl-4-phenylbutyramide (4-Phenylbutyramide, *N*-benzyl-)"  
 Kazuaki Ishihara, Suguru Ohara, Hisashi Yamamoto  
*Org. Synth.* **2002**, 79, 176–185. **DOI:** 10.1002/0471264180.os079.21
- (72) "Enantio- and diastereoselective stepwise cyclization of polypropenoids induced by chiral and achiral LBAs. A new entry to (−)-ambrox®, (+)-podocarpa-8,11,13-triene diterpenoids, and (−)-tetracyclic polypropenoid of sedimentary origin  
 Kazuaki Ishihara, Hideaki Ishibashi, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **2002**, 124(14), 3647–3655. **DOI:** 10.1021/ja0124865 (Apr. 10)
- (73) "Lewis acid-activated chiral leaving group: Enantioselective electrophilic addition to prochiral olefins"  
 Hiroko Nakamura, Kazuaki Ishihara, Hisashi Yamamoto  
*J. Org. Chem.* **2002**, 67(15), 5124–5137. **DOI:** 10.1021/jo0201651 (Jun. 28)
- (74) "Direct ester condensation from a 1:1 mixture of carboxylic acids and alcohols catalyzed by hafnium(IV) or zirconium(IV) salts"  
 Kazuaki Ishihara, Masaya Nakayama, Suguru Ohara, Hisashi Yamamoto

*Tetrahedron* **2002**, 58(41), 8179–8188. DOI: 10.1016/s0040-4020(02)00966-3 (Oct. 7)

(75) “Rhenium(VII) oxo complexes as extremely active catalysts in the dehydration of primary amides and aldoximes to nitriles”

Kazuaki Ishihara, Yoshiro Furuya, Hisashi Yamamoto

*Angew. Chem. Int. Ed.* **2002**, 41(16), 2983–2986. DOI: 10.1002/1521-3773(20020816)41:16<2983::AID-ANIE2983>3.0.CO;2-X (Aug. 21)

(76) “Crucial role of the counterion of silyl Lewis acid in the Mukaiyama aldol reaction”

Kazuaki Ishihara, Yukihiro Hiraiwa, Hisashi Yamamoto

*Chem. Commun.* **2002**, (15), 1564–1565. DOI: 10.1039/B203838B (Jun. 19)

(77) “Single-pass reaction column system with super Brønsted acid-loaded resin”

Kazuaki Ishihara, Aiko Hasegawa, Hisashi Yamamoto

*Synlett* **2002**, (8), 1296–1298. DOI: 10.1055/s-2002-32964 (Aug.)

(78) “A fluorous super Brønsted acid catalyst: Application to fluorous catalysis without fluorous solvents”

Kazuaki Ishihara, Aiko Hasegawa, Hisashi Yamamoto

*Synlett* **2002**, (8), 1299–1301. DOI: 10.1055/s-2002-32965 (Aug.)

(79) “The crystallographic structure of a Lewis acid-assisted chiral Brønsted acid as an enantioselective protonation reagent for silyl enol ethers”

Kazuaki Ishihara, Daisuke Nakashima, Yukihiro Hiraiwa, Hisashi Yamamoto

*J. Am. Chem. Soc.* **2003**, 125(1), 24–25. DOI: 10.1021/ja021000x (Jan. 8)

(80) “New bulky chiral Lewis acid catalyst: 3,3'-di(2-mesitylethynyl)binaphthol-titanium(IV) complex”

Kazuaki Ishihara, Jun Kobayashi, Kazuhiko Nakano, Hideaki Ishibashi, Hisashi Yamamoto

*Chirality* **2003**, 15(2), 135–138. DOI: 10.1002/chir.10155 (Dec. 27, 2002)

(81) “A new method for the preparation of aluminum and titanium tris(2,6-diphenylphenoxy) reagents and their application in organic synthesis”

Atsushi Sato, Asuka Hattori, Kazuaki Ishihara, Susumu Saito, Hisashi Yamamoto

*Chem. Lett.* **2003**, 32(11), 1006–1007. DOI: 10.1246/cl.2003.1006 (Nov. 5)

(82) “Aldol synthesis with an aqueous solution of formalin”

Nobuko Ozasa, Manabu Wadamoto, Kazuaki Ishihara, Hisashi Yamamoto

*Synlett* **2003**, (14), 2219–2221. DOI: 10.1055/s-2003-42089 (Nov.)

(83) “Trimethylsilyl pentafluorophenylbis(trifluoromethanesulfonyl)methide as a super Lewis acid catalyst for the condensation of trimethylhydroquinone with isophytol”

Aiko Hasegawa, Kazuaki Ishihara, Hisashi Yamamoto

*Angew. Chem. Int. Ed.* **2003**, 42(46), 5731–5733. DOI: 10.1002/anie.200352382 (Nov. 25)

(84) “Chiral molecular recognition by aluminum tris(2,6-diphenylphenoxy) in an asymmetric 1,4-addition”

Hirotsugu Ito, Takashi Nagahara, Kazuaki Ishihara, Susumu Saito, Hisashi Yamamoto

*Angew. Chem. Int. Ed.* **2004**, 43(8), 994–997. DOI: 10.1002/anie.200352809 (Feb. 11)

(85) “Asymmetric vinylogous direct aldol reaction using aluminum tris[2,6-bis(4-alkylphenyl)phenoxy]”

Hiroshi Takikawa, Kazuaki Ishihara, Susumu Saito, Hisashi Yamamoto

*Synlett* **2004**, (4), 732–734. DOI: 10.1055/s-2004-817761 (Mar. 9)

(86) “Asymmetric direct aldol reaction assisted by water and a proline-derived tetrazole catalyst”

Hiromi Torii, Masakazu Nakadai, Kazuaki Ishihara, Susumu Saito, Hisashi Yamamoto

*Angew. Chem. Int. Ed.* **2004**, 43(15), 1983–1986. DOI: 10.1002/anie.200352724 (Mar. 16)

(87) “Synthesis of carboxaimdes by LDA-catalyzed Haller–Bauer and Cannizzaro reactions”

Kazuaki Ishihara, Takayuki Yano

*Org. Lett.* **2004**, 6(12), 1983–1986. DOI: 10.1021/ol0494459 (Jun. 10)

(88) “Tin(IV) chloride–chiral pyrogallol derivatives as new Lewis acid-assisted chiral Brønsted acids for enantioselective polyene cyclization”

Keiko Kumazawa, Kazuaki Ishihara, Hisashi Yamamoto

*Org. Lett.* **2004**, 6(15), 2551–2554. DOI: 10.1021/ol049126h (Jul. 22)

(89) “Arylboronic acid-catalyzed direct condensation of carboxylic acids with ureas”

Toshikatsu Maki, Kazuaki Ishihara, Hisashi Yamamoto

*Synlett* **2004**, (8), 1355–1358. DOI: 10.1055/s-2004-825615 (Jul. 1)

(90) “Water-tolerant and reusable catalysts for direct ester condensation between equimolar amounts of carboxylic acids and alcohols”

Masaya Nakayama, Atsushi Sato, Kazuaki Ishihara, Hisashi Yamamoto

*Adv. Synth. Catal.* **2004**, 346(11), 1275–1279. DOI: 10.1002/adsc.200404149 (Sep. 29)

(91) “A new artificial cyclase for polypropenoids: Enantioselective total synthesis of (–)-chromazonarol, (+)-8-*epi*-puupehedione, and (–)-11’-deoxytaondiol methyl ether”

Hideaki Ishibashi, Kazuaki Ishihara, Hisashi Yamamoto

*J. Am. Chem. Soc.* **2004**, 126(36), 11122–11123. DOI: 10.1021/ja0472026 (Sep. 15)

(92) “Rational design of an L-histidine-derived minimal artificial acylase for the kinetic resolution of racemic alcohols”

Kazuaki Ishihara, Yuji Kosugi, Matsuiro Akakura

*J. Am. Chem. Soc.* **2004**, 126(39), 12212–12213. DOI: 10.1021/ja045850j (Sep. 11)

(93) “Highly alkyl-selective addition to ketones with magnesium ate complexes derived from Grignard reagents”

Manabu Hatano, Tokihiko Matsumura, Kazuaki Ishihara

*Org. Lett.* **2005**, 7(4), 573–576. DOI: 10.1021/ol047685i (Feb. 17)

(94) “Synthesis of (all-*rac*)- $\alpha$ -tocopherol in supercritical carbon dioxide: Tuning of the product selectivity in batch and continuous-flow reactors”

Yoshiaki Kokubo, Aiko Hasegawa, Shigeki Kuwata, Kazuaki Ishihara, Hisashi Yamamoto, Takao Ikariya

*Adv. Synth. Catal.* **2005**, 347(2–3), 220–224 (Special Issue: Dedicated Cluster: R. R. Schrock). DOI: 10.1002/adsc.200404312 (Feb. 14)

(95) “Bulky diarylammonium arenesulfonates as selective esterification catalysts”

Kazuaki Ishihara, Shoko Nakagawa, Akira Sakakura

*J. Am. Chem. Soc.* **2005**, 127(12), 4168–4169. DOI: 10.1021/ja050223v (Mar. 30)

(96) “Biomimetic synthesis of acid-sensitive (–)-caparrapi oxide and (+)-8-epicaparrapi oxide induced by artificial cyclases”

Muhammet Uyanik, Hideaki Ishibashi, Kazuaki Ishihara, Hisashi Yamamoto

*Org. Lett.* **2005**, 7(8), 1601–1604. DOI: 10.1021/ol050295r (Apr. 14)

(97) “Molybdenum oxides as highly effective dehydrative cyclization catalysts directed toward the synthesis of oxazolines and thiazolines”

Akira Sakakura, Rei Kondo, Kazuaki Ishihara

*Org. Lett.* **2005**, 7(10), 1971–1974. DOI: 10.1021/ol050543j (May 12)

(98) “Selective synthesis of phosphate monoesters by dehydrative condensation of phosphoric acid and alcohols by nucleophilic bases”

Akira Sakakura, Mikimoto Katsukawa, Kazuaki Ishihara

*Org. Lett.* **2005**, 7(10), 1999–2002. DOI: 10.1021/ol0504796 (May 12)

(99) “Biomimetic synthesis of acid-sensitive (–)- and (+)-caparrapi oxides, (–)- and (+)-8-epicaparrapi oxides, and (+)-dysifragin induced by artificial cyclases”

Muhammet Uyanik, Kazuaki Ishihara, Hisashi Yamamoto

*Bio. Med. Chem.* **2005**, 13(17), 5055–5065. DOI: 10.1016/j.bmc.1005.04.029 (Sep. 1)

(100) “Zr(IV)–Fe(III), –Ga(III), and –Sn(IV) binary metal complexes as synergistic and reusable esterification catalysts”

Atsushi Sato, Yuka Nakamura, Toshikatsu Maki, Kazuaki Ishihara, Hisashi Yamamoto

*Adv. Synth. & Catal.* **2005**, 347(10), 1337–1440. DOI: 10.1002/adsc.200505083 (Aug. 22)

(101) “Facile synthesis of aryl- and alkyl-bis(trifluoromethylsulfonyl)methanes” (Selected as a BCSJ award article)

Aiko Hasegawa, Takuo Ishikawa, Kazuaki Ishihara, Hisashi Yamamoto

*Bull. Chem. Soc. Jpn.* **2005**, 78(8), 1401–1410. DOI: 10.1246/bcsj.78.1401 (Aug. 15)

(102) “Chiral lithium binaphtholate aqua complex as a highly effective asymmetric catalyst for cyanohydrin synthesis”

Manabu Hatano, Takumi Ikeno, Takashi Miyamoto, Kazuaki Ishihara

*J. Am. Chem. Soc.* **2005**, 127(31), 10776–10777. DOI: 10.1021/ja051125c (Aug. 10)

(103) “Design of an organocatalyst for the enantioselective Diels–Alder reaction with  $\alpha$ -acyloxyacroleins”

Kazuaki Ishihara, Kazuhiko Nakano

- J. Am. Chem. Soc.* **2005**, 127(30), 10504–10505; 127(37), 13079 (additions and corrections). DOI: 10.1021/ja053368a (Aug. 3)
- (104) “Cyanuric chloride as a mild and active Beckmann rearrangement catalyst”  
Yoshiro Furuya, Kazuaki Ishihara, Hisashi Yamamoto  
*J. Am. Chem. Soc.* **2005**, 127(32), 11240–11241. DOI: 10.1021/ja053441x (Aug. 17)
- (105) “Enantioselective addition of organozinc reagents to aldehydes catalyzed by 3,3'-bis(diphenylphosphinoyl)-BINOL”  
Manabu Hatano, Takashi Miyamoto, Kazuaki Ishihara  
*Adv. Synth. & Catal.* **2005**, 347(11–13), 1561–1568 (*Special issue: Catalytic C-C bond formation*). DOI: 10.1002/adsc.200505221 (Oct. 19)
- (106) “N-Alkyl-4-boronopyridinium salts as thermally stable and reusable amide condensation catalysts”  
Toshikatsu Maki, Kazuaki Ishihara, Hisashi Yamamoto  
*Org. Lett.* **2005**, 7(22), 5043–5046. DOI: 10.1021/ol052060l (Oct. 5)
- (107) “N-Alkyl-4-boronopyridinium halides versus boric acid as catalysts for the esterification of  $\alpha$ -hydroxycarboxylic acids”  
Toshikatsu Maki, Kazuaki Ishihara, Hisashi Yamamoto  
*Org. Lett.* **2005**, 7(22), 5047–5050. DOI: 10.1021/ol052061d (Oct. 27)
- (108) “Bulky diarylammonium arenesulfonates as mild and extremely active dehydrative ester condensation catalysts”  
Akira Sakakura, Shoko Nakagawa, Kazuaki Ishihara  
*Tetrahedron* **2006**, 62(2–3), 422–433 (*Symposia-in-print: Organocatalysis in organic synthesis, edited by Pavel Kocovsky and Andrei V. Malkov*). DOI: 10.1016/j.tet.2005.09.059 (Jan. 9)
- (109) “Design of chiral macrocyclic complexes based on *trans*-chelation of n:n metal–bidenate *P,N*- or *P,P*-ligands”  
Manabu Hatano, Takafumi Asai, Kazuaki Ishihara  
*Chem. Lett.* **2006**, 35(2), 172–173. DOI: 10.1246/cl.2006.172 (Feb. 5)
- (110) “Crucial role for the conjugate base for silyl Lewis acid-induced Mukaiyama aldol reaction”  
Yukihiro Hiraiwa, Kazuaki Ishihara, Hisashi Yamamoto  
*Eur. J. Org. Chem.* **2006**, (8), 1837–1844. DOI: 10.1002/ejoc.200500845 (Apr. 10)
- (111) “4,5,6,7-Tetrachloro[*d*][1,3,2]dioxaborol-2-ol as an effective catalyst for the amide condensation of sterically demanding carboxylic acids”  
Toshikatsu Maki, Kazuaki Ishihara, Hisashi Yamamoto  
*Org. Lett.* **2006**, 8(7), 1431–1434. DOI: 10.1021/ol060216r (Mar. 30)
- (112) “Design of a small-molecule catalyst using intramolecular cation– $\pi$  interaction for enantioselective Diels–Alder and Mukaiyama–Michael reactions: L-DOPA-derived monopeptide•Cu(II) complex”  
Kazuaki Ishihara, Makoto Fushimi  
*Org. Lett.* **2006**, 8(9), 1921–1924. DOI: 10.1021/ol060651l (Apr. 27)
- (113) “Chiral 1,1'-binaphthyl-2,2'-diammonium salt catalysts for the enantioselective Diels–Alder reaction with  $\alpha$ -acyloxyacroleins”  
Akira Sakakura, Kenji Suzuki, Kazuhiko Nakano, Kazuaki Ishihara  
*Org. Lett.* **2006**, 8(11), 2229–2232. DOI: 10.1021/ol060490l (May 25)
- (114) “Enantioselective dialkylzinc addition to aldehydes catalyzed by chiral Zn(II)-BINOLates bearing phosphonates and phosphoramides in the 3,3'-positions”  
Manabu Hatano, Takashi Miyamoto, Kazuaki Ishihara  
*Synlett* **2006**, (11), 1762–1764. DOI: 10.1055/s-2006-944201 (Jul. 12)
- (115) “Design of Brønsted acid–assisted chiral Brønsted acid (Chiral BBA) catalyst bearing a bis(triflyl)methyl group for a Mannich-type reaction”  
Aiko Hasegawa, Yuki Naganawa, Makoto Fushimi, Kazuaki Ishihara, Hisashi Yamamoto  
*Org. Lett.* **2006**, 8(15), 3175–3178. DOI: 10.1021/ol060939a (Jul. 20)
- (116) “3,3'-Diphosphoryl-1,1'-bi-2-naphthol–Zn(II) complexes as conjugate acid–base catalysts for enantioselective dialkylzinc addition to aldehydes”  
Manabu Hatano, Takashi Miyamoto, Kazuaki Ishihara  
*J. Org. Chem.* **2006**, 71(17), 6474–6484. DOI: 10.1021/jo060908t (Aug. 18)

(117) "Highly efficient alkylation to ketones and aldimines with Grignard reagents catalyzed by zinc(II) chloride"

Manabu Hatano, Shinji Suzuki, Kazuaki Ishihara

*J. Am. Chem. Soc.* **2006**, 128(31), 9998–9999 (*The most-accessed communication (the first-ranking article): July–September, 2006*). DOI: 10.1021/ja0628405 (Aug. 9)

(118) "Iron(III)-zirconium(IV) combined salt immobilized on *N*-(polystyrylbutyl)pyridinium triflylimide as a reusable catalyst for a dehydrative esterification reaction"

Yuka Nakamura, Toshikatsu Maki, Xiaowei Wang, Kazuaki Ishihara, Hisashi Yamamoto

*Adv. Synth. Catal.* **2006**, 348(12–13), 1505 – 1510 (*Special issue: Multiphase catalysis, green solvents and immobilization*). DOI: 10.1002/adsc.200606126 (Aug. 11)

(119) "Catalytic diastereoselective polycyclization of homo(popolyprenyl)arene analogues bearing terminal siloxyvinyl groups"

Muhammet Uyanik, Kazuaki Ishihara, Hisashi Yamamoto

*Org. Lett.* **2006**, 8(24), 5649–5652. DOI: 10.1021/ol062378t (Nov. 23)

(120) "Enantioselective Diels–Alder reaction of  $\alpha$ -acyloxyacroleins catalyzed by chiral 1,1'-binaphthyl-2,2'-diammonium salts"

Akira Sakakura, Kenji Suzuki, Kazuaki Ishihara

*Adv. Synth. Catal.* **2006**, 348(16–17), 2457–2465 (*Special issue: Catalytic cycloaddition reactions*). DOI: 10.1002/adsc.200600322 (Nov. 27)

(121) "Dimeric scandium(III) and monomeric lanthanide(III) complexes with perfluoropropane-1,3-disulfonates as counter anions for Lewis acid catalysis"

Manabu Hatano, Eri Takagi, Manabu Arinobe, Kazuaki Ishihara

*J. Organomet. Chem.* **2007**, 692(1–3), 569–578 (*Special issue: Reaction control in dynamic complexes edited by Kazuyuki Tatsumi*). DOI: 10.1016/j.orgchem.2006.05.057 (Jan. 1)

(122) "The oxorhenium(VII)-catalyzed direct condensation of phosphoric acid with an alcohol"

Akira Sakakura, Mikimoto Katsukawa, Kazuaki Ishihara

*Angew. Chem. Int. Ed.* **2007**, 46(9), 1423–1426. DOI: 10.1002/anie.200604333

(123) "Perrhenic acid-catalyzed dehydration from primary amides, aldoximes, *N*-monoacylureas, and  $\alpha$ -substituted ketoximes to nitrile compounds"

Yoshiro Furuya, Kazuaki Ishihara, Hisashi Yamamoto

*Bull. Chem. Soc. Jpn.* **2007**, 80(2), 400–406. DOI: 10.1246/bcsj.80.400 (Feb. 15)

(124) "Enantioselective halocyclization of polyprenoids induced by nucleophilic phosphoramidites"

Akira Sakakura, Atsushi Ukai, Kazuaki Ishihara

*Nature* **2007**, 455(7130), 900–903. DOI: 10.1038/nature05553 (Feb. 22)

(125) "Unusual rate acceleration in the Brønsted acid catalyzed dehydration reactions: Local hydrophobic environment in aggregated *N*-(2,6-diphenylphenyl)-*N*-mesitylammonium pentafluorobenzenesulfonates"

Akira Sakakura, Hitoshi Watanabe, Shoko Nakagawa, Kazuaki Ishihara

*Chem. Asian J.* **2007**, 2(4), 477–483 (*Spotlights on our sister journals: Angew. Chem. Int. Ed. 17/2007 (p 2974–2975)*).

DOI: 10.1002/asia.200600380 (Mar. 15)

(126) "Kinetic resolution of racemic alcohols catalyzed by minimal artificial acylases derived from L-histidine"

Yuji Kosugi, Matsuiro Akakura, Kazuaki Ishihara

*Tetrahedron* **2007**, 63(27), 6191–6203 (*Symposia-in-Print: Tetrahedron 50<sup>th</sup> Anniversary Issue (Part 2), edited by Stephen F. Martin*). DOI: 10.1016/j.tet.2007.02.020 (Jul. 22)

(127) "Dehydrative cyclization catalyzed by the combination of molybdenum(VI) oxides and benzoic acids: First synthesis of the antitumour substance BE-70016"

Akira Sakakura, Shuhei Umemura, Rei Kondo, Kazuaki Ishihara

*Adv. Synth. Catal.* **2007**, 349(4–5), 551–555 (*Dedicated cluster communications to Professor Masakatsu Shibasaki on the occasion of his 60<sup>th</sup> birthday*). DOI: 10.1002/adsc.200600550 (Mar. 20)

(128) "New boron(III)-catalyzed amide and ester condensation reactions"

Toshikatsu Maki, Kazuaki Ishihara and Hisashi Yamamoto

*Tetrahedron* **2007**, *63*(35), 8645–8657 (*Symposia-in-Print: Tetrahedron Prize for Creativity in Organic Chemistry: New Reactions and Catalysts: Development and Applications*, edited by Stephen F. Martin). DOI: 10.1016/j.tet.2007.03.157 (Aug. 27)

(129) “Catalytic synthesis of peptide-derived thiazolines and oxazolines using bis(quinolinolato)dioxomolybdenum(VI) complexes”

Akira Sakakura, Rei Kondo, Shuhei Umemura and Kazuaki Ishihara

*Adv. Synth. Catal.* **2007**, *349*(10), 1641–1646. DOI: 10.1002/adsc.200700068 (Jul. 17)

(130) “Direct ester condensation catalyzed by bulky diarylammonium pentafluorobenzenesulfonates”

Akira Sakakura, Shoko Nakagawa, Kazuaki Ishihara

*Nature Protocols* **2007**, *2*(7), 1746–1751. DOI: 10.1038/nprot.2007.254 (July 5)

(131) “Enantioselective [2+2] cycloaddition of unsaturated alkenes with  $\alpha$ -acyloxyacroleins catalyzed by chiral organoammonium salts”

Kazuaki Ishihara, Kazuhiko Nakano

*J. Am. Chem. Soc.* **2007**, *129*(29), 8930–8931 (*a most-accessed communication (the 15<sup>th</sup>-ranking article): July–September, 2007*). DOI: 10.1021/ja073435w (Jul. 25)

(132) “Sodium phenoxide–phosphine oxides as extremely active Lewis base catalysts for the Mukaiyama aldol reaction with ketones”

Manabu Hatano, Eri Takagi, Kazuaki Ishihara

*Org. Lett.* **2007**, *9*(22), 4527–4530. DOI: 10.1021/ol702052r (Oct. 25)

(133) “Highly active chiral phosphoramido-Zn(II) complexes as conjugate acid–base catalysts for enantioselective organozinc addition to ketones”

Manabu Hatano, Takashi Miyamoto, Kazuaki Ishihara

*Org. Lett.* **2007**, *9*(22), 4535–4538. DOI: 10.1021/ol702074a (Oct. 25)

(134) “Bulky phosphazonium cation catalysis for dehydrative condensation of phosphoric acid with alcohols”

Akira Sakakura, Mikimoto Katsukawa, Takaomi Hayashi, Kazuaki Ishihara

*Green Chem.* **2007**, *9*(11), 1166–1169 (*Invited paper*). DOI: 10.1039/b707974e (Aug. 6)

(135) “Widely useful DMAP-catalyzed esterification under auxiliary base- and solvent-free conditions”

Akira Sakakura, Kimio Kawajiri, Takuro Ohkubo, Yuji Kosugi, Kazuaki Ishihara

*J. Am. Chem. Soc.* **2007**, *129*(47), 14775–14779. DOI: 10.1021/ja075824w (Nov. 28)

(136) “Enantioselective conjugate addition of dialkylzinc to cyclic enones catalyzed by chiral binaphthylidiamine–copper(I) complexes”

Manabu Hatano, Takagumi Asai, Kazuaki Ishihara

*Tetrahedron Lett.* **2007**, *48*(49), 8590–8594. DOI: 10.1016/j.tetlet.2007.10.061 (Dec. 3)

(137) “Enantioselective alkynylation to aldimines catalyzed by chiral 2,2’-di(2-aminoaryloxy)-1,1’-binaphthyl–copper(I) complexes”

Manabu Hatano, Takafumi Asai, Kazuaki Ishihara

*Tetrahedron Lett.* **2008**, *49*(2), 379–382. DOI: 10.1016/j.tetlet.2007.11.032 (Jan. 7)

(138) “Catalytic enantioselective [2+4] and [2+2] cycloaddition reactions with propiolamides”

Kazuaki Ishihara, Makoto Fushimi

*J. Am. Chem. Soc.* **2008**, *130*(24), 7532–7533. DOI: 10.1021/ja8015318 (Jun. 18)

(139) “Zwitterionic salts as mild organocatalysts for transesterification”

Kazuaki Ishihara, Masatoshi Niwa, Yuji Kosugi

*Org. Lett.* **2008**, *10*(11), 2187–2190. DOI: 10.1021/ol8005979 (Jun. 5)

(140) “Selective synthesis of cyclic phosphoric acid diesters through oxorhenium(VII)-catalyzed dehydrative condensation of phosphoric acid with alcohols”

Akira Sakakura, Masayuki Sakuma, Mikimoto Katsukawa, Kazuaki Ishihara

*Heterocycles* **2008**, *76*(1), 657–665 (*Prof. Ryoji Noyori’s Special Issue*). (Sep. 3)

(141) “Asymmetric intramolecular Cannizzaro reaction of anhydrous phenylglyoxal”

Kazuaki Ishihara, Takayuki Yano, Makoto Fushimi

*J. Fluorine. Chem.* **2008**, *129*(10), 994–997 (*Special 2008 ACS Award Issue "For Creative Work in Fluorine Chemistry", Dennis P. Curran*). DOI: 10.1016/j.jfluchem.2008.04.008 (Oct. 28)

- (142) "Convergent total syntheses of fluvibactin and vibriobactin using molybdenum(VI) oxide-catalyzed dehydrative cyclization as a key step"  
 Akira Sakakura, Shuhei Umemura, Kazuaki Ishihara  
*Chem. Commun.* **2008**, (30), 3561–3563. **DOI:** 10.1039/b805880f (Jun. 6)
- (143) "Rate-accelerating effect by the neighboring-group participation of protecting groups in the dehydrative cyclization of 1,3,5-triketones"  
 Akira Sakakura, Hitoshi Watanabe, Kazuaki Ishihara  
*Org. Lett.* **2008**, 10(12), 2569–2572. **DOI:** 10.1021/ol800860p (Jun. 19)
- (144) "Organocatalytic enantioselective Diels–Alder reaction of dienes with  $\alpha$ -(*N,N*-diacylamino)acroleins"  
 Kazuaki Ishihara, Kazuhiko Nakano, Matsujiro Akakura  
*Org. Lett.* **2008**, 10(13), 2893–2896. **DOI:** 10.1021/ol8011277 (Jul. 3)
- (145) "Kinetic resolution of racemic carboxylic acids by an L-histidine-derived sulfonamide-induced enantioselective esterification reaction"  
 Kazuaki Ishihara, Yuji Kosugi, Shuhei Umemura, Akira Sakakura  
*Org. Lett.* **2008**, 10(15), 3191–3194. **DOI:** 10.1021/ol801007m (Aug. 7)
- (146) "Open-air and solvent-free ester condensation catalyzed by sulfonic acids"  
 Akira Sakakura, Yoshiki Koshikari, Kazuaki Ishihara  
*Tetrahedron Lett.* **2008**, 49(34), 5017–5020. **DOI:** 10.1016/j.tetlet.2008.06.058 (Aug. 18)
- (147) "Chiral lithium salts of phosphoric acids as Lewis acid–base conjugate catalysts for the enantioselective cyanosilylation of ketones"  
 Manabu Hatano, Takumi Ikeno, Tokihiko Matsumura, Shinobu Torii, Kazuaki Ishihara  
*Adv. Synth. Catal.* **2008**, 350(11+12), 1776–1780. **DOI:** 10.1002/adsc.200800314 (Jul. 8)
- (148) "Pyridinium 1,1'-binaphthyl-2,2'-disulfonates as highly effective chiral Brønsted acid–base combined salt catalysts for enantioselective Mannich-type reaction"  
 Manabu Hatano, Toshikatsu Maki, Katsuhiko Moriyama, Manabu Arinobe, Kazuaki Ishihara  
*J. Am. Chem. Soc.* **2008**, 130(50), 16858–16860. **DOI:** 10.1021/ja806875c (Dec. 17)
- (149) "2-Iodoxybenzenesulfonic acid (IBS) as an extremely active catalyst for the selective oxidation of alcohols to aldehydes, ketones, carboxylic acids and enones with Oxone®"  
 Muhammet Uyanik, Matsujiro Akakura, Kazuaki Ishihara  
*J. Am. Chem. Soc.* **2009**, 131(1), 251–262 (**Rank in the journal's Top 20 most downloaded articles over the last 12 months**). **DOI:** 10.1021/ja807110n (Jan. 14)
- (150) "Highly efficient synthesis of functionalized tertiary alcohols catalyzed by potassium alkoxide–crown ether complexes"  
 Manabu Hatano, Shinji Suzuki, Eri Takagi, Kazuaki Ishihara  
*Tetrahedron Lett.* **2009**, 50(26), 3171–3174 (**Special Issue 50<sup>th</sup> Anniversary**). **DOI:** 10.1016/j.tetlet.2009.01.028 (Jul. 1)
- (151) "Dehydrative cyclization of serine, threonine, and cysteine residues catalyzed by molybdenum(VI) oxo compounds"  
 Akira Sakakura, Rei Kondo, Shuhei Umemura, Kazuaki Ishihara  
*Tetrahedron* **2009**, 65(10), 2102–2109. **DOI:** 10.1016/j.tet.2008.12.074 (Mar. 7)
- (152) "3-Pyrroline-1-carbonyl (Pyroc) group: A removable protecting group for the kinetic resolution of racemic carboxylic acids and alcohols through catalytic asymmetric acylation"  
 Akira Sakakura, Shuhei Umemura, Kazuaki Ishihara  
*Synlett* **2009**, (10), 1647–1650 (**Synlett Cluster: Bifunctional catalyst**). **DOI:** 10.1055/s-0029-1217321 (Jun. 17)
- (153) "Hypervalent iodine-catalyzed oxylactonization of ketocarboxylic acids to ketolactones"  
 Muhammet Uyanik; Takeshi Yasui; Kazuaki Ishihara  
*Bioorg. Med. Chem. Lett.* **2009**, 19(14), 3848–3851 (**Special Symposium-in-Print: the 2009 Tetrahedron Young Investigator Award in Bioorganic and Medicinal Chemistry in honor of its recipient Professor Carlos F. Barbas**). **DOI:** 10.1016/j.bmcl.2009.03.148 (Jul. 15)
- (154) "Chiral lanthanum(III)-binaphthyl disulfonate complexes for catalytic enantioselective Strecker reaction"  
 Manabu Hatano, Yasushi Hattori, Yoshiro Furuya, Kazuaki Ishihara  
*Org. Lett.* **2009**, 11(11), 2321–2324. **DOI:** 10.1021/ol900680f (Jun. 4)

- (155) "IBS-catalyzed oxidative rearrangement of tertiary allylic alcohols to enones with oxone®"  
 Muhammet Uyanik, Ryota Fukatsu, Kazuaki Ishihara  
*Org. Lett.* **2009**, *11*(15), 3470–3473. **DOI:** 10.1021/ol9013188 (Aug. 6)
- (156) "Rational design of highly effective asymmetric Diels–Alder catalysts bearing 4,4'-sulfonamidomethyl groups"  
 Akira Sakakura, Rei Kondo, Yuki Matsumura, Matsuiro Akaura, Kazuaki Ishihara  
*J. Am. Chem. Soc.* **2009**, *131*(49), 17762–17764. **DOI:** 10.1021/j906098b (Dec. 16)
- (157) "Chiral lithium(I)-binaphtholate salts for the enantioselective direct Mannich-type reaction with a change of *syn/anti* and absolute stereochemistry"  
 Manabu Hatano, Takahiro Horibe, Kazuaki Ishihara  
*J. Am. Chem. Soc.* **2010**, *132*(1), 56–57. **DOI:** 10.1021/ja909874b (Jan. 13)
- (158) "Highly chemoselective stoichiometric alkylation of ketones with Grignard reagent-derived zinc(II) ate complexes"  
 Manabu Hatano, Shinji Suzuki, Kazuaki Ishihara  
*Synlett* **2010**, (2), 321–324 (*Synlett Cluster: Grignard reagents*). **DOI:** 10.1055/s-0029-1219220 (Jan.)
- (159) "Bromine-catalyzed aerobic oxidation of alcohols"  
 Muhammet Uyanik, Ryota Fukatsu, Kazuaki Ishihara  
*Chem. Asian. J.* **2010**, *5*(3), 456–460 (*Dedicated to the 150th anniversary of Japan–UK diplomatic relations; 1<sup>st</sup>-ranking article in the most accessed articles in 02/2010; rank in the most accessed articles 3/2009–2/2010, Selected to J. Synth. Org. Chem., Jpn J. 2010, 68(8), pp. 873*). **DOI:** 10.1002/asia.200900609 (Feb. 1)
- (160) "Nucleophilic phosphine-catalyzed iodocyclization of isoprenoids bearing an oxygen terminal group"  
 Akira Sakakura, Gakujun Shomi, Atsushi Ukai, Kazuaki Ishihara  
*Heterocycles* **2010**, *82*(1), 249–255 (*Special issue: In honor of Dr. Albert Eschenmoser on 85th Birthday*). **DOI:** 10.3987/COM-09-S(E)1 (Dec. 31)
- (161) "Zinc(II)-catalyzed Grignard addition to ketones with RMgBr and RMgI"  
 Manabu Hatano, Orie Ito, Shinji Suzuki, Kazuaki Ishihara  
*Chem. Commun.* **2010**, *46*(15), 2674–2676. **DOI:** 10.1039/b926243a (Feb. 9)
- (162) "Enantioselective Kita oxidative spirolactonization catalyzed by in situ generated chiral hypervalent iodine(III) species"  
 Muhammet Uyanik, Takeshi Yasui, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2010**, *49*(12), 2175–2177 (*Hot paper, Cover picture*). **DOI:** 10.1002/anie.200907352 (Mar. 1)
- (163) "Which is the actual catalyst: chiral phosphoric acid or chiral calcium phosphate?"  
 Manabu Hatano, Katsuhiko Moriyama, Toshikatsu Maki, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2010**, *49*(22), 3823–3826 (*Cover picture, Rank in most accessed articles in 04/2010*). **DOI:** 10.1002/anie.201000824 (Apr. 20)
- (164) "Synthesis of chiral 3,3'-disubstituted 1,1'-binaphthyl-2,2'-disulfonic acids"  
 Manabu Hatano, Yoshihiro Sugiura, Kazuaki Ishihara  
*Tetrahedron: Asymmetry* **2010**, *21*(9–10), 1311–1314 (*Henri Kagan: An 80<sup>th</sup> Birthday Celebration Special issue – Part 1, Guest Editors: Jean-Claude Flaud and John M. Brown*). **DOI:** 10.1016/j.tetasy.2010.03.014 (May 17)
- (165) "Chiral hypervalent iodine-catalyzed enantioselective oxidative Kita spirolactonization of 1-naphthol derivatives and one-pot diastereoselective oxidation to epoxyspirolactones"  
 Muhammet Uyanik, Takeshi Yasui, Kazuaki Ishihara  
*Tetrahedron* **2010**, *66*(31), 5841–5851 (*Symposia-in-Print: Hypervalent Iodine Chemistry - Recent Advances and Applications, co-edited by Thomas Wirth and Stephane Quideaux; The "Top-25 most cited articles" as published in Tetrahedron (2010-2011)*). **DOI:** 10.1016/j.tet.2010.04.060 (Jul. 31)
- (166) "Quaternary ammonium (hypo)iodite catalysis for enantioselective oxidative cycloetherification"  
 Muhammet Uyanik, Hiroaki Okamoto, Takeshi Yasui, Kazuaki Ishihara  
*Science* **2010**, *328*(5984), 1376–1379. **DOI:** 10.1126/science.1188217 (Jun. 11)
- (167) "A concise synthesis of (S)-(+)–ginnol based on catalytic enantioselective addition of commercially unavailable di(*n*-alkyl)zinc to aldehydes and ketones"  
 Manabu Hatano, Tomokazu Mizuno, Kazuaki Ishihara  
*Synlett* **2010**, (13), 2024–2028 (*Cluster: Green Chemistry*). **DOI:** 10.1055/s-0030-1258129 (Aug.)

- (168) "Catalytic enantioselective synthesis of sterically demanding alcohols using di(2°-alkyl)zinc prepared by the refined Charette's method"  
Manabu Hatano, Tomokazu Mizuno, Kazuaki Ishihara  
*Chem. Commun.* **2010**, 46(30), 5443–5445. DOI: 10.1039/c0cc01301c (Jun. 29)
- (169) "Zinc(II)-catalyzed addition of Grignard reagents to ketones"  
Manabu Hatano, Orie Ito, Shinji Suzuki, Kazuaki Ishihara  
*J. Org. Chem.* **2010**, 75(15), 5008–5016 (*The journal's Top 20 most downloaded articles for the month (June, 2010)*). DOI: 10.1021/jo100563p (Aug. 6)
- (170) "Magnesium(II)-binaphtholate as a practical chiral catalyst for the enantioselective direct Mannich-type reaction with malonates"  
Manabu Hatano, Takahiro Horibe, Kazuaki Ishihara  
*Org. Lett.* **2010**, 12(15), 3502–3505 (*Rank in most accessed articles in 07/2010*). DOI: 10.1021/o1101353r (Aug. 6)
- (171) "Catalytic enantioselective 1,3-dipolar cycloadditions of nitrones with propioloylpyrazoles and acryloylpyrazoles induced by chiral π-cation catalysts"  
Akira Sakakura, Masahiro Hori, Makoto Fushimi, Kazuaki Ishihara  
*J. Am. Chem. Soc.* **2010**, 132(44), 15550–15552. DOI: 10.1021/ja1081603 (Nov. 10)
- (172) "Ligand-assisted rate acceleration in lanthanum(III) isopropoxide-catalyzed transesterification of carboxylic esters"  
Manabu Hatano, Yoshiro Furuya, Takumi Shimmura, Kastuhiko Moriyama, Sho Kamiya, Toshikatsu Maki, Kazuaki Ishihara  
*Org. Lett.* **2011**, 13(3), 426–429. DOI: 10.1021/o102753n (Feb. 4)
- (173) "Lanthanum(III) isopropoxide-catalyzed chemoselective transesterification of dimethyl carbonate and methyl carbamates"  
Manabu Hatano, Sho Kamiya, Katsuhiko Moriyama, Kazuaki Ishihara  
*Org. Lett.* **2011**, 13(3), 430–433. DOI: 10.1021/o102754y (Feb. 4)
- (174) "Brønsted base-assisted boronic acid catalysis for the dehydrative intramolecular condensation of dicarboxylic acids"  
Akira Sakakura, Takuro Ohkubo, Risa Yamashita, Matsujiro Akakura, Kazuaki Ishihara  
*Org. Lett.* **2011**, 13(5), 892–895. DOI: 10.1021/o102926n (Mar. 4)
- (175) "Enantioselective Friedel–Crafts aminoalkylation reaction catalyzed by chiral ammonium 1,1'-binaphthyl-2,2'-disulfonates"  
Manabu Hatano, Yoshihiro Sugiura, Matsujiro Akakura, Kazuaki Ishihara  
*Synlett* **2011**, (9), 1247–1250 (*Synlett Cluster: Brønsted acid catalysis*). DOI: 10.1055/s-0030-1260538 (Sep.)
- (176) "Commercially available neat organozincs as highly reactive reagents for catalytic enantioselective addition to ketones and aldehydes under solvent free conditions"  
Manabu Hatano, Tomokazu Mizuno, Kazuaki Ishihara  
*Tetrahedron* **2011**, 67(24), 4417–4424 (*Symposium in print, Tetrahedron young investigator award 2011, Useful synthetic methods: Innovative developments and applications, F. Dean Toste*). DOI: 10.1016/j.tet.2011.02.042 (Feb. 24)
- (177) "In situ generated (hypo)iodite catalysts for the direct α-oxyacetylation of carbonyl compounds with carboxylic acids"  
Muhammet Uyanik, Daisuke Suzuki, Takeshi Yasui, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2011**, 50(23), 5331–5334. DOI: 10.1002/anie.201101522 (Aug. 28)
- (178) "Desymmetrization of meso glycerol derivatives induced by L-histidine-derived acylation catalysts"  
Akira Sakakura, Syuhei Umemura, Kazuaki Ishihara  
*Adv. Synth. Catal.* **2011**, 353(11-12), 1938–1942. DOI: 10.1002/adsc.201100252 (Aug. 10)
- (179) "Chiral Lewis base-assisted Brønsted acid (LBBA)-catalyzed enantioselective cyclization of 2-geranylphenols"  
Akira Sakakura, Masayuki Sakuma, Kazuaki Ishihara  
*Org. Lett.* **2011**, 13(12), 3130–3133. DOI: 10.1021/o1201032t (May 19)
- (180) Catalytic enantioselective alkyl and aryl addition to aldehydes and ketones with organozinc reagents derived from alkyl Grignard reagents or arylboronic acids  
Manabu Hatano, Riku Gouzu, Tokokazu Mizuno, Hitoshi Abe, Toshihide Yamada, Kazuaki Ishihara

*Catal. Sci. Technol.* **2011**, *1*(7), 1149–1158 (*cover picture, Rank in most accessed articles in 08/2011 (1<sup>st</sup> ranking), Rank in most accessed articles in 06/2012 (9<sup>th</sup> ranking)*). DOI: 10.1039/c1cy00108f (Sep. 20)

(181) “Enantioselective Diels–Alder reactions with anomalous endo/exo selectivities using conformationally flexible chiral supramolecular catalysts”

Manabu Hatano, Tomokazu Mizuno, Atsuto Izumiseki, Ryota Usami, Takafumi Asai, Matsujiro Akakura, Kazuaki Ishihara

*Angew. Chem. Int. Ed.* **2011**, *50*(51), 12189–12192. DOI: 10.1002/anie.201106497 (Oct. 25)

(182) “Intramolecular dehydrative condensation of dicarboxylic acids with Brønsted base-assisted boronic acid catalysts”

Akira Sakakura, Risa Yamashita, Takuro Ohkubo, Matsujiro Akakura, Kazuaki Ishihara

*Austr. J. Chem.* **2011**, *64*(11), 1458–1465 (**RESEARCH FRONT: Organoboron Chemistry**). DOI: 10.1071/CH11301 (Nov. 16)

(183) “2-Iodoxy-5-methylbenzenesulfonic acid-catalyzed selective oxidation of 4-bromobenzyl alcohol to 4-bromobenzaldehyde or 4-bromobenzoic acid with oxone”

Muhammet Uyanik, Kazuaki Ishihara

*Org. Synth.* **2012**, *89*, 105–114. (Sep. 29)

(184) “Hydrophobic *N,N*-diarylammonium pyrosulfates as dehydrative condensation catalysts under aqueous conditions”

Akira Sakakura, Yoshiki Koshikari, Matsujiro Akakura, Kazuaki Ishihara

*Org. Lett.* **2012**, *14*(1), 30–33. DOI: 10.1021/ol2027366 (Nov. 29, 2011)

(185) “Enantioselective direct aminalization with primary carboxamides catalyzed by chiral ammonium 1,1'-binaphthyl-2,2'-disulfonates”

Manabu Hatano, Takuya Ozaki, Yoshihiro Sugiura, Kazuaki Ishihara

*Chem. Commun.* **2012**, *48*(41), 4986–4988 (*Invited article for organocatalysis in this issue which is co-edited by Keiji Maruoka (Kyoto University), Hisashi Yamamoto (University of Chicago), Liu-Zhu Gong (University of Science and Technology of China) and Benjamin List (Max-Planck-Institut für Kohlenforschung)*). DOI: 10.1039/C2CC31530K (Apr 16)

(186) “Enantioselective Diels–Alder reaction of  $\alpha$ -(acylthio)acroleins: a new entry to sulfur-containing chiral quaternary carbons”

Akira Sakakura, Hiroki Yamada, Kazuaki Ishihara

*Org. Lett.* **2012**, *14*(12), 2972–2975. DOI: 10.1021/ol300921f (May 25)

(187) “*N,N*-Diarylammonium pyrosulfate as a highly effective reverse micelle-type catalyst for hydrolysis of esters”

Yoshiki Koshikari, Akira Sakakura, Kazuaki Ishihara

*Org. Lett.* **2012**, *14*(12), 3194–3197. DOI: 10.1021/ol301290c (May 30)

(188) “IBS-Catalyzed Regioselective Oxidation of Phenols to 1,2-Quinones with Oxone®,”

Muhammet Uyanik, Tatsuya Mutsuga, Kazuaki Ishihara

*Molecules* **2012**, *17*(7), 8604–8616 (**the Special Issue: Hypervalent Compounds**). DOI: 10.3390/molecules17078604 (Jul. 18)

(189) “ $\alpha$ -Heterosubstituted  $\beta$ -alkylacroleins as useful multisubstituted dienophiles for enantioselective Diels–Alder reactions”

Akira Sakakura, Hiroki Yamada, Kazuaki Ishihara

*Asian J. Org. Chem.* **2012**, *1*(2), 133–137 (**Inside Cover**). DOI: 10.1002/ajoc.201200054 (Jul. 24)

(190) “In situ generated ‘lanthanum(III) nitrate alkoxide’ as a highly active and nearly neutral transesterification catalyst”

Manabu Hatano, Sho Kamiya, Kazuaki Ishihara

*Chem. Commun.* **2012**, *48*(76), 9465–9467. DOI: 10.1039/C2CC34987F (Aug. 8)

(191) “Baeyer–Villiger oxidation and oxidative cascade reactions with aqueous hydrogen peroxide catalyzed by lipophilic Li[B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>] and Ca[B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>]<sub>2</sub>”

Muhammet Uyanik, Daisuke Nakashima, Kazuaki Ishihara

*Angew. Chem. Int. Ed.* **2012**, *51*(36), 9093–9096. DOI: 10.1002/anie.201204286 (Aug. 15)

(192) “Chiral magnesium(II) binaphtholates as cooperative Brønsted/Lewis acid–base catalysts for highly enantioselective addition of phosphorus nucleophiles to  $\alpha,\beta$ -unsaturated esters and ketones”

Manabu Hatano, Takahiro Horibe, Kazuaki Ishihara

*Angew. Chem. Int. Ed.* **2013**, *52*(17), 4549–4553 (**VIP, Cover picture**). DOI: 10.1002/anie.201300938 (Apr. 8)

- (193) "Kinetic resolution of racemic carboxylic acids through asymmetric protolactonization promoted by chiral phosphorous acid diester"  
 Masayuki Sakuma, Akira Sakakura, Kazuaki Ishihara  
*Org. Lett.* **2013**, *15*(11), 2838–2841. **DOI:** 10.1021/ol401313d (May 15)
- (194) "Enantioselective cyano-ethoxycarbonylation of isatins promoted by a Lewis base-Brønsted acid cooperative catalyst"  
 Yoshihiro Ogura, Matsuiro Akakura, Akira Sakakura, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2013**, *52*(32), 8299–8383. **DOI:** 10.1002/anie.201303572 (Jul. 3)
- (195) "Primary alkylboronic acids as highly active catalysts for the dehydrative amide condensation of  $\alpha$ -hydroxycarboxylic acids"  
 Risa Yamashita, Akira Sakakura, Kazuaki Ishihara  
*Org. Lett.* **2013**, *15*(14), 3654–3657. **DOI:** 10.1021/ol401537f (Jun. 26)
- (196) "Hydrogen bonding and alcohol effects in asymmetric hypervalent iodine catalysis: Enantioselective oxidative dearomatization of phenols"  
 Muhammet Uyanik, Takeshi Yasui, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2013**, *52*(35), 9215–9218. **DOI:** 10.1002/anie.201303559 (Jul. 19)
- (197) "Phosphite–urea" cooperative high-turnover catalysts for the highly selective bromocyclization of homogeranylarenes"  
 Yasuhiro Sawamura, Hidefumi Nakatsuji, Akira Sakakura, Kazuaki Ishihara  
*Chem. Sci.* **2013**, *4*(11), 4181–4186. **DOI:** 10.1039/C3SC51432C (Aug. 2)
- (198) "Synthesis of optically pure 3,3'-diaryl binaphthyl disulfonic acids via stepwise N–S bond cleavage"  
 Manabu Hatano, Takuya Ozaki, Keisuke Nishikawa, Kazuaki Ishihara  
*J. Org. Chem.* **2013**, *78*(20), 10405–10413. **DOI:** 10.1021/jo401848z (Sep. 26)
- (199) "Chiral supramolecular magnesium(II) binaphtholate catalysts for the enantioselective direct Mannich-type reaction and hetero-Diels–Alder reaction"  
 Manabu Hatano, Takahiro Horibe, Kenji Yamashita, Kazuaki Ishihara  
*Asian J. Org. Chem.* **2013**, *2*(11), 952–956. (*Special Issue: 40 Years of the Mukaiyama Aldol Reaction, 1973–2013; This paper ranks 6th in "Most Accessed in 11/2013".*) **DOI:** 10.1002/ajoc.201300190 (Nov. 6)
- (200) "Selective bromocyclization of 2-geranylphenols promoted by phosphite–urea cooperative catalysts"  
 Yasuhiro Sawamura, Hidefumi Nakatsuji, Matsuiro Akakura, Akira Sakakura, Kazuaki Ishihara  
*Chirality* **2014**, *26*(7), 356–360. (*Special Issue: Asymmetric Halogenation Chemistry*). **DOI:** 10.1002/chir.22297 (Feb. 7)
- (201) "Catalytic enantioselective inverse electron-demand hetero-Diels–Alder reaction with allylsilanes"  
 Yuki Matsumura, Takahiro Suzuki, Akira Sakakura, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2014**, *53*(24), 6131–6134. (*SYNFACTS 2014*, *10*(7), 728 **Contributors: Mark Lautens and Steffen Kress**) **DOI:** 10.1002/anie.201402934 (Apr. 29)
- (202) "An enantioselective Diels–Alder reaction of 1,2-dihydropyridines with  $\alpha$ -acyloxyacroleins catalyzed by chiral primary ammonium salt"  
 Kazuaki Ishihara, Hiroki Yamada, Matsuiro Akakura  
*Chem. Commun.* **2014**, *50*(48), 6357–6360. **DOI:** 10.1039/C4CC01445F (Apr. 11)
- (203) "Cooperative activation with chiral nucleophilic catalysts and *N*-haloimides on enantioselective iodolactonization of 4-arylmethyl-4-pentenoic acids"  
 Hidefumi Nakatsuji, Yasuhiro Sawamura, Akira Sakakura, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2014**, *53*(27), 6974–6977. **DOI:** 10.1002/anie.201400946 (May 19).
- (204) "High-turnover hypoiodite catalysis for asymmetric synthesis of tocopherols"  
 Muhammet Uyanik, Hiroki Hayashi, Kazuaki Ishihara  
*Science* **2014**, *345*(6194), 291–294. **DOI:** 10.1126/science.1254976 (July 18).
- (205) "Enantioselective 1,3-dipolar cycloaddition of azomethine imines with propioloylpyrazoles induced by chiral  $\pi$ -cation catalysts"  
 Masahiro Hori, Akira Sakakura, Kazuaki Ishihara  
*J. Am. Chem. Soc.* **2014**, *136*(38), 13198–13201. **DOI:** 10.1021/ja508441t (September 8).
- (206) "Chiral ammonium hypoiodite-catalyzed enantioselective oxidative dearomatization of 1-naphthols using hydrogen peroxide"  
 Muhammet Uyanik, Niiha Sasakura, Erina Kaneko, Kento Ohori, Kazuaki Ishihara  
*Chem. Lett.* **2015**, *44*(2), 179–181 [*Editor's Choice*]. **DOI:** 10.1246/cl.141012 (February 5).
- (207) "C-selective and diastereoselective alkyl addition to  $\beta,\gamma$ -alkynyl- $\alpha$ -imino esters with zinc(II) ate complexes"  
 Manabu Hatano, Kenji Yamashita, Mai Mizuno, Orie Ito, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2015**, *54*(9), 2707–2711. **DOI:** 10.1002/anie.201408916 (January 16)
- (208) "High-performance hypoiodite/hydrogen peroxide catalytic system for the oxylactonization of aliphatic  $\gamma$ -oxocarboxylic acids"  
 Muhammet Uyanik, Daisuke Suzuki, Mizu Watanabe, Hiroyasu Tanaka, Kikuo Furukawa, Kazuaki Ishihara

- Chem. Lett.* **2015**, 44(3), 387–389. DOI: 10.1246/cl.141110 (February 17)
- (209) “Practical oxidative dearomatization of phenols with sodium hypochlorite pentahydrate”  
Muhammet Uyanik, Niiha Sasakura, Mitsuyoshi Kuwahata, Yasukazu Ejima, Kazuaki Ishihara  
*Chem. Lett.* **2015**, 44(3), 381–383. DOI: 10.1246/cl.141130 (February 17) (This paper is the highest rank in "Top Accessed Articles" of *Chemistry Letters*)
- (210) “C- and N-selective Grignard addition reactions of  $\alpha$ -aldimino esters in the presence or absence of Zinc(II) chloride: Synthetic applications to optically active azacycles”  
Manabu Hatano, Kenji Yamashita, Kazuaki Ishihara  
*Org. Lett.* **2015**, 17(10), 2412–2415. DOI: 10.1021/acs.orglett.5b00927 (April 28, 2015) (*Synfacts 2015* **11**(7), 0761–0761, Contributors: P.; Hammann, J. M. “Grignard Addition to Aldimino Esters”)
- (211) “Boron tribromide-assisted chiral phosphoric acid catalyst for a highly enantioselective Diels–Alder reaction of 1,2-dihydropyridines”  
Manabu Hatano, Yuta Goto, Atsuto Izumiseki, Matsujiro Akakura, Kazuaki Ishihara  
*J. Am. Chem. Soc.* **2015**, 137(42), 13472–13475. DOI: 10.1021/jacs.5b08693 (October 12, 2015) (Rank in the journal's Top 20 most downloaded articles for the previous month)
- (212) “Remote tris(pentafluorophenyl)borane-assisted chiral phosphoric acid catalysts for the enantioselective Diels–Alder reaction”  
Manabu Hatano, Hideyuki Ishihara, Yuta Goto, Kazuaki Ishihara  
*Synlett* **2015**, accepted.
- (213) “Enantioselective cyano-alkoxycarbonylation of  $\alpha$ -oxoesters promoted by Brønsted acid-Lewis base cooperative catalysts”  
Kazuaki Ishihara, Yoshihiro Ogura  
*Org. Lett.* **2015**, 17(24), 6070–6073. DOI: 10.1021/acs.orglett.5b03093 (December 4, 2015)
- (214) “Structurally defined molecular hypervalent iodine catalysts for intermolecular enantioselective reactions”  
Stefan Haubenreisser, Thorsten H. Wöste, Claudio Martínez, Kazuaki Ishihara, Kilian Muñiz  
*Angew. Chem. Int. Ed.* **2016**, 55(1), 413–417. DOI: 10.1002/anie.201507180 (24 November 2015) (VIP, Cover Picture) (*Synfacts 2016*, 12(2), 0199–0199, Contributors: List, B.; Tsuji, N. “Hypervalent Iodine Catalyzed Asymmetric Vicinal Dioxygenation of Alkenes”)
- (215) “Boronic acid–DMAPO cooperative catalysis for dehydrative condensation between carboxylic Acids and amines”  
Kazuaki Ishihara, Yanhui Lu  
*Chem. Sci.* **2016**, 7(2), 1276–1280. DOI: 10.1039/C5SC03761A (First published online: 06 Nov 2015)
- (216) “Enantioselective cyanosilylation of ketones with extremely reactive lithium(I) dicyanotrimethylsilicate(IV) catalyzed by chiral lithium(I) phosphoryl phenoxide”  
Manabu Hatano, Katsuya Yamakawa, Tomoaki Kawai, Takahiro Horibe, Kazuaki Ishihara  
*Angew. Chem. Int. Ed.* **2016**, 55(12), 4021–4025. DOI: 10.1002/anie.201510682 (2 FEB 2016) (Back Cover Picture) (*Synfacts 2016* **12**(4), 0395–0395, Contributors: Lautens, M.; Yamamoto, K. “Lithium(I)-Catalyzed Enantioselective Cyanosilylation of Ketones”)
- (217) “Enantioselective Diels–Alder reaction induced by chiral supramolecular Lewis acid catalysts based on CN $\cdots$ B and PO $\cdots$ B coordination bonds”  
Manabu Hatano, Kazushi Hayashi, Tatsuhiro Sakamoto, Yuma Makino, Kazuaki Ishihara  
*Synlett* **2016**, 27(7), 1061–1067. DOI: 10.1055/s-0035-1561362. (Cluster Preface: Non-Covalent Interactions in Asymmetric Catalysis (by R. J. Phipps)) (Published online: 05.02.2016)
- (218) “Chiral ammonium hypoiodite salt-catalyzed enantioselective oxidative cycloetherification to 2-acyl tetrahydrofurans”  
Muhammet Uyanik, Hiroki Hayashi, Hirokazu Iwata, Kazuaki Ishihara  
*Chem. Lett.* **2016**, 45(3), 353–355. DOI: 10.1246/cl.160004 (Web Released: January 16, 2016)
- (219) “Enantioselective bromocyclization of 2-gernaylphenols induced by chiral phosphite–urea bifunctional catalysts”  
Yasuhiro Sawamura, Yoshihiro Ogura, Hidefumi Nakatsuji, Akira Sakakura, Kazuaki Ishihara  
*Chem. Commun.* **2016**, 52(36), 6068–6071. DOI: 10.1039/C6CC00229C (Inside Back Cover Picture) (First published online 18 Mar 2016)
- (220) “Regioselective 1,4- and 1,6-conjugate additions of Grignard reagent-derived organozinc(II)ates to poly-conjugated esters”  
Hatano, Manabu Hatano, Mai Mizuno, Kazuaki Ishihara  
*Org. Lett.* **2016**, 18(18), 4462–4465. DOI: 10.1021/acs.orglett.6b01774 (Publication Date (Web): September 7, 2016)
- (221) “Enantioselective synthesis of masked benzoquinones using designer chiral hypervalent organoiodine(III) catalysis”  
Muhammet Uyanik, Niiha Sasakura, Masahiro Mizuno, Kazuaki Ishihara  
*ACS Catalysis* **2017**, 7(1), 872–876. DOI: 10.1021/acscatal.6b03380 (Publication Date (Web): December 21, 2016)
- (222) “4,5-Dimethyl-2-iodoxybenzenesulfonic acid-catalyzed highly site-selective oxidation of 2-substituted phenols to 1,2-quinols”  
Muhammet Uyanik, Tatsuya Mutsuga, Kazuaki Ishihara

*Angew. Chem. Int. Ed.* **2017**, *56*(14), 3956–3960. DOI: 10.1002/anie.201612463R1 and 10.1002/ange.201612463R1  
(Version of Record online: 21 FEB 2017)

(223) “Ammonium hypoiodide-catalyzed peroxidative dearomatization of phenols”

Muhammet Uyanik, Kohei Nishioka, Kazuaki Ishihara

*Heterocycles*, **2017**, *95*(2), 1132–1147. DOI: 10.3987/COM-16-S(S)84 (*Masakatsu Shibasaki's Special Issues*)  
(Published online, 31st January, 2017)

(224) “Design of boronic acid–base complexes as reusable homogeneous catalysts in dehydrative condensations between carboxylic acids and amines”

Yanui Lu, Ke Wang, Kazuaki Ishihara

*Asian J. Org. Chem.* **2017**, *6*(9), 1191–1194. DOI: 10.1002/ajoc.201700194 (*Special Issue: 5th Anniversary Board Member Issue, Cover Picture*) (Version of Record online: 17 MAY 2017) (*Synfacts 2017* *13*(12), 1321, Contributors: Yasuhiro Uozumi, Shun Ichii “Direct Amide Condensation by Using Supported Boronates”)

(225) “Enantioselective cycloaddition of styrenes with aldimines catalyzed by a chiral magnesium potassium binaphthyldisulfonate cluster as a chiral Brønsted acid catalyst”

Manabu Hatano, Keisuke Nishikawa, Kazuaki Ishihara

*J. Am. Chem. Soc.* **2017**, *139*(25), 8424–8427. DOI: 10.1021/jacs.7b04795 (Publication Date (Web): May 30, 2017)  
(*Synfacts 2017* *13*(9), 0915–0915, Contributors: Sniekus, V.; da Frota, L. C. R. M. “Chiral Binaphthylsulfonate Cluster Catalyst for Cycloaddition Reaction”)

(226) “Enantioselective conjugate hydrocyanation of α,β-unsaturated *N*-acylpyrroles catalyzed by chiral lithium(I) phosphoryl phenoxide”

Manabu Hatano, Katsuya Yamakawa, Kazuaki Ishihara

*ACS Catal.* **2017**, *7*(10), 6686–6690. DOI: 10.1021/acscatal.7b02551 (Publication Date (Web): August 30, 2017)

Ranked in the Top 6 most read articles in ACS Catalysis based on the previous 30 days-records.

(227) “Chiral hypervalent organoiodine-catalyzed enantioselective oxidative spirolactonization of naphthol derivatives”

Muhammet Uyanik, Takeshi Yasui, Kazuaki Ishihara

*J. Org. Chem.* **2017**, *82*(22), 11946–11953. DOI: 10.1021/acs.joc.7b01941 (Publication Date (Web): September 19, 2017)

(228) “Selenium–iodine cooperative catalyst for chlorocyclization of tryptamine derivatives”

Takahiro Horibe, Shuhei Ohmura, Kazuaki Ishihara

*Org. Lett.* **2017**, *19*(20), 5525–5528. DOI: 10.1021/acs.orglett.7b02613 (Publication Date (Web): September 28, 2017)

(229) “Enantioselective Aza-Friedel-Crafts Reaction of Indoles with Ketimines Catalyzed by Chiral Potassium Binaphthyldisulfonates”

Manabu Hatano, Takuya Mochizuki, Keisuke Nishikawa, Kazuaki Ishihara

*ACS Catal.* **2018**, *8*(1), 349–353. DOI: 10.1021/acscatal.7b03708 (Publication Date (Web): December 4, 2017)

(Letter))

Ranked in the Top 10 most read articles in ACS Catalysis based on the previous 30 days-records (5th January, 2018).

(230) “Metal-free transesterification catalyzed by tetramethylammonium methyl carbonate”

Manabu Hatano, Yuji Tabata, Yurikai Yoshida, Kohei Toh, Kenji Yamashita, Yoshihiro Ogura, Kazuaki Ishihara

*Green Chem.* **2018**, *20*(6), 1193–1198. DOI: 10.1039/C7GC03858E (*Front Cover*) (The article was first published on 13 Feb 2018)

(231) “Boron Tribromide–Assisted Chiral Phosphoric Acid Catalysts for Enantioselective [2+2] Cycloaddition”

Tatsuhiro Sakamoto, Takuya Mochizuki, Yuta Goto, Manabu Hatano, Kazuaki Ishihara

*Chem. Asian J.* **2018**, just accepted. (*Special Issue “Homogeneous Catalysis from Young Investigators in Asia”*) (First published: 30 March 2018)

(232) “Synthesis of 1,1'-spirobiindane-7,7'-disulfonic acid and disulfonimide: Application for catalytic asymmetric amination”

Takumaru Kurihara, Shun Satake, Manabu Hatano, Kazuaki Ishihara, Tatsuhiko Yoshino,\* Shigeki Matsunaga\*

*Chem. Asian J.* **2018**, *13*(17), 2378–2381. DOI: 10.1002/asia.201800341 (*Special Issue “Homogeneous Catalysis from Young Investigators in Asia”*) (First published: 12 April 2018)

(233) “ortho-Substituent Effect on 2,4-Bis(trifluoromethyl)phenylboronic acid-catalyzed dehydrative condensation between carboxylic acids and amines”

Ke Wang, Yanhui Lu, Kazuaki Ishihara\*

*Chem. Commun.* **2018**, *54*(43), 5410–5413. DOI: 10.1039/C8CC02558D (**Inside Front Cover Picture**) (First published on 24 Apr 2018)

(234) “Enantioselective halo-oxy- and halo-azacyclizations induced by chiral amidophosphate catalysts and halo-Lewis acids”

Yanhui Lu, Hidefumi Nakatsuji, Yukimasa Okumura, Lu Yao, and Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2018**, *140*(19), 6039–6043. DOI: 10.1021/jacs.8b02607 (Publication Date (Web): April 30, 2018)

(*Synfacts* **2018** *14*(08), 864, Contributors: Benjamin List, Mathias Turberg “Chiral Amidophosphate-Induced Halooxy- and Haloazacyclizations”)

(235) “Thiourea–I<sub>2</sub> as Lewis base–Lewis acid cooperative catalysts for iodochlorination of alkene with *in situ*-generated I–Cl”

Takahiro Horibe, Yasutaka Tsuji, Kazuaki Ishihara\*

*ACS Catal.* **2018**, *8*(7), 6362–6366. DOI: 10.1021/acscatal.8b01565 (Publication Date (Web): June 7, 2018) (*Synfacts*

**2018** *14*(09), 0976, Contributors: Benjamin List, David Díaz-Oviedo “Cooperative Lewis Base–Lewis Acid Catalysis for Iodochlorination of alkenes”)

(236) “Asymmetric total synthesis of (–)-Maldoxin, a common biosynthetic ancestor of the chloropupukeanin family”

Takahiro Suzuki,\* Soichiro Watanabe, Muhammet Uyanik, Kazuaki Ishihara, Susumu Kobayashi, Keiji Tanino\*

*Org. Lett.* **2018**, *20*(13), 3919–3922. DOI: 10.1021/acs.orglett.8b01502 (Publication Date (Web): June 8, 2018)

(237) “Pentamethylcyclopentadienyl rhodium(III)/chiral disulfonate hybrid catalysis for enantioselective C–H bond functionalization”

Shun Satake, Takumaru Kurihara, Keisuke Nishikawa, Takuya Mochizuki, Manabu Hatano, Kazuaki Ishihara, Tatsuhiko Yoshino,\* and Shigeki Matsunaga\*

*Nat. Catal.* **2018**, *1*(8), 585–591. DOI: 10.1038/s41929-018-0106-5 (Publication Date (Web): July 23, 2018)

(238) “Enantioselective aza-Friedel–Crafts reaction of furan with α-ketimino esters induced by a conjugated double hydrogen bond network of chiral bis(phosphoric Acid) catalysts”

Manabu Hatano, Haruka Okamoto, Taro Kawakami, Kohei Toh, Hidefumi Nakatsuji, Akira Sakakura\* and Kazuaki Ishihara\*

*Chem. Sci.* **2018**, *9*(30), 6361–6367. DOI: 10.1039/C8SC02290A (**Outside Back Cover Picture**) (The article was first published on 25 Jun 2018)

(239) “Chiral pyrophosphoric acid catalysts for the *para*-selective and enantioselective aza-Friedel–Crafts reaction of phenols”

Haruka Okamoto, Kohei Toh, Takuya Mochizuki, Hidefumi Nakatsuji, Akira Sakakura,\* Manabu Hatano,\* Kazuaki Ishihara\*

*Synthesis* **2018**, *50*(23), 4577–4590. DOI: 10.1055/s-0037-1610250

(240) “Chiral supramolecular U-shaped catalysts induce the multiselective Diels–Alder reaction of propargyl aldehyde”

Manabu Hatano, Tatsuhiro Sakamoto, Tomokazu Mizuno, Yuta Goto, Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2018**, *140*(47), 16253–16263. DOI: 10.1021/jacs.8b09974 (Publication Date (Web): November 7, 2018 (Article))

(241) “Regioselective oxidative chlorination of arenols using NaCl and oxone”

Muhammet Uyanik, Naoto Sahara, Kazuaki Ishihara\*

*Eur. J. Org. Chem.* **2019**, (1), 27–31. DOI: 10.1002/ejoc.201801063 (**Very Important Paper, Front Cover Picture**: The article was first published on 8 October 2018)

(242) “Enantioselective [1,3] O-to-C rearrangement: Dearomatization of alkyl 2-allyloxy/benzyloxy-1/3-naphthoates catalyzed by a chiral π–Cu(II) complex”

Lu Yao, Kazuaki Ishihara\*

*Chem. Sci.* **2019**, *10*(8), 2259–2263. DOI: 10.1039/C8SC05601C (**Inside Front Cover, Selected in 2019 Chemical Science HOT Article Collection**) (Publication Date (Web): 10 Jan 2019)

*This paper was ranked 1st in the list of [HOT Chemical Science articles for January (28 Feb 2019)]:*

<http://blogs.rsc.org/sc/2019/02/28/hot-chemical-science-articles-for-january->

[2/?fbclid=IwAR1qju8T2mk4jvoteydk8a16z3lxRbB54JHthvHYjpBZQDiNsG-cnu\\_ZVz8](2/?fbclid=IwAR1qju8T2mk4jvoteydk8a16z3lxRbB54JHthvHYjpBZQDiNsG-cnu_ZVz8)

(243) “Ammonium hypoiodite-catalyzed oxidative dearomatative azidation of arenols”

Muhammet Uyanik, Kohei Nishioka, Kazuaki Ishihara\*

*Chem. Lett.* **2019**, 48(4), 353–356. DOI: <https://doi.org/10.1246/cl.181036>

(244) “Structure and reactivity of aromatic radical cations generated by FeCl<sub>3</sub>”

Takahiro Horibe, Shuhei Ohmura, and Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2019**, 141(5), 1887–1881. DOI: [10.1021/jacs.8b12827](https://doi.org/10.1021/jacs.8b12827) (Publication Date (Web): January 24, 2019)

(245) “Tris(pentafluorophenyl)borane-assisted chiral phosphoric acid catalysts for enantioselective inverse-electron-demand hetero-Diels–Alder reaction of α,β-substituted acroleins”

Manabu Hatano, Tatsuhiro Sakamoto, Kazuaki Ishihara\*

*Asian J. Org. Chem.* **2019**, 8(7), 1061–1066. DOI: [10.1002/ajoc.201900104](https://doi.org/10.1002/ajoc.201900104) (*Special Issue: Heterocyclic Chemistry, Front Cover Picture*: First Published: 06 March 2019). *One of the top 10% most downloaded papers among work published between January 2018 and December 2019.*

(246) “Highly active chiral dilithium(I) binaphthyldisulfonate catalysts for enantio- and chemoselective Strecker-type reactions”

Manabu Hatano, Kosuke Nishio, Takuya Mochizuki, Keisuke Nishikawa, Kazuaki Ishihara\*

*ACS Catal.* **2019**, 9(9), 8178–8196. DOI: [10.1021/acscatal.9b04322](https://doi.org/10.1021/acscatal.9b04322) Publication Date (Web): July 30, 2019

(247) “Enantioselective oxidative coupling reaction of 2-naphthol derivatives catalyzed by chiral diphosphine oxide–iron(II) complexes”

Takahiro Horibe, Keita Nakagawa, Takashi Hazeyama, Kazuaki Takeda, Kazuaki Ishihara\*

*Chem. Commun.* **2019**, 55(91), 13677–13680. DOI: [10.1039/c9cc07834g](https://doi.org/10.1039/c9cc07834g) The article was first published on 17 Oct 2019

(248) “High-performance ammonium hypoiodite/Oxone catalysis for enantioselective oxidative dearomatization of arenols”

Muhammet Uyanik, Takehiro Kato, Naoto Sahara, Outa Katade, Kazuaki Ishihara\*

*ACS Catal.* **2019**, 9(12), 11619–11626. DOI: [10.1021/acscatal.9b04322](https://doi.org/10.1021/acscatal.9b04322) (Publication Date: November 14, 2019)

(249) “Chemoselective oxidative generation of *ortho*-quinone methides and tandem transformations”

Muhammet Uyanik, Kohei Nishioka, Ryutaro Kondo, Kazuaki Ishihara\*

*Nat. Chem.* **2020**, 12(4), 353–362. DOI: [10.1038/s41557-020-0433-4](https://doi.org/10.1038/s41557-020-0433-4) (Publication Date: March 23, 2020)

(250) “Radical cation-induced crossed [2 + 2] cycloaddition of electron-deficient anetholes initiated by iron(III) salt”

Takahiro Horibe, Kei Katagiri, Kazuaki Ishihara\*

*Adv. Synth. Catal.* **2020**, 362(4), 960–963. DOI: [10.1002/adsc.201901337](https://doi.org/10.1002/adsc.201901337) (First Published: 13 December 2019)

(251) “Chemoselective oxidative spiroetherification and spiroamination of arenols using I<sup>+</sup>/Oxone catalysis”

Muhammet Uyanik, Naoto Sahara, Outa Katade, Kazuaki Ishihara\*

*Org. Lett.* **2020**, 22(2), 560–564. DOI: [10.1021/acs.orglett.9b04324](https://doi.org/10.1021/acs.orglett.9b04324) (Publication Date: December 24, 2019)

(252) “Cationic iron(III) salt as an initiator for radical cation-induced [4 + 2] cycloaddition”

Takahiro Horibe, Shuhei Ohmura, Kei Katagiri, Kazuaki Ishihara\*

*Asian J. Org. Chem.* **2020**, 9(3), 395–398. DOI: [10.1002/ajoc.201900749](https://doi.org/10.1002/ajoc.201900749) (First Published: 22 January 2020) (*Special issue: Earth-Abundant Metals in Catalysis* (Guest editors Profs. Laurean Ilies, Stephen Thomas, and Ian Tonks))

(253) “Halogen-bonding interaction between I<sub>2</sub> and N-iodosuccinimide in Lewis base-catalyzed iodolactonization”

Takahiro Horibe, Yasutaka Tsuji, Kazuaki Ishihara\*

*Org. Lett.* **2020**, 22(12), 4888–4892. DOI: [10.1021/acs.orglett.0c01735](https://doi.org/10.1021/acs.orglett.0c01735) (Publication Date: June 2, 2020)

(254) “One-pot tandem Michael addition/enantioselective Conia-ene cyclization mediated by chiral iron(III)/silver(I) cooperative catalysis”

Takahiro Horibe, Masato Sakakibara, Rin Hiramatsu, Kazuki Takeda, Kazuaki Ishihara\*

*Angew. Chem. Int. Ed.* **2020**, 59(38), 16470–16474. DOI: [10.1002/anie.202007180](https://doi.org/10.1002/anie.202007180) and [10.1002/ange.202007180](https://doi.org/10.1002/ange.202007180)

(First published: 05 June 2020)

(255) “Enantioselective 1,4-addition reaction of α,β-unsaturated carboxylic acids with cycloalkanones using cooperative chiral amine–boronic acid catalysts”

Takahiro Horibe, Takashi Hazeyama, Yuta Nakata, Kazuki Takeda, Kazuaki Ishihara\*

*Angew. Chem. Int. Ed.* **2020**, 59(39), 17256–17260. **Hot Paper** DOI: [10.1002/anie.202007639](https://doi.org/10.1002/anie.202007639) (First Published: 22 June 2020)

(256) “Chemo- and enantioselective oxidative α-azidation of carbonyl compounds”

Muhammet Uyanik, Naoto Sahara, Mayuko Tsukahara, Yuhei Hattori, Kazuaki Ishihara\*

- Angew. Chem. Int. Ed.* **2020**, *59*(39), 17110–17117. DOI: [10.1002/anie.202007552](https://doi.org/10.1002/anie.202007552) (First published: 26 June 2020)
- (257) “Enantio- and site-selective  $\alpha$ -fluorination of *N*-acyl-3,5-dimethylpyrazoles catalyzed by chiral  $\pi$ –Cu(II) complexes”
- Kazuaki Ishihara,\* Kazuki Nishimura, Katsuya Yamakawa
- Angew. Chem. Int. Ed.* **2020**, *59*(40), 17641–17647. DOI: [10.1002/anie.202007403](https://doi.org/10.1002/anie.202007403) First published: 07 July 2020
- (258) “Hypoiodite-catalyzed chemoselective tandem oxidation of homotryptamines to peroxy- and epoxytetrahydropyridoindolenines”
- Muhammet Uyanik, Hiroki Tanaka, Kazuaki Ishihara\*
- Org. Lett.* **2020**, *22*(20), 8049–8054. DOI: [10.1021/acs.orglett.0c03001](https://doi.org/10.1021/acs.orglett.0c03001) (Publication Date: September 30, 2020)
- (259) “Multifactor control of vinyl monomer sequence, molecular weight, and tacticity via iterative radical additions and olefin metathesis reactions”
- Masato Miyajima, Kotaro Satoh, Takahiro Horibe, Kazuaki Ishihara, Masami Kamigaito\*
- J. Am. Chem. Soc.* **2020**, *142*(44), 18955–18962. *Supplementary Cover* DOI: [10.1021/jacs.0c09289](https://doi.org/10.1021/jacs.0c09289) (Publication Date (Web): October 15, 2020)
- (260) “Enantioselective aza-Friedel–Crafts reaction of indoles and pyrroles catalyzed by chiral  $C_1$ -symmetric bis(phosphoric acid)”
- Manabu Hatano, Kohei Toh, Kazuaki Ishihara\*
- Org. Lett.* **2020**, *22*(24), 9614–9620. DOI: [10.1021/acs.orglett.0c03662](https://doi.org/10.1021/acs.orglett.0c03662) (Publication Date: December 9, 2020) (*Synfacts* **2021** *17*(03), 0346, Contributors: Hisashi Yamamoto and Wataru Muramatsu “Brønsted-acid-catalyzed Enantioselective Aza-Friedel–Crafts Reaction” DOI: [10.1055/s-0040-1706139](https://doi.org/10.1055/s-0040-1706139))
- (261) “ $I^+$ /TBHP catalysis for the tandem oxidative cyclization to indolo[2,3-b]quinolines”
- Muhammet Uyanik, Hiroki Tanaka, Kazuaki Ishihara\*
- Asian J. Org. Chem.* **2021**, *10*(1), 164–169. DOI: [10.1002/ajoc.202000570](https://doi.org/10.1002/ajoc.202000570) (Publication Date (Web): November 30, 2020)
- (262) “Reusable silica-supported ammonium BINSate catalysts for enantio- and diastereoselective Friedel–Crafts-type double aminoalkylation of *N*-alkylpyrroles with aldimines”
- Manabu Hatano,\* Xue Zhao, Takuya Mochizuki, Kyogo Maeda, Ken Motokura,\* Kazuaki Ishihara\*
- Asian J. Org. Chem.* **2021**, *10*(2), 360–365. DOI: [10.1002/ajoc.202000603](https://doi.org/10.1002/ajoc.202000603) (Publication Date (Web): December 13, 2020)
- (263) “Chemoselective transesterification of methyl (meth)acrylates catalyzed by sodium(I) or magnesium(II) aryloxides”
- Jie Qi Ng, Hiro Arima, Takuya Mochizuki, Kohei Toh, Kai Matsui, Manussada Ratanasak, Jun-Ya Hasegawa\*, Manabu Hatano\*, Kazuaki Ishihara\*
- ACS Catal.* **2021**, *11*(1), 199–207. DOI: [10.1021/acscatal.0c04217](https://doi.org/10.1021/acscatal.0c04217) (Publication Date: December 16, 2020)
- (264) “Synthesis of chiral organoiodine catalyst for enantioselective oxidative dearomatization reactions: *N,N'*-(2*S,2'S*)-(2-iodo-1,3-phenylene)bis(oxy)bis(propane-2,1-diyl)bis(2,4,6-trimethylbenzamide)”
- Muhammet Uyanik, Shinichi Ishizaki and Kazuaki Ishihara\*
- Org. Synth.* **2021**, *98*, 1–27. DOI: [10.15226/orgsyn.098.0001](https://doi.org/10.15226/orgsyn.098.0001) (Published on the Web 2/25/2021)
- (265) “Chiral organoiodine-catalyzed enantioselective oxidative dearomatization of phenols”
- Muhammet Uyanik, Shinichi Ishizaki, and Kazuaki Ishihara\*
- Org. Synth.* **2021**, *98*, 28–50. DOI: [10.15227/orgsyn.098.0028](https://doi.org/10.15227/orgsyn.098.0028) (Published on the Web 2/27/2021)
- (266) “Insight into the Mechanism of the Acylation of Alcohols with Acid Anhydrides Catalyzed by Phosphoric Acid Derivatives”
- Hiroyuki Hayashi, Shotaro Yasukochi, Tatsuhiro Sakamoto, Manabu Hatano,\* Kazuaki Ishihara\*
- J. Org. Chem.* **2021**, *86*(7), 5197–5212. DOI: [10.1021/acs.joc.1c00102](https://doi.org/10.1021/acs.joc.1c00102) (Publication Date: March 15, 2021)
- (267) “Enantio- and diastereoselective carbonyl-ene cyclization–acetalization tandem reaction catalyzed by tris(pentafluorophenyl)borane-assisted chiral phosphoric acids”
- Hideyuki Ishihara, Jianhao Huang, Takuya Mochizuki, Manabu Hatano,\* Kazuaki Ishihara\*
- ACS Catal.* **2021**, *11*(10), 6121–6127. DOI: [10.1021/acscatal.1c01242](https://doi.org/10.1021/acscatal.1c01242) (Publication Date: May 6, 2021)
- (268) “Radical cation [4+2] cycloaddition of non-conjugated tetrasubstituted alkenes by an  $FeCl_3/AgSbF_6$  Co-Initiator”
- Shuhei Ohmura, Ryosuke Isogai, Kazuaki Ishihara\*
- Asian J. Org. Chem.* **2021**, *10*(10), 2534–2537. *Special Collection* DOI: [10.1002/ajoc.202100473](https://doi.org/10.1002/ajoc.202100473) (Publication Date: 26 August 2021)

- (269) "Oxidative Ritter-type chloroamidation of alkenes using NaCl and Oxone"  
 Takehiro Kato, Yuya Okada, Yuto Fujii, Muhammet Uyanik,\* Kazuaki Ishihara\*  
*Asian J. Org. Chem.* **2021**, *10*(10), 2907–2910. **Special Collection** DOI: [10.1002/ajoc.202100575](https://doi.org/10.1002/ajoc.202100575) (Publication Date: 21 September 2021)
- (270) "Hypoiodite-catalysed oxidative homocoupling of arenols and tandem oxidation/cross-coupling of hydroquinones with arenes"  
 Muhammet Uyanik, Dai Nagata, Kazuaki Ishihara\*  
*Chem. Commun.* **2021**, *57*(88), 11625–11628. **HOT article** DOI: [10.1039/D1CC05171G](https://doi.org/10.1039/D1CC05171G) (Publication Date: 21 Oct 2021)
- (271) "Cp<sup>\*</sup>Rh(III)/Chiral Disulfonate/CuOAc Catalyst System for the Enantioselective Intramolecular Oxyamination of Alkenes"  
 Jumpei Hirose, Takumi Wakikawa, Shun Satake, Masashiro Kojima, Manabu Hatano, Kazuaki Ishihara, Tatsuhiko Yoshino,\* Shigeki Matsunaga\*  
*ACS Catal.* **2021**, *11*(24), 15187–15193. DOI: [10.1021/acscatal.1c04699](https://doi.org/10.1021/acscatal.1c04699) (Publication Date (Web): December 7, 2021)
- (272) "π–Cu(II)–π complex as an extremely active catalyst for enantioselective α-halogenation of *N*-acyl-3,5-dimethylpyrazoles"  
 Kazuaki Nishimura, Yanzhao Wang, Yoshihiro Ogura, Jun Kumagai, Kazuaki Ishihara\*  
*ACS Catal.* **2022**, *12*(2), 1012–1017. DOI: [10.1021/acscatal.1c05500](https://doi.org/10.1021/acscatal.1c05500) (Publication Date: January 3, 2022)
- (273) "Thorpe–Ingold effect on high-performance chiral π–copper(II) catalyst"  
 Kazuaki Nishimura, Kazuaki Ishihara\*  
*Synlett* **2022**, *33*(6), 585–588. DOI: [10.1055/a-1750-8481](https://doi.org/10.1055/a-1750-8481) (Publication Date: January 26, 2022)
- (274) "Hypoiodite-catalyzed oxidative umpolung of indoles for enantioselective dearomatization"  
 Hiroki Tanaka, Naoya Ukegawa, Muhammet Uyanik,\* Kazuaki Ishihara\*  
*J. Am. Chem. Soc.* **2022**, *144*(13), 5756–5761. DOI: [10.1021/jacs.2c01852](https://doi.org/10.1021/jacs.2c01852) (Publication Date (Web): March 23, 2022)
- (275) "Multiselective Diels–Alder reaction of α-arylacroleins catalyzed by boron tribromide-assisted chiral phosphoric acids"  
 Kai Matsui, Kohei Toh, Manabu Hatano\*, and Kazuaki Ishihara\*  
*Org. Lett.* **2022**, *24*(35), 6483–6488. DOI: [10.1021/acs.orglett.2c02747](https://doi.org/10.1021/acs.orglett.2c02747) (Publication Date: August 26, 2022)
- (276) "Chiral π–Cu(II) catalysts for the enantioselective α-amination of *N*-acyl-3,5-dimethylpyrazoles"  
 Kazuaki Nishimura, Yoshihiro Ogura, Kazuki Takeda, Weiwei Guo, and Kazuaki Ishihara\*  
*Org. Lett.* **2022**, *24*(41), 7685–7689. DOI: [10.1021/acs.orglett.2c03249](https://doi.org/10.1021/acs.orglett.2c03249) (Publication Date: October 10, 2022)  
 (Highlighted by *Synfacts* **2023**, *19*(01), 0105, Contributors: Hisashi Yamamoto and Isai Ramakrishna "Enantioselective Synthesis of α-Amino Acid Derivatives" DOI: [10.1055/s-0042-1752370](https://doi.org/10.1055/s-0042-1752370) (Published online: 16.12.2022))
- (277) "Bulky magnesium(II) and sodium(I) bisphenoxide catalysts for chemoselective transesterification of methyl (meth)acrylates"  
 Xue Zhao, Manussada Ratanasak, Kazumasa Kon, Jun-ya Hasegawa\* and Kazuaki Ishihara\*  
*Chem. Sci.* **2023**, *14*(3), 566–572. DOI: [10.1039/D2SC05413B](https://doi.org/10.1039/D2SC05413B) (The article was first published on 28 Nov 2022)
- (278) "Enantioselective aromatic Claisen rearrangement of allyl 2-naphthyl ethers catalyzed by π–Cu(II) complexes"  
 Lu Yao, Kazuaki Takeda, Kaori Ando,\* and Kazuaki Ishihara\*  
*Chem. Sci.* **2023**, *14*, 2441–2446. DOI: [10.1039/D2SC06771D](https://doi.org/10.1039/D2SC06771D) (The article was first published on 20 JAN 2023)
- (279) "Catalytic Site-, Diastereo-, and Enantioselective Cascade Iodocyclizaton of 2-Geranylarenols"  
 Yasutaka Tsuji, Kazumasa Kon, Takahiro Horibe and Kazuaki Ishihara\*  
*Chem. Asian J.* **2023**, accepted. DOI: [10.1002/asia.202300019](https://doi.org/10.1002/asia.202300019) (The article was first published on 6 Feb., 2023)
- (280) "1,3-Migrative ring expansion of spiroindolenines to azepino[3,4-*b*]indoles"  
 Hiroki Tanaka, Toshihiro Yasui, Muhammet Uyanik,\* Kazuaki Ishihara\*  
*Org. Lett.* **2023**, ASAP. (Front Cover Art). DOI: [10.1021/acs.orglett.3c00207](https://doi.org/10.1021/acs.orglett.3c00207) (Publication Date: February 27, 2023)
- (281) "Catalyst-substrate helical character matching determines the enantioselectivity in the Ishihara-type iodoarenes catalyzed asymmetric Kita-dearomative spirolactonization"  
 Hanliang Zheng, Liu Cai, Ming Pan, Muhammet Uyanik, Kazuaki Ishihara, and Xiao-Song Xue\*  
*J. Am. Chem. Soc.* **2023**, *145*(13), 7301–7312. DOI: [10.1021/jacs.2c13295](https://doi.org/10.1021/jacs.2c13295) (Publication Date: March 20, 2023)
- (282) "A Lewis base–silyl Lewis acid cooperative catalyst for the iodochlorination of tetrasubstituted alkenes"  
 Keigo Nagami, Shuhei Ohmura,\* Kazuaki Ishihara\*

*Asian J. Org. Chem.* **2023**, *12*(8), e202300228 (4 pages). (Special selection: Keiji Maruoka's 70<sup>th</sup> Birthday) DOI: [10.1002/ajoc.202300228](https://doi.org/10.1002/ajoc.202300228) (First published: 25 May 2023)

(283) "Highly enantioselective radical cation [2+2] and [4+2] cycloadditions by chiral iron(III) photoredox catalysis"

Shuhei Ohmura, Kei Katagiri, Haruna Kato, Takahiro Horibe, Sho Miyakawa, Jun-ya Hasegawa, Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2023**, *145*(28), 15054–15060. DOI: [10.1021/jacs.3c04010](https://doi.org/10.1021/jacs.3c04010) (Publication Date: July 5, 2023)

(284) "Hypoiodite-catalyzed oxidative  $\alpha$ -C–N coupling of ketones with imides and azoles"

Mayuko Tsukahara, Muhammet Uyanik,\* and Kazuaki Ishihara\*

*Adv. Synth. Catal.* **2023**, *365*(16), 2724–2729. **Very Important Publication** DOI: 10.1002/adsc.202300716 (Version of record online: August 1, 2023)

(285) "Chiral macrocyclic catalysts for the enantioselective addition of lithium acetylides to ketones"

Kenji Yamashita, Yuji Tabata, Katsuya Yamakawa, Takuya Mochizuki, Kai Matsui, Manabu Hatano,\* Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2023**, *145*(48), 26238–26248. **Supplementary Cover Art** DOI: 10.1021/jacs.3c08905 (Publication Date: November 4, 2023)

(286) "Tandem Isomerization  $\alpha,\beta$ -Site-Selective and Enantioselective Addition Reactions of *N*-(3-Butynoyl)-3,5-dimethylpyrazole Induced by Chiral Cu(II) Catalysts"

Weiwei Guo, Masahiro Hori, Yoshihiro Ogura, Kazuki Nishimura, Kosuke Oki, Tomoyuki Ikai, Eiji Yashima, Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2023**, *145*(49), 27080–27088. **OPEN ACCESS** DOI: 10.1021/jacs.3c10820 (Publication Date: November 30, 2023)

**Addition/Correction** "Correction to Tandem Isomerization/ $\alpha,\beta$ -Site-Selective and Enantioselective Addition Reactions of *N*-(3-Butynoyl)-3,5-dimethylpyrazole Induced by Chiral Cu(II) Catalysts"

Weiwei Guo, Masahiro Hori, Yoshihiro Ogura, Kazuki Nishimura, Kosuke Oki, Tomoyuki Ikai, Eiji Yashima, Kazuaki Ishihara\*

*J. Am. Chem. Soc.* **2024**, *146*(49), 11002–11004. **OPEN ACCESS** DOI: 10.1021/jacs.4c02832. (Publication Date: April 2, 2024)

(287) "Dehydrative condensation of carboxylic acids with amines promoted by HBF<sub>4</sub>/MS 5A"

Shuhei Ohmura, Tatsuya Ishikawa, Qianchun Huang, Takahiro Horibe, Kazuaki Ishihara\*

*Asian J. Org. Chem.* **2024**, *13*, e202300660 (4 pages). DOI: [10.1002/ajoc.202300660](https://doi.org/10.1002/ajoc.202300660) (First published: 29 January 2024)

(288) "Effect of the U-shaped cavity of conformationally flexible chiral Lewis-acidic boron-based catalysts in multiselective Diels–Alder reactions"

Tatsuhiro Sakamoto, Kohei Toh, Kai Matsui, Manabu Hatano,\* Kazuaki Ishihara\*

*Org. Lett.* **2024**, accepted.

### Reviews and Books

(1) "Chiral synthon and asymmetric synthesis"

Kazuaki Ishihara, Hisashi Yamamoto

*Kagaku* **1990**, *45*, 56–57.

(2) "Asymmetric synthesis using organometallic reagents. Boron"

Kazukai Ishihara, Hisashi Yamamoto

*Kikan Kagaku Sosetsu* **1993**, *19*, 3–16.

(3) "Chiral (acyloxy)borane (CAB) catalyst. General but highly selective catalyst for asymmetric reactions"

Kazuaki Ishihara, Qingzhi Gao, Hisashi Yamamoto

*Kagaku* **1994**, *49*, pp 140–141.

(4) "Designer Lewis acids for selective organic synthesis"

Hisashi Yamamoto, Keiji Maruoka, Kaziaki Ishihara

*J. Synth. Org. Chem., Jpn.* **1994**, *52*(11), 912–922. DOI: 10.5059/yukigoseikyokaishi.52.912 (Nov.).

(5) "Chiral Lewis acid catalysts"

Kazuaki Ishihara, Hisashi Yamamoto

*Advances in Catalytic Processes*; JAI Press Inc.: Connecticut, 1995; Vol. 1, pp 29–59.

(6) "Highly stereoselective synthesis of  $\beta$ -amino esters via double stereodifferentiation"

Kazuaki Ishihara, Kouji Hattori, Hisashi Yamamoto

In *Enantioselective Synthesis of  $\beta$ -Amino Acids*; Juaristi, E., Ed.; WILEY-VCH: New York, N. Y., 1997; Chap. 9, pp 159–185.

(7) "Asymmetric synthesis with chiral Lewis acid catalyst"

Kazuaki Ishihara, Hisashi Yamamoto

*CatTech* **1997**, 51–62.

(8) "Asymmetric protonation of enol derivatives"

Akira Yanagisawa, Kazuaki Ishihara, Hisashi Yamamoto

*Synlett* **1997**, (5), 411-420. DOI: 10.1055/s-1997-6131 (May)

(9) "Combination of Lewis acid and Brønsted acid"

Kazuaki Ishihara

*Kagaku to Kogyo (Tokyo)* **1997**, 50(10), 1489-1491.

(10) "Recent developments of arylboron compounds as Lewis acid catalysts"

Hideki Kurihara, Kazuaki Ishihara, Hisashi Yamamoto

*J. Synth. Org. Chem., Jpn.* **1998**, 56(1), 61-69. DOI: 10.5059/yukigoseikyokaishi.56.45 (Jan.)

(11) "Designer Lewis acids for selective organic synthesis"

Hisashi Yamamoto, Akira Yanagisawa, Kazuaki Ishihara, Susumu Saito

*Pure & Appl. Chem.* **1998**, 70(8), 1509-1512. DOI: 10.1351/pac199870081509 (Aug.)

(12) "Boron reagents"

Kazuaki Ishihara

In *Lewis Acid Reagents*; Yamamoto, H., Ed.; Oxford University Press: Oxford, UK, 1999; Chap. 3, pp 31-63.

(13) "Arylboron compounds as acid catalysts in organic synthetic transformations"

Kazuaki Ishihara, Hisashi Yamamoto

*Eur. J. Org. Chem.* **1999**, (3), 527-538.

DOI: 10.1002/(SICI)1099-0690(199903)1999:3<527::AID-EJOC527>3.0.CO;2-R (Feb. 10)

(14) "Achiral B(III) Lewis Acids"

Kazuaki Ishihara

In *Lewis Acids in Organic Synthesis*; Yamamoto, H., Ed.; WILEY-VCH: New York, N. Y., 2000; Chap. 4, Vol. 1, pp 89-133.

(15) "Chiral B(III) Lewis Acids"

Kazuaki Ishihara

In *Lewis Acids in Organic Synthesis*; Yamamoto, H., Ed.; WILEY-VCH: New York, N. Y., 2000; Chap. 5, Vol. 1, pp 135-190.

(16) "Sn(II) and Sn(IV) Lewis Acids"

Kazuaki Ishihara

In *Lewis Acids in Organic Synthesis*; Yamamoto, H., Ed.; WILEY-VCH: New York, N. Y., 2000; Chap. 9, Vol. 1, pp 395-452.

(17) "Sb(III) and Sb(V) Lewis Acids"

Kazuaki Ishihara

In *Lewis Acids in Organic Synthesis*; Yamamoto, H., Ed.; WILEY-VCH: New York, N. Y., 2000; Chap. 11, Vol. 2, pp 8523-541.

(18) "Development of dehydrative condensation catalyst"

Kazuaki Ishihara, Hisashi Yamamoto

*Kagaku* **2001**, 56(1), pp 64-65.

(19) "Arylboron Catalysts for Stereoselective Organic Transformations"

Kazuaki Ishihara, Hisashi Yamamoto

In *Organoboranes for Syntheses*; Ramachandran, P. V.; Brown, H. C., Eds.; American Chemical Society: Washington, DC, 2001; Chap. 8, pp 108-121.

(20) "Evaluation system for advanced waste and emission management"

Chikafumi Yamauchi, Hideaki Itoh, Toshiharu Fujisawa, Hitoki Matsuda, Arata Katayama, Takao Tsunekawa, Toyofumi Saito, Kizuka Tokuji, Kazuaki Ishihara

*Haikubutsu Gakkaishi* **2001**, 12(3), 183-186. DOI: 10.3985/wmr.12.183.

(21) "ルイス酸を用いるエステル縮合及びアミド縮合反応の開発(Development of ester condensation and amide condensation reactions using Lewis acid)"

石原一彰、山本 尚

化学と工業(*Kagaku to Kogyo (Tokyo, Japan)*) **2001**, 54(9), 1061-1063.

(22) "原子効率の高いエステル縮合及びアミド縮合反応の開発"

石原一彰、山本 尚

共栄(社報、共栄社化学株式会社) **2002**, (113), 23–38.

(23) “Chiral proton donor reagents: Tin tetrachloride-coordinated optically active banaphthol derivatives”

Hideaki Ishibashi, Kazuaki Ishihara, Hisashi Yamamoto

*Chem. Rec.* **2002**, 2(3), 177–188. DOI: 10.1002/tcr.10020 (June 10)

(24) “スーパーリイス酸、スーパープレンステッド酸触媒の設計”

石原一彰、山本 尚

*TCIメール* **2002**, No. 115, 2–26.

(25) “フルオラスケミストリーの新展開(New development in fluorous chemistry)”

石原一彰

化学と工業(*Kagaku to Kogyo (Tokyo, Japan)*) **2002**, 55(8), 865–868.

(26) “フッ素特性を活かした触媒開発 —フッ素系溶媒を使用しない[固／液] フルオラス二相系への新展開—(Development of catalyst utilizing fluorine characteristics)”

石原一彰、山本 尚

化学(*Kagaku (Kyoto, Japan)*) **2002**, 57(8), 30–33.

(27) “環境調和型高効率有機反応プロセスへの転換(Conversion to green and efficient organic reaction processes)”

石原一彰

化学工業(*Chemical Engineering*) **2003**, 54(1), 28–34.

(28) “高効率新規リイス酸触媒による重合(Polymerization catalyzed by highly efficient novel Lewis acid)”

石原一彰

高分子(*Polymer*) **2003**, 52(4), 272.

(29) “環境調和型触媒の高効率有機合成への応用(Application of environmentally friendly-type catalyst to highly effective organic synthesis)”

石原一彰

ファインケミカル(*Fine Chemical*) **2003**, 32(20), 21–34.

(30) “Boron and silicon Lewis acids for Mukaiyama aldol reactions”

Kazuaki Ishihara, Hisashi Yamamoto

In *Modern Aldol Reactions*, Mahrwald Rainer, Ed.; Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany, 2004, 2, pp 25–28. DOI:10.1002/9783527619566.ch9

(31) “Liquid/solid catalyst-recycling method without fluorous solvents”

Kazuaki Ishihara, Hisashi Yamamoto

In *Handbook of Fluorous Chemistry*, John A. Gladysz, Dennis P. Curran, Istvan T. Horvath, Eds.; Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany, 2004, pp 350–359. DOI:10.1002/3527603905.ch10r

(31) “Liquid/solid catalyst-recycling method without fluorous solvents”

Kazuaki Ishihara, Hisashi Yamamoto

In *Multiphase Homogeneous Catalysis* **2005**, 1, 394–402.

(32) “3,5-Bis(perfluorodecyl)phenylboronic acid. An easily recyclable direct amide condensation catalyst.”

Kazuaki Ishihara, Hisashi Yamamoto

In *Handbook of Fluorous Chemistry*, John A. Gladysz, Dennis P. Curran, Istvan T. Horvath, Eds.; Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany, 2004, pp 382–386.

(33) “Fluorous-tagged tetrafluorophenylbis(triflyl)methane. An organic solvent-swellable and strong bronsted acid catalyst.”

Kazuaki Ishihara, Hisashi Yamamoto

In *Handbook of Fluorous Chemistry*, John A. Gladysz, Dennis P. Curran, Istvan T. Horvath, Eds.; Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany, 2004, pp 386–389.

(34) “(*R*<sup>\*</sup>,*R*<sup>\*</sup>)- $\alpha$ -(2,6-Diisopropoxybenzoyloxy)-5-oxo-1,3,2-dioxaborolane-4-acetic acid

Kazuaki Ishihara, Hisashi Yamamoto

In *Chiral Reagents for Asymmetric Synthesis—Handbook of Reagents for Organic Synthesis*, Paquette, L. A., Ed.; John Wiley & Sons Inc.: New York, 2003, pp 230–232.

(35) “(*R*)-2-Hydroxy-2'-methoxy-1,1'-binaphthyl”

Kazuaki Ishihara, Hisashi Yamamoto

In *Chiral Reagents for Asymmetric Synthesis—Handbook of Reagents for Organic Synthesis*, Paquette, L. A., Ed.; John Wiley & Sons Inc.: New York, 2003, pp 365–370.

(36) “6.1.11 Product subclass 11: aryloxy-and alkoxyboranes (including protecting groups)”

Kazuaki Ishihara, Hisashi Yamamoto

In *Science of Synthesis, Organometallics, Boron Compounds*, Kaufmann, D. E. and Matteson, D. S., Eds.; Houben-Weyl Methods of Molecular Transformations, Vol. 6, Georg Thieme Verlag: Stuttgart, 2005, pp. 403–422.

(37) “6.1.12 Product subclass 12: aryloxy-and alkoxyborates”

Kazuaki Ishihara, Hisashi Yamamoto

In *Science of Synthesis, Organometallics, Boron Compounds*, Kaufmann, D. E. and Matteson, D. S., Eds.; Houben-Weyl Methods of Molecular Transformations, Vol. 6, Georg Thieme Verlag: Stuttgart, 2005, pp. 423–436.

(38) “6.1.13 Product subclass 13: peroxyboranes”

Kazuaki Ishihara, Hisashi Yamamoto

In *Science of Synthesis, Organometallics, Boron Compounds*, Kaufmann, D. E. and Matteson, D. S., Eds.; Houben-Weyl Methods of Molecular Transformations, Vol. 6, Georg Thieme Verlag: Stuttgart, 2005, pp. 437–454.

(39) “ヒスチジン骨格を利用した小分子人工酵素の設計(Design of small molecular artificial enzyme using histidine frame)”

小杉裕士, 石原一彰

化学 (Chemistry (Kyoto, Japan)) **2005**, 60(4), 72–73.

(40) “Organoboronic acids and organoborinic acids as Brønsted–Lewis acid catalysts in organic synthesis”

Kazuaki Ishihara

In *Boronic Acids*, Dennis G. Hall Ed.; Wiley–VCH Verlag, GmbH & Co. KGaA, Weinheim, 2005, pp. 377–408. DOI: 10.1002/352760548.ch10

(41) “第III編 触媒・その他への応用 第3章 再利用可能な酸触媒の設計”

石原一彰

フルオラスクエミストリー, 監修: 大寺純蔵, シーエムシー出版, 2005, pp. 161–169.

(42) “ホウ素化合物を触媒に用いる低環境負荷型脱水縮合反応の開発”

石原一彰

*Organic Square* **2006**, No. 16, 1–4.

(43) “疎水機能をもつエステル脱水縮合触媒の設計”

石原一彰

化学工業 **2006**, 57(6), 426–430 (出版: 化学工業社).

(44) “低環境負荷型触媒の脱水反応プロセスの開発(Development of environmentally benign catalytic dehydration process)”

坂倉彰, 石原一彰

有機合成化学協会誌 **2006**, 64(6), 651–663 (J. Synth. Org. Chem. Jpn). DOI: 10.5059/yukigoseikyokaishi.64.651 (Jun.).

(45) “第三級アルコール合成のブレークスルー –アート錯体を用いたケトンへのGrignard試薬の高効率的付加反応(Breakthrough in tertiary alcohol synthesis. Highly efficient addition of a Grignard reagent to a ketone using an ate complex)”

波多野学, 石原一彰

化学(Chemitsry (Kyoto, Japan)) **2006**, 61(11), 68–69.

(46) “第10章 酸・塩基複合型キラル有機分子触媒触媒の設計(Design of acid base composite type highly active chiral organic molecular catalyst)”

石原一彰

有機分子触媒の新展開, 監修: 柴崎正勝, シーエムシー出版, 2006, pp. 126–136.

(47) “Recent progress in selective additions of organometal reagents to carbonyl compounds”

Manabu Hatano, Takashi Miyamoto and Kazuaki Ishihara

*Curr. Org. Chem.* **2007**, 11(2), 127–157. DOI:10.2174/138527207779316453 (Jan.).

(48) 第4章 材料プロセッシングへの応用、4.1自然に学ぶ新物質・新材料の合成、“4.1.1 はじめに”及び“4.1.2 酵素を凌駕する人工小分子触媒の開発”

石原一彰

自然に学ぶ材料プロセッシングの創成、名古屋大学21世紀COE「自然に学ぶ材料プロセッシングの創成」教科書編集委員会編、三共出版、2007, pp. 207–211.

(49) “究極のアルキル化剤の創製に挑む 効率的な第三級アルコール合成反応の開発(Challenge to ultimate preparation of alkylation agent. Development of effective tertiary alcohol synthetic reaction)”

波多野学、鈴木伸治、石原一彰

化学(*Chemistry (Kyoto, Jpn)*) **2007**, 62(3), 16–20.

(50) “Design of highly functional small-molecule catalysts and related reactions based on acid–base combination chemistry”

Kazuaki Ishihara, Akira Sakakura, Manabu Hatano

*Synlett* **2007**, (5), 686–703. DOI: 10.1055/s-2007-970776 (Mar. 16)

(51) “Chiral Brønsted/Lewis acid catalysts”

Kazuaki Ishihara and Hisashi Yamamoto

In *New Frontiers in Asymmetric catalysis*, Koichi Mikami and Mark Lautens, Eds.; John Wiley & Sons, Inc., Hoboken, New Jersey, 2007, pp. 359–381. DOI: 10.1002/9780470098004.ch12

(52) “第17章 イオン液体を触媒の支持体として用いる脱水縮合反応(Dehydration condensation reaction using ionic liquid as the support medium of catalyst)”

石原一彰

固体化触媒のルネッサンス(*Koteika Syokubai no Runessansu*), 監修: 小林修, 小山田秀和, シーエムシー出版, 2007, pp. 224–238.

(53) “Enantioselective biomimetic polyene cyclization of polyprenoids Long-sought enantioselective reaction induced by a “chiral halonium ion”

Akira Sakakura, Kazuaki Ishihara

*Chimica Oggi–Chemistry Today* **2007**, 25(5), 9–12 (Suppl.). (Sep.).

(54) “Rational design of minimal artificial Diels–Alderases based on copper(II) cation–aromatic π attractive interaction”

Kazuaki Ishihara, Makoto Fushimi, Matsujiro Akakura

*Acc. Chem. Res.* **2007**, 40(10), 1049–1055. DOI: 10.1021/ar70083a (July 28)

(55) “Mg(II), Ca(II), and Zn(II) Lewis Acids”

Manabu Hatano, Kazuaki Ishihara

In *Acid Catalysis in Modern Organic Synthesis*, Vol. 1, Hisashi Yamamoto, Kazuaki Ishihara Eds.; Wiley–VCH Verlag, GmbH & Co. KGaA, Weinheim, 2008, pp. 135–186.

(56) *Acid Catalysis in Modern Organic Synthesis*, Vols. 1, 2, Hisashi Yamamoto, Kazuaki Ishihara Eds.; Wiley–VCH Verlag, GmbH & Co. KGaA, Weinheim, 2008.

(57) “有機金属求核剤の炭素–金属結合活性化を基盤とする酸・塩基複合触媒システムの開発(Development of highly efficient acid-base combination catalyses based on carbon-metal bonds activation in organometallic reagents)”  
波多野学, 石原一彰

有機合成化学協会 **2008**, 66(6), 564–577 (J. Synth. Org. Chem. Jpn). DOI: 10.5059/yukigoseikyokaishi.66.564 (Jun.).

(58) “Catalytic enantioselective organozinc addition toward optically active tertiary alcohol synthesis”

Manabu Hatano, Kazuaki Ishihara

*Chem. Rec.* **2008**, 8(3), 143–155. DOI: 10.1002/tcr.20146 (June 18)

(59) “Recent progress in the catalytic synthesis of tertiary alcohols from ketones with organometallic reagents”

Manabu Hatano, Kazuaki Ishihara

*Synthesis* **2008**, (11), 1647–1675. DOI: 10.1055/s-2008-1067046 (Jun. 2)

(60) “高効率エステル縮合反応の開発(Development of highly efficient synthetic catalytic reaction of ester)”

石原一彰

塗装工学(*Toso Kogaku*) **2008**, 43(8), 274–286.

(61) “Dehydrative condensation catalyses”

Kazuaki Ishihara

*Tetrahedron* **2009**, 65(6), 1085–1109 (*Tetrahedron Report*). DOI: 10.1016/j.tet.2008.11.004 (Feb. 7)

(62) “Hypervalent iodine-catalyzed oxidation of alcohols”

Muhammet Uyanik, Kazuaki Ishihara

*Chem. Commun.* **2009**, (16), 2086–2099 (**Feature article: Rank in the top ten cited Feature Articles of Chemical Communications**). DOI: 10.1039/b823399c (Mar. 6)

(63) “Rational design of dynamic ammonium salt catalysts towards more flexible and selective function”  
Kazuaki Ishihara

*Proc. Jpn. Acad., Ser. B* **2009**, 85(8), 290–313. DOI: 10.2183/pjab.85.290 (Oct.).

(64) “11章 酸塩基複合触媒 付加環化反応を中心として”  
坂倉彰, 石原一彰

「化学フロンティア21、進化を続ける有機触媒 有機合成を革新する第三の触媒」, pp. 128–135, 丸岡啓二編, 化学同人, 2009年7月30日発行.

(65) “Organoammonium salt-catalyzed enantioselective cycloaddition reactions with  $\alpha$ -(acyloxy)- or  $\alpha$ -(*N,N*-diacylamino)acroleins”

Akira Sakakura, Kazuaki Ishihara

*Bull Chem. Soc. Jpn.* **2010**, 83(4), 313–322. DOI: 10.1246/bcsj.20090345 (Apr. 15)

(66) “No. 140  $\alpha$ -置換型アクロレインの不斉付加環化反応(Asymmetric cycloaddition of  $\alpha$ -substituted acroleins)”  
石原一彰

「使える有機合成反応241実践ガイド」, pp. 282–283, 丸岡啓二, 野崎京子, 石井康敬, 大寺純蔵, 富岡清編著, 化学同人, 2010年4月1日.

(67) “No. 148 1,3-ジケトンの直截的不斉Mannich反応(Direct asymmetric Mannich reaction of 1,3-diketones)”  
石原一彰

「使える有機合成反応241実践ガイド」, pp. 298–299, 丸岡啓二, 野崎京子, 石井康敬, 大寺純蔵, 富岡清編著, 化学同人, 2010年4月1日.

(68) “No. 218 アルコールの酸化反応(Oxidation of alcohols)”

石原一彰

「使える有機合成反応241実践ガイド」, pp. 441–443, 丸岡啓二, 野崎京子, 石井康敬, 大寺純蔵, 富岡清編著, 化学同人, 2010年4月1日.

(69) “No. 240 ラセミカルボン酸の不斉エステル反応(Asymmetric esterification of racemic carboxylic acids)”  
石原一彰

「使える有機合成反応241実践ガイド」, pp. 486–487, 丸岡啓二, 野崎京子, 石井康敬, 大寺純蔵, 富岡清編著, 化学同人, 2010年4月1日.

(70) “酸塩基複合触媒(Acid-base combined catalyses)”

石原一彰

ファインケミカル(*Fine Chemical*) **2010**, 139(8), 33–41, シーエムシー出版

(71) “プロセス化に耐えうるエステル化及びアミド合成の開発(Development of ester- and amide synthetic method toward process chemistry)”

石原一彰

ファルマシア(*Pharmashia*) **2010**, 46(8), 737–744.

(72) “超原子価ヨウ素触媒を用いるアルコールの選択的酸化反応の開発(Development of selective oxidation of alcohols by hypervalent iodine compounds)”

石原一彰

触媒(*Shokubai*) **2010**, 52(7), 497–502.

(73) 解説「金属を使わない不斉酸化的カップリング触媒 無機ヨウ素酸塩へのブレークスルー」(Catalytic asymmetric oxidative coupling without metals. Breakthrough to inorganic iodates)

石原一彰, Muhammet Uyanik, 化学(*Kagaku*) **2010**, 65(10), 12–17.

(74) “Highly practical BINOL-derived acid–base combined salt catalysts for the asymmetric direct Mannich-type reaction (**Feature article**)”

Manauba Hatano, Kazuaki Ishihara

*Synthesis* **2010**, (22), 3785–3801 (**Rank in the 10 most popular articles of the last month (Oct., 2010 (Top 10)~Nov., 2010 (Top 3))**). DOI: 10.1055/s-0030-1258296 (Nov.)

(75) “Design of dynamic salt catalysts based on acid–base combination chemistry”

Kazuaki Ishihara

In *Pharmaceutical Process Chemistry*, Takayuki Shioiri, Kunizuke Izawa, and Toshiro Konoike Eds.; Wiley–VCH Verlag, GmbH & Co. KGaA, Weinheim, 2011, pp. 39–58.

(76) “Asymmetric Cu(II) catalyses for cycloaddition reactions based on  $\pi$ -cation or  $n$ -cation interaction”

Akira Sakakura, Kazuaki Ishihara

*Chem. Soc. Rev.* **2011**, 40(1), 163–172. DOI: 10.1039/b924478f (Sep. 6)

(77) “超原子価ヨウ素触媒を用いるアルコールの選択的酸化反応(Selective oxidation of alcohols catalyzed by hypervalent iodines)”

石原一彰(Kazuaki Ishihara)

*SIS Report(ヨウ素学会会報)* **2010**, (13), 136–145 (SIS (The Society of Iodine Science)).

(78) “2-Iodoxybenzenesulfonic acid (IBS) catalyzed oxidation of alcohols”

Muhammet Uyanik, Kazuaki Ishihara

*Aldrichimica Acta* **2010**, 43(3), 83–91.

(79) “In situ-generated chiral quaternary ammonium (hypo)iodite catalysis for enantioselective oxidative cyclizations (**Invited article**)”

Muhammet Uyanik, Kazuaki Ishihara

*Chimica Oggi–Chemistry Today* **2011**, 29(1), 18–21 (Jan.).

(80) “酸塩基複合化学を基盤とする高機能触媒の創製(Preparation of multifunctional catalysts by fundamental of acid–base complex chemistry)”

石原一彰

未来材料(Future Material) **2011**, 11(4), 11–19.

(81) “非共有結合相互作用を利用したキラル超原子価ヨウ素触媒の開発：北スピロラクトン化反応への応用”

Uyanik Muhammet, 安井猛, 石原一彰

和光純薬事報 **2011**, 79(2), 2–5.

(82) “第16章 超原子価ヨウ素触媒を用いる選択的酸化反応(Up-to-date Chemistry & Technological Application of Iodine)”

石原一彰

「ヨウ素の化学と最新応用技術」, pp. 152–161, 監修: 横山正孝, シーエムシー出版 (2011年7月29日発刊)

(83) “Catalysis with in situ-generated (hypo)iodite ions for oxidative coupling reactions”

Muhammet Uyanik, Kazuaki Ishihara

*ChemCatChem* **2011**, 4(2), 177–185. DOI: 10.1002/cetc.201100352 (Dec. 23, 2011)

(84) “工業化を指向した触媒的エステル交換反応の開発(Development of catalytic transesterification directed towards industrial application)”

波多野学, 石原一彰

科学と工業(Kagaku to Kogoyo (Osaka, Japan)) **2012**, 86(1), 3–10.

(85) “Conformationally flexible chiral supramolecular catalysts for enantioselective Diels–Alder reactions with anomalous endo/exo selectivities”

Manabu Hatano, Kazuaki Ishihara

*Chem. Commun.* **2012**, 48(36), 4273–4283 (**Invited feature article**). DOI: 10.1039/C2CC00046F (March 22)

(86) “医薬品製造のための毒性元素を用いない合成法の開拓”

石原一彰

*Nagoya University eブックシリーズ1 「最先端メディカルエンジニアリング」* pp. 36–40, 名古屋大学最先端メディカルエンジニアリング編集委員会編 (2012年4月1日発行)

(87) “テーラーメイド超分子触媒の設計”

波多野学, 石原一彰

*Chemical Engineering* **2012**, 57(9), 56–61 (化学工業社).

(88) “Conformationally-flexible chiral hypervalent Organoiodine catalysts for enantioselective Oxidative Transformations”

Muhammet Uyanik, Kazuaki Ishihara

*J. Synth. Org. Chem., Jpn.* **2012**, 70(11), 1116–1122. (Nov. 2012)

(89) “Lanthanum(III) catalysts for highly efficient and chemoselective transesterification”

Manabu Hatano, Kazuaki Ishihara

*Chem. Commun.* **2013**, 49(20), 1983–1997 (**Invited feature article**). DOI: 10.1039/C2CC38204K (Jan. 17, 2013)

(90) “Baeyer–Villiger Oxidation Using Hydrogen Peroxide”

Muhammet Uyanik, Kazuaki Ishihara

ACS Catalysis 2013, 3(4), 513-520 (*Invited Perspective*). DOI: 10.1021/cs300821u (Feb. 22)

(91) “酵素の触媒機能を有する分子触媒の研究動向”

石原 一彰

触媒技術の動向と展望2013 (触媒年鑑), pp. 25–34, 2013 (触媒学会). (2013年4月10日発刊)

(92) “第4章 第6節 縮合剤を用いないカルボン酸誘導体合成技術”

石原 一彰

触媒の設計・反応制御 事例集, pp. 246–254, (株) 技術情報協会. (2013年4月30日発刊)

(93) “[研究紹介] 有機反応を自在に操る触媒工房”

石原 一彰

名古屋大学工学研究科情報誌 press E, No. 33, page 10 (June 2013). (2013年8月1日発刊)

(94) “安価なキラル超分子マグネシウム(II)-ビナフトラート触媒を用いた光学活性リン化合物の実用的合成法の開発”

波多野学、石原一彰

月刊ファインケミカル 2013, 42(8), 45–52. (2013年8月15日発行)

(95) “2-ヨードベンゼンスルホン酸 (pre-IBS) と Oxone を用いる選択的酸化反応”

ウヤヌクムハメット、六鹿達矢、石原一彰

和光純薬時報 2013, 81(4), 5–9. (2013年10月15日発行)

(96) “安価で高活性なランタン触媒の開発とエステル交換反応への展開 (Less expensive and highly efficient lanthanum(III) catalysts for transesterification)”

石原 一彰

希土類 (Rare Earths) 2013, (63), 25–34. (2013年11月8日発行)

(97) 寄稿論文 “キラルビナフチルジスルホン酸を鍵とする分子触媒設計の新機軸”

波多野学、西川圭祐、石原一彰

TCIメール 2014, No. 160, 1, 2-23. (2014年1月27日発行)

(98) Contribution “Innovative molecular design of chiral 1,1'-binaphthyl 2,2'-disulfonic acid (BINSA)”

Manabu Hatano, Keisuke Nishikawa, Kazuaki Ishihara

TCIMAIL 2014, No. 160, 1, 2-16. (2014年1月27日発行)

(99) “Chiral 1,1'-binaphthyl-2,2'-disulfonic acid (BINSA) and its derivatives for asymmetric catalysis”

Manabu Hatano, Kazuaki Ishihara

Asian J. Org. Chem. 2014, 3(4), 352–365. DOI: 10.1002/ajoc.201300256 (Feb. 4, 2014)

(100) 総合論文 “ハロゲンを Lewis 酸中心として活用する高選択的有機変換反応の開発(Development of highly selective organic transformation reactions using halogen Lewis acids)”

石原 一彰

有機合成化学協会誌 2014, 72(2), 137–148. (2012 年度有機合成化学協会企業冠賞 第一・創薬有機化学賞受賞)

(2014 年 2 月 1 日発行)

(101) “第2章 薬品関係 3 テーラーメード型超分子触媒”

波多野学、石原一彰

超分子材料の設計と応用展開(Design of Supramolecular Structures and Development for the Application) (監修 : 原田 明、シーエムシー出版), pp. 162-175 (シーエムシー出版). ISBNコード : 978-4-7813-0973-6 (2014年9月29日発行)

[http://www.cmcbooks.co.jp/products/detail.php?product\\_id=4754](http://www.cmcbooks.co.jp/products/detail.php?product_id=4754)

(102) “Boronic acid-catalyzed reactions of carboxylic acids”

Kazuaki Ishihara

Synthesis and Application of Organoboron Compounds, Topics in Organometallic Chemistry 49, Eds. E. Fernández, A. Whiting, Volume 49, 2015, pp 243–270, Springer International Publishing Switzerland 2015. DOI:10.1007/978-3-319-13054-5\_8 (29 Jan, 2015)

(103) “アルキルZ 試薬：亜鉛(II)アート錯体を用いるケトン及びイミノエステルへの高効率Grignard付加反応の開発”

波多野学、石原一彰

和光純薬時報 2015, 83(2), 2–5. ISSN 1347-4804 (2015 年 4 月 15 日発行)

(104) “高機能触媒の超分子設計”

波多野学、石原一彰

化学工業 2015, 66(5), 381–388 (2015 年 5 月 1 日発行)

(105) “Stereoselective Electrophilic Cyclization”

Akira Sakakura, Kazuaki Ishihara

*Chem. Rec.* **2015**, *15*(4), 728–742. DOI: 10.1002/tcr.201500005 (Article first published online: 6 JUL 2015)

(106) “19.1.5 有機アルミニウム化合物”

石原一彰

有機合成実験法ハンドブック 第2版（中井武編集代表）、丸善出版、ISBN 978-4-621-08948-4 (2015年11月30日発刊)

<http://f.crmf.jp/ntsbookco/cc.php?m=1awz0z390z40a5>

(107) “Chapter 2. Alkali metal (Li, Na, K)-based Catalysts”

Manabu Hatano, Kazuaki Ishihara

*Sustainable Catalysis : With Non-endangered Metals, Part 1*, Ed. Michael North, 2015, pp. 15–48. The Royal Society of Chemistry 2015.

ISBN 978-1-78262-056-3 (Print publication date: 16 NOV 2015)

<http://pubs.rsc.org/en/content/ebook/978-1-78262-056-3#!divbookcontent>

(108) 【特集】不斉合成の進展と最新研究：“リン酸の酸・塩基協奏機能を活用したホウ素Lewis酸-キラルリン酸複合高活性触媒の開発(Development of Highly Active Boron Lewis Acid-Assisted Chiral Phosphoric Acid Catalysts Based on the Cooperative Acid-Base Functions)”

波多野学、石原一彰

月刊ファインケミカル **2016**, *45*(2), 24–32. ISBNコード：0913-6150 (2016年2月15日発行)

[http://www.cmcbooks.co.jp/products/detail.php?product\\_id=5060](http://www.cmcbooks.co.jp/products/detail.php?product_id=5060)

(109) “Chapter 9: Higher Terpenes and Steroids, pp. 296–330”

Kazuaki Ishihara

*From biosynthesis to total synthesis: Strategies and tactics for natural products*, Ed. Alexandros L. Zografas, 2016, pp. 296–330, Wiley, April 2016. ISBN: 978-1-118-75173-2

<http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118751736,subjectCd-LS30.html>

(110) “Chapter 6. Asymmetric Oxidative Dearomatization Reaction”

Muhammet Uyanik and Kazuaki Ishihara, pp. 129–151

“Asymmetric Dearomatization Reactions” edited by Shu-Li You, Wiley-VCH, August 2016. ISBN: 978-3-527-33851-1

<http://www.wiley.com/WileyCDA/WileyTitle/productCd-3527338519.html>

(111) “キラルビナフチルジスルホン酸(BINSA)を用いる精密分子設計”

波多野学、石原一彰

化学工業 **2016**, *67*(9), 660–667 (2016年9月1日発行)

(112) “Bifunctional Lewis Base Catalysis with Dual Activation of R–M and C–O ( $n \rightarrow \sigma$ )”

Manabu Hatano and Kazuaki Ishihara

*Lewis Base Catalysis in Organic Synthesis*, 3 Volumes Set, edited by Edwin Vedejs and Scott E. Denmark, 2016, p. 339–386, Wiley-VCH, August 2016. ISBN: 978-3-527-33618-0

<http://as.wiley.com/WileyCDA/WileyTitle/productCd-3527336184.html>

(113) “Lewis Acids” (*Cover Picture*)

Manabu Hatano, Kazuaki Ishihara

Chapter 2, pp 27–66, *Boron Reagents in Synthesis*, Editor(s): Adiel Coca1, Volume 1236, Copyright © 2016 American Chemical Society, Publication Date (Web): November 30, 2016. DOI: 10.1021/bk-2016-1236.ch002

<http://pubs.acs.org/doi/abs/10.1021/bk-2016-1236.ch002>

(114) 【特集】ヨウ素触媒の開発最前線 寄稿「キラル第四級アンモニウム次亜ヨウ素酸塩触媒(Chiral Quaternary Ammonium Hypoiodite Catalysis)」

Muhammet Uyanik, 石原一彰

月刊ファインケミカル **2016**, *45*(12), 16–24. 2016年12月15日発行、ISBNコード：0913-6150

(115) 酸塩基複合化学に立脚する高機能触媒の創製 (Design of High Performance Catalysts Based on Acid–Base Combination Chemistry)

石原一彰 (Kazuaki Ishihara)

有機合成化学協会誌 **2017**, *75*(2), 98–110 (2015年度有機合成化学協会賞（学術的）受賞). 2017年2月1日発行

(116) “10  $\alpha$ -Oxidation of Carbonyl Compounds”

Muhammet Uyanik, Kazuaki Ishihara

“Science of Synthesis: Catalytic Oxidation in Organic Synthesis,” 2017, pp 635–670, 2018 Georg Thieme Verlag KG, R\_digerstrasse 14 D-70469 Stuttgart

DOI 10.1055/sos-SD-225-320

(117) “ボロン酸触媒を用いるアミド縮合反応”

石原一彰

PETROTECH **2018**, *41*(1), 16–19. (PETROTECH ~石油学会情報誌~, 特集ファインケミカルズ合成のための触媒研究最前線) 2018年1月1日発行

- (118) Chapter 4. "Brønsted Acid/Lewis Base Hybrid Complexes" In *Chiral Lewis Acids*, ed. by Koichi Mikami Manabu Hatano, Kazuaki Ishihara  
*Top. Organomet. Chem.* **2018**, 62, 91–120. DOI: 10.1007/3418\_2015\_143, Springer International Publishing Switzerland 2015. Published online: 11 August, 2015.  
<https://link.springer.com/book/10.1007/978-3-319-70806-5>
- (119) "ホウ酸・ボロン酸触媒を用いるアミド縮合反応の開発と工業利用"  
石原一彰  
有機分子触媒の開発と工業利用、シーエムシー出版（監修：秋山隆彦）, pp. 48–59 発行日：2018年3月30日
- (120) "ホウ素触媒でカルボン酸を自在に変換する！ アシロキシボラン中間体を鍵とするエナンチオ選択的変換反応"  
堀部貴大、石原一彰  
化学 **2018**, 73(8), 25–28.
- (121) "Oxidation of alcohols and amines"  
Muhammet Uyanik, Kazuaki Ishihara  
"Patai's Chemistry of Functional Groups," edited by Ilan Marek, Berit Olofsson, Zvi Rappoport, pp. 261-306, John Wiley & Sons, Ltd: Chichester, UK. DOI: 10.1002/9780470682531.pat0945. Published online 17 SEP 2018. ISBN: 978-1-119-35230-3 April 2019, 1032 Pages  
<https://onlinelibrary.wiley.com/doi/pdf/10.1002/9780470682531.pat0945>
- (122) "塩化鉄(III)を用いた芳香族ラジカルカチオンの単離と反応性"  
堀部貴大, 大村修平, 石原一彰  
ケミカルエンジニアリング **2019**, 64(5), 297–304. 発行日：2019年5月1日
- (123) "ホウ素Lewis酸—キラルリン酸複合触媒を用いるマルチ選択的[2+2]/[4+2]付加環化反応"  
波多野学, 石原一彰  
化学工業 **2019**, 70(9), 634–642. 発行日：2019年9月1日
- (124) [解説] "デザイン型Brønsted酸触媒を用いるエナンチオ選択的アザ-Friedel-Crafts反応"  
波多野学, 石原一彰  
触媒 **2019**, 61(5), 298–304.
- (125) Highlight Review (open access) "Initiators for radical cation-induced [2 + 2]- and [4 + 2]-cycloadditions of electron-rich alkenes"  
Takahiro Horibe, Kazuaki Ishihara\*  
*Chem. Lett.* **2020**, 49(1), 107–113. doi.org/10.1246/cl.190790 Cover Picture & Inside Cover Picture, Ranked in 3rd top accessed article
- (126) 寄稿論文「デザイナーC2 対称ジアミド型キラルヨードアレーン触媒」  
ウヤヌク ムハメット、石原 一彰  
TCI メール **2019**, No. 182, 2–16.
- (127) "Designer C2-symmetric Chiral Diamide-type Organoiodine Catalysts"  
Muhammet Uyanik and Kazuaki Ishihara  
TCIMAIL **2019**, No. 182, 2–14.
- (128) "光学活性ビナフチルジスルホン酸(BINSA)を用いる精密分子触媒設計と不斉合成"  
石原一彰  
硫酸と工業 **2021**, 74(6), 71–85. (2021年6月15日発行)
- (129) "触媒的ペプチド合成の最前線"  
石原一彰  
ファルマシア **2021**, 57(9), 804-809. 公開日: 2021/09/01 DOI: [https://doi.org/10.14894/faruawpsj.57.9\\_804](https://doi.org/10.14894/faruawpsj.57.9_804)
- (130) "19. 不斉Diels–Alder反応および関連反応"  
波多野学、石原一彰  
"有機合成のための新触媒反応101," pp. 38–39, 編集 檜山爲次郎、野崎京子、中尾佳亮、中野幸司、有機合成化学協会編、東京化学同人、2021年11月8日出版、ISBN: 978-4-8079-2005-1
- (131) "80. エステル合成"  
波多野学、石原一彰  
"有機合成のための新触媒反応101," pp. 160–161, 編集 檜山爲次郎、野崎京子、中尾佳亮、中野幸司、有機合成化学協会編、東京化学同人、2021年11月8日出版、ISBN: 978-4-8079-2005-1
- (132) "Iodine Catalysis in Organic Synthesis"  
Kazuaki Ishihara, Kilian Muñiz

Wiley-VCH: Weinheim, 2022年1月30日出版（432ページ）、ISBN 9783527348299

(133) “3.2.4 ファインケミカルズ、医薬品製造”(pp. 153–156)

石原一彰

“化学技術のフロンティアシリーズ① サーキュラー・バイオエコノミーを支える分離技術,” 公益社団法人新化学技術推進協会 グリーン・サステイナブルケミストリー ネットワーク会議, 学術研究出版、2022年2月2日出版

(134) “Chapter 7 Asymmetric Hypervalent Iodine Catalysis”

Muhammet Uyanik and Kazuaki Ishihara

“*Catalytic Asymmetric Synthesis*,” 4<sup>th</sup> Edition, coedited by Takahiko Akiyama and Iwao Ojima, pp. 243–275, John Wiley & Sons, Ltd: Chichester, UK. ISBN: 978-1-119-73639-4, Published online May 2022 (e-book), 912 Pages.

(135) 【特集】ヨウ素化学の進展と今後の展望

「キラルアンモニウム次亜ヨウ素酸塩触媒を用いるエナンチオ選択的酸化的脱芳香族化反応」

ウヤヌクムハメット、石原一彰

月刊ファインケミカル **2022**, 51(8), 31–39. 発行日：2022年8月15日、ISSNコード：0913-6150

(136) “触媒的エナンチオ選択性 $\alpha$ -ハロゲン化反応に潜むハロゲン結合の影響”

石原一彰

有機合成化学協会誌 **2023**, 81(5), 474–482. 発行日: 2023/05/01, 公開日: 2023/05/10

DOI: <https://doi.org/10.5059/yukigoseikyokaishi.81.474>

(137) “オンリーワンといえるようなテーラーメイド触媒の開発を目指して 一レディメイドからテーラーメイドへのパラダイムシフト”

石原一彰

ドラマティック有機合成化学 感動の瞬間100 pp. 60–61, 化学同人, 2023年7月30日, ISBN978-4-7598-2336-3

(138) “縮合剤を用いない触媒的ペプチド合成”

石原一彰 細胞 **2023**, 55(9), 682–684.

(139) PRESS e **2023**, No. 49, page 9 (2023年12月発行)

「SDGsを達成せよ！ 元素戦略を推進するキラル鉄(III)光レドックス触媒の開発」

## Lectures

- (1) 1996, 3, 27 進歩賞受賞講演「ルイス酸-ブレンステッド酸複合触媒による高次立体制御法の開拓」  
日本化学会春季年会（東京、青山学院大学）
- (2) 1997, 7, 10 依頼講演「ルイス酸とブレンステッド酸の組み合わせ」  
有機金属若手の会（茨木県、大心苑）
- (3) 1997, 10, 20 招待講演「ルイス酸とブレンステッド酸の組み合わせ」  
一般雑誌会（東北大学理学部）
- (4) 1998, 3, 28 依頼講演「多様な機能を持つブレンステッド-ルイス複合酸触媒の設計」  
日本化学会春季年会（京都、同志社大学）
- (5) 1998, 5, 30 招待講演 “Molecular Design of Brønsted-Lewis Acid Catalysts”  
Fine Taste of Excellent Organic Synthesis （京都リサーチホテル）
- (6) 1998, 7, 17 招待講演 「ブレンステッド-ルイス複合酸触媒の設計」  
特別講演会（帝人（株）東京研究センター）
- (7) 1998, 10, 3 依頼講演「ルイス酸複合型キラルブレンステッド酸触媒を用いるオレフィンのエナンチオ面選択性反応」  
第29回中部化学関係学協会支部連合秋季大会（豊橋技術科学大学）
- (8) 1999, 7, 23 招待講演「ルイス酸複合型キラルブレンステッド酸(LBA)触媒を用いる不斉合成」  
特別講演会（九州大学機能物質科学研究所）
- (9) 1999, 11, 3 招待講演 “Lewis Acid-Assisted Chiral Brønsted Acid Catalysts and Lewis Acid-Assisted Chiral Acetal Reagents”  
International Symposium: Lewis Acid Catalysts for Selective Organic Synthesis (名古屋国際会議場)
- (10) 2000, 7, 14 招待講演 “Design of Chiral Brønsted-Lewis Acid Catalysts”  
Seminar (University of Illinois at Chicago, USA)
- (11) 2000, 12, 8 招待講演 “夢の脱水縮合触媒を探し求めて”

- 特別講演会（東京工業大学資源化学研究所）  
(12) 2001, 4, 21 招待講演 “夢の脱水重縮合触媒を探し求めて,” 第95回 東海高分子研究会講演会（名古屋大学ベンチャーア・ビジネス・ラボラトリ-3F, ベンチャーホール）
- (13) 2001, 5, 29 招待講演 “グリーンケミストリー指向型触媒的プロセスの開発,” 特別講演会（花王株式会社 和歌山 素材開発研究所）
- (14) 2001, 6, 29 依頼講演 “(-)-Ambrox®の全合成,” 第4回夏の勉強会「有機分子構築法」（京都薬科大学セミナーハウス）
- (15) 2001, 7, 19 招待講演 “Catalytic Organic Reactions and Processes Directed toward Green Chemistry,” Seminar (North Dakota State University, USA)
- (16) 2001, 7, 20 招待講演 “Catalytic Organic Reactions and Processes Directed toward Green Chemistry,” Seminar (Minnesota University, USA)
- (17) 2001, 9, 12 招待講演 “グリーンケミストリー指向型触媒的プロセスの開発,” 特別講演会（協和油化株式会社 四日市研究所）
- (18) 2003, 1, 24 招待講演 “生体酵素を凌駕するグリーン触媒の設計と高効率的合成プロセスへの展開,” 特別講演会（ファイザーメドレー製薬株式会社 武豊 中央研究所）
- (19) 2003, 2, 18 招待講演 “グリーン触媒を用いる高効率有機反応プロセスの開発,” 特別講演会（住友化学工業株式会社 宝塚 農業化学品研究所）
- (20) 2003, 3, 16 招待講演 “Highly efficient organic syntheses using environmentally benign catalysts,” Students and Young Scientists Forum on GSC (Sophia University, Tokyo)
- (21) 2003, 3, 20 日本化学会第83春季年会口頭発表 “シリルエノールエーテルの不斉プロトン化剤として有効なルイス酸複合型キラルブレンステッド酸の結晶構造”（早稲田大学、東京）
- (22) 2003, 4, 22 招待講演 “環境調和型触媒を用いる高効率有機合成への応用”  
特別講演会（イハラケミカル工業静岡研究所、静岡）
- (23) 2003, 5, 16 招待講演 “環境に優しい触媒の設計と高効率合成プロセスへの展開”  
特別講演会（京都大学再生医科学研究所、京都）
- (24) 2003, 7, 18 招待講演 “環境調和型触媒的高効率有機合成プロセスの開発,” 若手研究者のためのセミナー（有機合成化学協会東海支部、三重大学工学部多目的会議室）
- (25) 2003, 10, 3 招待講演 “環境調和型触媒的高効率有機合成プロセスの開発,” 特別講演会（竹本油脂株式会社、蒲郡）
- (26) 2003, 10, 10 特許流通フェア、技術シーズ発表会 “環境調和型触媒反応の開発：エステル、アミド、ニトリル、ビタミンEの合成,” 特別講演会（中部経済産業局産業技術課、名古屋市中小企業振興会館吹上ホール内講演会会場）
- (27) 2003, 11, 6 招待講演 “環境調和型触媒的高効率有機合成プロセスの開発,” 特別講演会（大日本インキ化学工業(株) 堺工場、大阪府高石市高砂）
- (28) 2003, 11, 7 依頼講演 “環境調和型触媒的高効率有機合成プロセスの開発,” 第4回テクノ・フェア名大2003（名古屋大学工学研究科、名古屋大学シンポジオホール）
- (29) 2003, 11, 24 招待講演 “Highly Efficient Organic Syntheses Using Environmentally Benign Catalysts,” The 14th CRC International Symposium on “Molecular Catalysis of the Next Generation” (Conference Hall, Hokkaido University, Sapporo, Japan)
- (30) 2003, 11, 28 招待講演 “環境調和型触媒的高効率有機反応プロセスの開発,” 特別講演会（萬有製薬（株）合成技術研究所 愛知県岡崎市）
- (31) 2003, 12, 19 依頼講演 “スーパールイス酸触媒の設計,” 合同班会議：特定領域研究「動的錯体の自在制御化学」（大阪コスモスクエア 国際交流センター）
- (32) 2004, 3, 9 受賞講演 “環境調和型触媒的高効率有機合成プロセスの開発,” 第4回グリーン・サステイナブル ケミストリー シンポジウム（グリーン・サステイナブル ケミストリー ネットワーク、学術総合センター・一ツ橋記念講堂 東京都千代田区一ツ橋）
- (33) 2004, 3, 9 依頼講演 “環境調和型高効率エステル縮合反応の開発,” 産学官テクノプラザ（財団法人中部科学技術センター、名古屋市工業研究所、名古屋市熱田区）
- (34) 2004, 6, 17 招待講演 “環境調和型触媒的脱水縮合反応プロセスの開発,” 有機合成化学講習会（有機合成化学協会主催、日本薬学会長井記念ホール、東京都渋谷区）

- (35) 2004, 9, 7 招待講演 “Design of Esterification Catalysts Directed towards Green Processes,” The 1st SIOC-NU Joint Conference for Young Scientists (Shanghai Institute Technology, Shanghai, China)
- (36) 2004, 9, 18 招待講演 “グリーン触媒の分子設計”（中部化学関係学協会支部連合秋季大会、特別討論会：先導的有機化学の探究：発見と発明、中部化学関係学協会支部連合協議会、名古屋大学東山キャンパス）
- (37) 2004, 9, 27 招待講演 “エステル縮合触媒”（山形大学工学部、山形県米沢市）
- (38) 2004, 11, 26 招待講演 “グリーンケミカルプロセスを指向した小分子人工酵素の開発”（第2回有機化学学者若手研究会、名古屋大学21世紀COEプログラム「物質科学の拠点形成：分子機能の解明と創造」、名古屋大学野依物質科学研究所）
- (39) 2004, 12, 2 招待講演 “酵素を凌駕する小分子グリーン触媒の設計”（第10回グリーンケミストリーフォーラム、日本化学会グリーンケミストリー研究会主催、東京工業大学・百年記念館 フェライト会議室（大岡山キャンパス））
- (40) 2005, 1, 7 招待講演 “グリーンケミストリーを指向した小分子人工酵素の設計”（第10回精密合成化学セミナー 有機合成における新展開、北海道大学大学院工学研究科分子化学専攻精密合成化学講座主催、北海道大学材料・化学棟大講義室MC030教室）
- (41) 2005, 1, 17 招待講演 “高効率有機反応プロセスを指向した複合酸触媒の設計” SORSTジョイントシンポジウム(2) 進化する有機合成化学、独立行政法人 科学技術振興機構(JST) 戰略的創造研究推進事業・継続課題(SORST)、コクヨホール（東京、品川））
- (42) 2005, 1, 28 招待講演 “Design of Reusable Ester Condensation Catalysts” The 3<sup>rd</sup> Symposium of Noguchi Fluorous Project, p. 34–35, 財団法人野口研究所、主婦会館プラザエフB2階クラルテ
- (43) 2005, 2, 4 招待講演 “脱水縮合触媒によるグリーンケミカルプロセスの開発” 21世紀COE「京都大学化学連携研究拠点」化学研究所 精密有機合成セミナー, p. 1-2, 京都大学化学研究所共同研究棟大セミナー室
- (44) 2005, 2, 15 招待講演 “酵素を凌駕する小分子グリーン触媒の設計” 三共アグロ株式会社農業科学研究所、滋賀県野洲市
- (45) 2005, 3, 8 招待講演 “酵素を凌駕する小分子グリーン触媒の設計” 先端技術講演会「グリーン・サステナブルケミストリーへの招待」、旭化成ファインケム株式会社主催、向陽俱楽部ホテル、宮崎県延岡市
- (46) 2005, 6, 9-10 特別セミナー “低環境負荷型触媒的有機合成反応プロセスの開発とノウハウ” 日本テクノセンター主催、東京都千代田区九段
- (47) 2005, 6, 21 Invited Lecture “Design of dehydrative condensation catalysts directed toward GSC” The 2<sup>nd</sup> International Conference on Green and Sustainable Chemistry, Hotel Washington, Washington, DC, USA.
- (48) 2005, 6, 23 Invited Lecture “Design of dehydrative condensation catalysts directed toward GSC” Duke University, North Calorina, USA.
- (49) 2005, 6, 24 Invited Lecture “Design of dehydrative condensation catalysts directed toward GSC” 2<sup>nd</sup> International Conference on Green and Sustainable Chemistry, The University of North Calorina at Chapel Hill, North Calorina, USA.
- (50) 2005, 9, 2 招待講演 “均一系脱水縮合触媒の設計と固定化” 第41回触媒フォーラム「固体触媒と均一触媒の融合をめざして」、p. 5–7、触媒学会主催、三井化学(株)袖ヶ浦センター シャープレスホール
- (51) 2005, 9, 16 招待講演 “低環境負荷型酸塩基複合触媒の精密設計” 特別講演会、万有製薬株式会社 合成技術研究所、岡崎
- (52) 2005, 10, 19 招待講演 “環境低負荷型脱水縮合反応プロセスを指向した均一系触媒の設計” 特別講演会、三菱レイヨン株式会社横浜技術研究所、横浜
- (53) 2005, 10, 27 招待講演 “酵素を凌駕する酸・塩基複合型小分子触媒の設計” 特別講演会、帝人ファーマ、東京研究センター、日野
- (54) 2005, 11, 22 依頼講演 “酵素を凌駕する酸塩基複合型小分子人工触媒の設計” 21世紀COEプログラム 東工大—名大材料系COE合同シンポジウム「自然に学ぶナノマテリアルの開拓」、東京工業大学21世紀COE及び名古屋大学21世紀COE、品川プリンスホテル新館17階
- (55) 2005, 12, 6 依頼講演 “フッ素化学を利用した脱水縮合触媒の開発”

- 平成17年度第1回フルオラス研究会、野口研究所 講義室、東京都板橋区
- (56) 2005, 12, 13 Invited Lecture “Design of dehydrative condensation catalysts” Joint US–Japan Workshop on Sustainable Chemical Synthesis, Sheraton Waikiki Hotel (Honolulu Room), Honolulu, Hawaii, USA.
- (57) 2005, 12, 19 Invited Lecture “Design of L-amino acid-derived small artificial enzymes: artificial acylases and Diels–Alderases” Organocatalyzed Asymmetric Synthesis, The 2005 International Chemical Congress of Pacific Basin Societies (PACIFICHEM), Hilton Hawaiian Village, Honolulu, Hawaii, USA
- (58) 2006, 1, 24 招待講演 “酵素を凌駕する酸・塩基複合型小分子触媒の設計” 特別講演会、富士写真フィルム、有機合成化学研究所、小田原
- (59) 2006, 3, 10 Invited Lecture “Rational design of small-molecule artificial enzymes based on acid–base combined chemistry” 0<sup>th</sup> Nagoya organic Chemistry Seminar, JSPS Asian Core Program Cutting Edge Organic Chemistry in Asia, Nagoya Conference Hall, Nagoya University, Nagoya
- (60) 2006, 3, 18 依頼講演 “カチオン–π電子相互作用を利用した小分子不斉Diels–Alder触媒の設計” 「動的錯体の自在制御化学」 第5回公開シンポジウム、講演要旨集p. 69–72、文部科学省 科学研究費補助金 特定領域研究 領域番号420 領域略称「動的錯体」、京都大学ローム記念館
- (61) 2006, 4, 25 依頼講演 TLO Academic Seminar: “環境低負荷型脱水縮合反応プロセスを指向した均一系触媒の設計：アミド、エステル、リン酸エ斯特ル” CPhI JAPAN 2006(国際医薬品原料・中間体展)、Exhibition Catalogue 2006, p. 8; 主催：化学工業日報、東京ビッグサイト
- (62) 2006, 7, 3 招待講演 “バイオミメティックポリエン環化反応の新展開” 第41回天然物化学談話会 北海道沙流郡日高町 国立日高青少年自然の家 平成18年7月3日—7月5日
- (63) 2006, 8, 4 依頼講演 “触媒的アシル化反応プロセスの新展開” 「酸・塩基複合型有機触媒の精密設計」 第1回公開シンポジウム；日本学術振興会科学研究費補助金 基盤研究C（企画調査研究）、京都大学薬学研究科教育棟1階マルチメディア教室
- (64) 2006, 9, 12 Invited Lecture “Design of Small Artificial Catalysts Based on the Acid–Base Combination Chemistry” Department of Chemistry, National Tsing Hua University, Hsinchu, Taiwan, Republic of China
- (65) 2006, 9, 13 Invited Lecture “Design of Small Artificial Catalysts Based on the Acid–Base Combination Chemistry” Department of Chemistry, National Taiwan University, Taipei, Taiwan, Republic of China
- (66) 2006, 9, 14 Invited Lecture “Design of Small Artificial Catalysts Based on the Acid–Base Combination Chemistry” Department of Chemistry, National Taiwan Normal University, Taipei, Taiwan, Republic of China
- (67) 2006, 10, 6 招待講演 “低環境負荷型脱水縮合反応プロセスの開発” JST CREST環境ナノ触媒領域ワークショップ京都「グリーン有機合成の最前線」；主催：科学技術振興機構；JST研究成果活用プラザ京都（京都市西京区）
- (68) 2006, 10, 27 Invited Lecture “Rational Design of Small-molecule Artificial Enzymes Based on Acid–Base Combination Chemsitry” The 16<sup>th</sup> Symposium on Optically Active Compounds, 光学活性化合物研究会主催、日本薬学会館長井記念ホール、Tokyo
- (69) 2006, 11, 2 招待講演 “エステル縮合触媒の基礎と応用” 特別講演会、東レ株式会社、繊維化学研究所、三島
- (70) 2006, 11, 12 招待講演 “酸・塩基複合化学に基づく精密分子触媒設計” 第37回中部化学関係協会支部連合秋季大会、愛知工業大学八千草キャンパス、2006年11月12-13日
- (71) 2006, 11, 21 Invited Lecture “Design of Highly Functional Small-molecule Catalysts Based on Acid–Base Combination Chemistry” Department of Chemistry, Yonsei University, Seoul, Korea
- (72) 2006, 11, 22 Invited Lecture “Design of Highly Functional Small-molecule Catalysts Based on Acid–Base Combination Chemistry” Department of Chemistry, POSTEC (Pohang University of Science and Technology), Pohang, Korea

- (73) 2006, 11, 23 Invited Lecture “Design of Highly Functional Small-molecule Catalysts Based on Acid–Base Combination Chemistry” Department of Chemistry, KAIST (Korea Advanced Institute of Science and Technology), Daejeon, Korea
- (74) 2006, 12, 12 依頼講演 “最小のサイズで最高の触媒機能を追求する精密有機合成触媒の開発” 第4回名古屋大学東京フォーラム、主催：名古屋大学、日本経済新聞社、経団連ホール、東京
- (75) 2006, 12, 16 Invited Lecture “Molybdenum(VI) Oxides as Highly Effective Dehydrative Cyclization Catalysts for the Synthesis of Oxazolines and Thiazolines” 2<sup>nd</sup> International Conference on Heterocyclic Chemistry, Dec. 16–19, 2006, Abstract: IL-4, Hotel Clark’s Amer, Jaipur, India
- (76) 2007, 1, 16 招待講演 “酸・塩基複合化学に基づく精密機能小分子触媒の設計” 主催：和光純薬工業株式会社、埼玉県川越市
- (77) 2007, 1, 17 依頼講演 “低環境負荷型触媒的脱水縮合反応プロセスの開発” 主催：日本サーファクタント工業株式会社、栃木県宇都宮市
- (78) 2007, 2, 15 依頼講演 “酸・塩基複合化学に基づく精密機能小分子触媒の設計：バイオミメティックハロポリエン環化反応” 主催：丸岡啓二、第一回有機触媒研究会、京都大学百周年時計台記念館 会議室111
- (79) 2007, 3, 27 Invited lecture “Design of dehydrative condensation catalysts based on acid–base combination chemistry” Abstract pp. 1–2, Japan/UK Green Sustainable Chemistry Symposium, Chemical Society of Japan & Royal Society of Chemistry, Kansai University, Osaka
- (80) 2007, 4, 17 招待講演 “酸・塩基複合化学を基盤とする機能触媒の設計” 特別講演会、万有製薬株式会社 創薬技術研究所、つくば市
- (81) 2007, 4, 18 依頼講演 TLO Academic Seminar: “有機金属求核剤の炭素一金属結合活性化を基盤とする高効率触媒反応の開発” CPhI JAPAN 2007(国際医薬品原料・中間体展)、Exhibition Catalogue 2007, pp. 10–11; 2007年4月18日～20日、主催：化学工業日報、東京ビッグサイト
- (82) 2007, 5, 18 招待講演 “酸・塩基複合化学を基盤とする機能触媒の設計” 東京農業工業大学(座長：長澤和夫)
- (83) 2007, 5, 19 招待講演 “バイオミメティックポリエン環化反応” 有機合成化学協会中四国支部 第60回パネル討論会「有機合成化学の最前線 – 環をつくる」, 要旨集pp. 1–6, 主催：高井和彦、有機合成化学協会中四国支部、岡山大学
- (84) 2007, 5, 29 Invited lecture “Biomimetic enantioselective haloiodocyclization of polyprenoids induced by nucleophilic phosphoramidites” International Conference on Asymmetric Organocatalysis, Scientific Research on Priority Areas Advanced Molecular Transformations of Carbon Resources, Abstract pp. 40–41, Otsu Prince Hotel, Shiga, Japan, May 28–29, 2007.
- (85) 2007, 6, 4 招待講演 “酸塩基複合化学を基盤とする触媒的エステル縮合反応の新展開” 主催：触媒学会ファインケミカルズ合成触媒研究会、名古屋大学ベンチャービジネスラボラトリ（ベンチャーホール）
- (86) 2007, 6, 7 Oral presentation: Kazuaki Ishihara,\* Manabu Hatano, Eri Takagi, Sodium pheoxide–phosphine oxides as extremely active Lewis base catalysts for the Mukaiyama aldol reaction with ketones to generate vicinal quaternary carbon centers,” 8<sup>th</sup> International Symposium on Carbanion Chemistry (ISCC-8), Abstract pp. 66, Madison, WI, USA, June 6–10, 2007.
- (87) 2007, 6, 12 招待講演、大学院講義・特別講演会 “酸塩基複合化学を基盤とするグリーン触媒の設計” 岐阜薬科大学 (座長：伊藤彰近)、岐阜県
- (88) 2007, 6, 22 依頼講演、講演会 “Serendipity”、座長：渡邊晃男教諭（進学指導担当）、滝高等学校（滝学園）、江南市
- (89) 2007, 6, 23 一般講演, “Enantioselective [2+2] cycloaddition of unsaturated alkenes with  $\alpha$ -acyloxyacroleins catalyzed by chiral organoammonium salts” 第10回有機分子構築法夏の学校(幹事:畠山範、長崎大院)、「ながさき式見ハイツ」長崎市四柱町, 2007年6月22日、23日
- (90) 2007, 8, 1 Invited lecture “Design of ultra-light fluorous catalysts for the dehydrative condensation reaction”, The 2nd International Symposium on Fluorous Technologies (ISoFT07), Abstract pp. 89–92, July 29–August 1, 2007 Yokohama-Kamakura, Japan
- (91) 2007, 8, 27 依頼講演 “酸・塩基複合化学を基盤とする高機能小分子触媒の設計” 新材料システム研究会、JSTイノベーションプラザ東海

- (92) 2007, 9, 3 招待講演 “酸・塩基複合化学を基盤とする触媒設計戦略” 有機合成夏期セミナー「明日の有機合成化学」、要旨集pp. 12–17、平成19年9月3日～4日、主催：有機合成化学協会関西支部、大阪市立大学文化交流センターホール、大阪市
- (93) 2007, 9, 14 招待講演 酸・塩基複合化学を基盤とする高機能触媒の設計、セミナー「ファインプロセスの最前線」主催：(有)化学品イー・データ開発、大阪厚生年金会館
- (94) 2007, 9, 20 招待講演 酸・塩基複合化学を基盤とする高機能触媒の設計、セミナー「ファインプロセスの最前線」主催：(有)化学品イー・データ開発、東京厚生年金会館
- (95) 2007, 9, 24 Invited lecture “A new catalytic method for the Mukaiyama aldol reaction with ketones to prevent a reverse reaction”, 4<sup>th</sup> Japanese–Sino Symposium on Organic Chemistry for Young Scientists, Abstract pp. 71–73, September 22–26, 2007, Narita, Chiba.
- (96) 2007, 9, 27 依頼講演 “ラセミ及び光学活性第3級アルコールの高効率触媒的合成法”, 東海ものづくり創生協議会 平成19年度第3回技術シーズ発表会、名古屋栄ビルディング12階 特別会議室
- (97) 2007, 11, 20 授賞講演 “酸・塩基複合型高機能触媒の設計と低環境負荷型精密有機合成反応の開拓”、第21回IBM科学賞授賞式、東京都、千代田放送会館
- (98) 2007, 12, 1 招待講演 “酸塩基複合化学を基盤とする機能触媒の創製” 講演要旨集pp. 10–12 (講演番号I 01), 平成19年12月1日～2日, 有機合成化学協会関東支部, 新潟薬科大学, 新潟
- (99) 2007, 12, 5 客員教授特別講演会 “酸・塩基複合化学を基盤とする低環境負荷型触媒反応の設計（前半）”及び“酸・塩基複合化学を基盤とする不斉触媒反応の設計（後半）”, 平成19年12月5日, 京都大学化学研究所 (ホスト: 川端猛夫教授), 京都府宇治市
- (100) 2007, 12, 18 Invited lecture “2-Iodoxybenzenesulfonic acid (IBS) as an extremely active catalyst for the oxidation of alcohols with oxone®” Co-author: Muhammet Uyanik, International Symposium on Catalysis and Fine Chemicals 2007, Program & Abstracts p. A353 (OC-A0292), NTU (Nanyang Technological University), Singapore, 16 to 21 December 2007.
- (101) 2008, 1, 25 Invited lecture “Superlight fluorous catalysis” 第3回フルオラス研究会、岡山コンベンションセンター4F 404会議室、岡山
- (102) 2008, 1, 28 招待講演 “触媒的脱水環化反応を鍵とするγ-ピロン、オキサゾリン類の合成研究” 東京工業大学 (ホスト: 鈴木啓介教授)、大岡山
- (103) 2008, 1, 29-30 招待講演 “酸・塩基複合化学を基盤とする精密分子触媒設計”, SORSTジョイントシンポジウム(8)“「有機合成功力」-そのダイナミズム”, 講演予稿集pp. 11–14、コクヨホール (東京、品川)
- (104) 2008, 2, 21-23 Invited lecture “Design of highly functional catalysts based on acid–base combination chemistry” School of Molecular Science (BK21) International Symposium-2008, Abstracts pp. 2–3, Ramada Plaza Hotel, Jeju, Korea
- (105) 2008, 4, 9 依頼講演 TLO Academic Seminar: “革新的なエステル縮合触媒、酸化触媒、不斉Mannich触媒の開発” CPhI JAPAN 2008(国際医薬品原料・中間体展)、Exhibition Catalogue 2008, pp. 12; 2008年4月9日～11日、主催：化学工業日報、東京ビッグサイト
- (106) 2008, 4, 17 招待講演 “酸・塩基複合型高機能触媒の設計と低環境負荷型精密有機合成反応開拓”、宇部興産(株) 技術開発研究所、山口県宇部市
- (107) 2008, 5, 10 招待講演 “酸・塩基複合化学を基盤とする触媒設計戦略：「硬い分子性触媒」から「変幻自在な柔らかい動的錯体触媒」へ” 第18回万有福岡シンポジウム 環境に優しい有機合成研究のフロンティア, 要旨集 pp.15–21、主催：万有福岡シンポジウム組織委員会、九州大学医学部百年講堂 (九州、福岡)
- (108) 2008, 5, 23 招待講演 “酸・塩基複合化学を基盤とする触媒設計戦略：「硬い分子性触媒」から「変幻自在な柔らかい動的錯体触媒」へ” 積水メディカル株式会社、岩手工場 (岩手県)
- (109) 2008, 6, 10 招待講演 “機能触媒創製のための酸・塩基複合化学：「硬い分子性触媒」から「変幻自在な柔らかい動的錯体触媒」へ” 岐阜大学大学院工学研究科応用化学専攻 (ホスト: 安藤香織教授)、岐阜
- (110) 2008, 6, 16 依頼講演 “カチオン・π相互作用を利用する不斉環化触媒の合理的設計” 文部科学省科学研究費補助金特定領域研究「炭素資源の高度分子変換」「第5回公開シンポジウム」仙台国際センター、仙台、平成20年6月16、17日

- (111) 2008, 7, 28-30 Invited lecture “Design of dynamic salt catalysts based on acid–base combination chemistry” The First International Symposium on Process Chemistry (ISPC 08), The Japanese Society for Process Chemistry, Kyoto International Conference Center, Kyoto
- (112) 2008, 9, 4 招待講演 “酸化、エステル縮合反応に有効な高活性触媒の開発” 三菱レーヨン中央技術研究所、広島県大竹市
- (113) 2008, 9, 10 招待講演 “超原子価ヨウ素触媒を用いるアルコール酸化自在制御法の開拓” 学習院大学理学部化学科（ホスト：秋山隆彦教授）、東京都豊島区目白
- (114) 2008, 11, 11 招待講演 “酸・塩基複合化学を基盤とする高機能触媒の設計” アステラス製薬(株)大阪鹿島事業所、大阪
- (115) 2008, 11, 17 招待講演 “疎水効果を利用した脱水縮合触媒反応の開発” 第32回フッ素化学討論会講演要旨集PL-2、日本フッ素化学会主催、名古屋国際会議場
- (116) 2008, 12, 16 招待講演 “酸・塩基複合化学を基盤とする高機能触媒の設計” 静岡県立大学薬学部（ホスト：管敏幸教授）、静岡
- (117) 2009, 1, 13 Invited lecture “2-Iodoxybenzenesulfonic Acid (IBS) as an Extremely Active catalyst for the Selective Oxidation of Alcohols to Aldehydes, Ketones and Carboxylic Acids with Oxone®”, Nagoya University Joint Symposia (5th Yoshimasa Hirata Memorial Lecture and the 1<sup>st</sup> G-COE International Symposium on Elucidation and Design of Materials and Molecular Functions) R-03, Abstracts pp. 11-12, Symposion Hall, Nagoya University, 13-14<sup>th</sup> Janmary, 2009.
- (118) 2009, 1, 20 招待講演 “フッ素含有強酸とのキラル塩触媒を用いる不斉環化反応及び触媒的エステル合成法の開発” セントラル硝子（株）・化学研究所(埼玉県川越市)
- (119) 2009, 1, 30 招待講演 “超原子価ヨウ素触媒を用いるアルコールの選択的酸化反応” 愛媛大学大学院理工学研究科（ホスト：渡辺裕教授）、愛媛
- (120) 2009, 4, 21 依頼講演 TLO Academic Seminar: “cat. I(V)/Oxoneを用いるアルコール酸化反応、cat. Zn(II)/RMgXを用いるアルコールの不斉合成、La(III)触媒を用いる官能基選択的エステル交換反応” CPhI JAPAN 2009(国際医薬品原料・中間体展)、Exhibition Catalogue 2009, pp. 12; 2009年4月21日～23日、主催：化学工業日報、東京ビッグサイト
- (121) 2009, 8, 4 Invited lecture “2-Iodoxybenzenesulfonic acid (IBS) as an Extremely Active Catalyst for the Selective Oxidation of Alcohols to Aldehydes, Ketones, Carboxylic Acids, and Enones with Oxone®” Abstract, pp. 68; The International Conference on Green and Sustainable Chemistry, Furama Riverfront Hotel, Singapore, 3–5 August, 2009.
- (122) 2009, 8, 7 招待講演 “非結合性分子内相互作用を活用した機能触媒の設計”、宇部興産（株）技術開発研究所、山口県宇部市。
- (123) 2009, 8, 28 招待講演 “酸塩基複合化学を基盤にする高機能触媒の設計”、武田薬品工業株式会社、大阪市。
- (124) 2009, 9, 4 依頼講演 “選択的有機合成のための高機能触媒の開発”、テクノフェア名大2009、名古屋大学IB電子情報館、名古屋市。
- (125) 2009, 9, 16 Mukaiyama Award Lecture “Rational Design of Highly Functional Acid–Base Combined Catalysts,” The 26<sup>th</sup> Seminar on Synthetic Organic Chemistry, Abstracts pp. 27–30, Maebashi City, Gunma Prefecture, Japan.
- (126) 2009, 10, 6 Invited Lecture “Rational Design of Highly Functional Acid–Base Combined Catalysts” Department of Chemistry, hosted by Professor Pauline Chiu, The University of Hong Kong, Hong Kong, Republic of China.
- (127) 2009, 10, 7 Invited Lecture “Rational Design of Highly Functional Acid–Base Combined Catalysts” Department of Chemistry, hosted by Professor Chun-Yu Jason Ho, The Chinese University of Hong Kong, Hong Kong, Republic of China.
- (128) 2009, 10, 8 Invited Lecture “Rational Design of Highly Functional Acid–Base Combined Catalysts” Department of Chemistry, hosted by Professor Zhihong Guo, The Hong Kong University of Science and Technology, Hong Kong, Republic of China.
- (129) 2009, 10, 24 Invited Lecture “Chiral lithium(I)-binaphtholate complexes for the diastereo- and enantioselective direct Mannich-type reaction,” Proceedings pp. 14-16; The 14<sup>th</sup> Japan–Korea Seminar on Organic Chemistry, Atami New Fujiya Hotel, Atami, Shizuoka, 23–26 October, 2009.

- (130) 2009, 10, 29 招待講演 “ハロゲンを触媒に用いる高選択的酸化反応” 日産化学工業株式会社 物質科学研究所、千葉県.
- (131) 2009, 10, 30 招待講演 “超原子価ヨウ素触媒を用いるアルコールの選択的酸化反応” 第12回ヨウ素学会シンポジウム、千葉大学けやき会館.
- (132) 2009, 11, 5 招待講演 “ハロゲンを触媒に用いる高選択的酸化反応” 積水メディカル岩手工場、花巻、岩手県.
- (133) 2009, 11, 10 “Hypervalent iodine-catalyzed enantioselective oxidative cycloetherification of 3-(2-hydroxyphenyl)propan-1-ones to 2,3-dihydrobenzofuran-2-carbonyl derivatives,” The 11<sup>th</sup> International Kyoto Conference on New Aspects of Organic Chemistry, Co-authors, Muhammet Uyanik, Hiroaki Okamoto, Program and abstracts I: OP-18 (p. 71), Rihga Royal Hotel Kyoto, Japan, 9–13 Nov. 2009.
- (134) 2009, 11, 19 招待講演 “超原子価ヨウ素触媒を鍵とする酸化反応の開発とその後の展開” 有機合成化学講習会 有機合成化学の社会的意義 2009年11月18-19日、日本薬学会長井記念ホール、東京都渋谷区.
- (135) 2009, 12, 7 招待講演 “超原子価ヨウ素触媒を用いるアルコールの酸化反応” 新化学発展協会先端化学技術部会講演会、新化学発展協会会議室、東京都千代田区.
- (136) 2010, 2, 15 招待講演 “超原子価ヨウ素触媒を鍵とする酸化反応の開発” 持田製薬株式会社総合研究所 講演会、静岡県御殿場市.
- (137) 2010, 3, 15 招待講演 “超原子価ヨウ素触媒を鍵とする酸化反応の開発” セントラル硝子（株）・化学研究所(埼玉県川越市)
- (138) 2010, 4, 21 依頼講演 TLO Academic Seminar: “エステル交換触媒、カルボン酸の脱水縮合触媒、不斉超原子価ヨウ素触媒” CPhI JAPAN 2010(国際医薬品原料・中間体展)、Exhibition Catalogue 2010, pp. 10; 2010年4月21日～23日、主催：化学工業日報、東京ビッグサイト.
- (139) 2010, 5, 21 招待講演 “Enantioselective oxidative cyclizations catalyzed by chiral hypervalent iodines,” BIT’s 1<sup>st</sup> Annual World of Congress of Catalytic Asymmetric Synthesis 2010, Abstracts p. 140, Beijing International Convention Center (BICC), China, 19–21 May, 2010.
- (140) 2010, 5, 28 招待講演 “超原子価ヨウ素触媒研究の展開” 協和発酵キリン株式会社 富士サーチパーク創薬化学研究所、三島.
- (141) 2010, 7, 5 Plenary Lecture “Hypervalent Iodine-Catalyzed Enantioselective Oxidative Cyclizations,” 3<sup>rd</sup> international Conference on Hypervalent Iodine Chemistry (ICHIC2010), Book of Abstracts PL1, University of Bordeaux, France, 4–7 July, 2010.
- (142) 2010, 9, 3 依頼講演 “医薬品・有機材料の合成に用いるグリーン触媒”、テクノフェア名大2010、名古屋大豊田講堂、名古屋市.
- (143) 2010, 9, 9 招待講演 “超原子価ヨウ素触媒を用いる精密有機合成法の開拓” 大日本住友製薬株式会社プロセス化学研究所、大阪市此花区.
- (144) 2010, 9, 21 招待講演 “酸・塩基複合型機能触媒の設計” 積水メディカル岩手工場、花巻、岩手県.
- (145) 2010, 9, 22 招待講演 “有機触媒を用いるエナンチオ選択性カップリング反応” 第3回有機触媒シンポジウム、東北大学片平キャンパス、仙台.
- (146) 2010, 10, 8 Invited Lecture “Hypervalent Iodine-Catalyzed Enantioselective Oxidative Cyclizations,” The Fourth International Forum on Homogeneous Catalysis and the First China-Canada Bilateral Symposium on Catalysis, Book of Abstracts pp. 27-28, Kunming, China, 7–10 October, 2010.
- (147) 2010, 11, 6 招待講演 “キラルヨウ素触媒を用いる不斉酸化的カップリング反応,” 第37回中部化学関係学協会支部連合秋季大会, 予稿集1E08, pp. 32, 豊橋技術科学大学、2010年11月6-7日.
- (148) 2010, 12, 6 Invited Lecture “Hypervalent Iodine-catalyzed Enantioselective Oxidative Cyclizations,” The XIV Organic Chemistry Conference (OCC), The National Organic Symposium Trust (NOST), Cidade De Goa, India, 5–8 December, 2010.
- (149) 2010, 12, 16 Invited Lecture, Kazuaki Ishihara,\* Manabu Hatano, Takahiro Horibe, “Enantioselective direct Mannich-type reaction catalyzed by chiral lithium complexes,” Pacificchem2010, Honolulu, Hawaii, USA, December 15–20, 2010.
- (150) 2010, 12, 18 Invited Lecture, Kazuaki Ishihara,\* Muhammet Uyanik, Takeshi Yasui, Hiroaki Okamoto, “Hypervalent iodine-catalyzed enantioselective oxidative cycloetherification of 3-(2-

- hydroxyphenyl)propan-1-ones to 2,3-dihydrobenzofuran-2-carbonyl derivatives,” Pacificchem2010, Honolulu, Hawai, USA, December 15–20, 2010.
- (151) 2011, 1, 11 招待講演 “酸・塩基複合化学を基盤にする高機能触媒の設計” 第一三共株式会社製薬技術本部（平塚事業所）、神奈川県。
- (152) 2011, 1, 28 Invited Lecture “Hypervalent Iodine-catalyzed Enantioselective Oxidative Cyclizations,” hosted by Professor Thomas Wirth, Department of Chemistry, Cardiff University, Cardiff, UK.
- (153) 2011, 2, 1 Invited Lecture, “Hypervalent Iodine Catalyses,” The Symposium of Catalysis and Sensing for Health (CAS) 11, University of Bath, Bath, UK, 31 January, 2011–2 February, 2011.
- (154) 2011, 3, 17 Invited Lecture “Rational Design of Asymmetric Cu(II) Catalysts Based on  $\pi$ - or  $n$ -Cation Interactions,” Nagoya University Global COE-RCMS International Symposium on Organic Chemistry and the 7th Yoshimasa Hiarata Memorial Lecture, Nagoya University.
- (155) 2011, 6, 28 招待講演 “工学部が拓く道”、講堂、滝高等学校。
- (156) 2011, 7, 2 招待講演 “元素戦略に基づく酸・塩基複合触媒の精密設計,” 第23回万有札幌シンポジウム 有機化学の深化と多様化、北海道大学工学部オーブンホール。
- (157) 2011, 7, 12 Invited lecture “Asymmetric Hypervalent Iodine Catalysts,” The 23rd International Symposium on Chiral Discrimination (ISCD 23), Abstract p. 35, Liverpool, United Kingdom, 10–13 July, 2011.
- (158) 2011, 7, 14 Invited Lecture “Hypervalent Iodine-catalyzed Enantioselective Oxidative Cyclizations,” hosted by Professor Mike Shipman, Department of Chemistry, The University of Warwick, Warwick, United Kingdom.
- (159) 2011, 9, 2 依頼講演 “人工酵素への挑戦：レディメイドからテーラーメイドへ”、テクノフェア名大2011、名古屋大学豊田講堂、名古屋市。
- (160) 2011, 9, 9 Invited Lecture “Asymmetric Hypervalent Iodine Catalysts,” hosted by Professor Hendrik Zipse, LMU Munich, Munich, Germany.
- (160) 2011, 9, 12 Plenary Lecture “Advanced Hypervalent Iodine Catalysts,” The 22<sup>nd</sup> French–Japanese Symposium of Medicinal and Fine Chemistry (FJS-2011), Book of Abstracts L-1, Rouen, France, 11–14 September, 2011.
- (161) 2011, 9, 15 Invited Lecture “Asymmetric Hypervalent Iodine Catalysts,” hosted by Professor Jieping Zhu, EPFL, Lausanne, Switzerland.
- (162) 2011, 10, 2 Invited Lecture “Asymmetric Hypervalent Iodine Catalysts,” The 15<sup>th</sup> Korea–Japan Seminar on Organic Chemistry, Proceedings pp. 61–62, Rose Hall, Gyeongju KyoYuk MunHwa HoeKwan, Gyeongijyu-si, Korea, 30 September–3 October, 2011.
- (163) 2011, 11, 11 依頼講演 “エステル、ラクトン、カルボン酸無水物の新しい触媒的製造法” 名古屋大学新技術説明会 医薬品・医薬中間体・農薬、科学技術振興機構JSTホール（東京・市ヶ谷）。
- (164) 2011, 11, 15 招待講演 “レディメイド小分子触媒からテーラーメイド超分子触媒への新展開” 第2回ものづくり革新する新しい触媒研究会：有機分子触媒からクロスカップリング金属触媒まで（座長：柴田哲男教授）、公益財団法人 科学技術交流財団、名古屋工業大学19号館602号室（名古屋市昭和区御器所町）。
- (165) 2011, 11, 17 招待講演 “酵素を凌駕する動的超分子触媒の設計” 千葉大学理学部4号館1階マルチメディア1、ホスト：荒井孝義教授（千葉・西千葉）。
- (166) 2011, 12, 30 “Asymmetric Hypervalent Iodine Catalysts,” 8<sup>th</sup> AFMC International Medicinal Chemistry Symposium (AIMECS11) “Frontier of Medicinal Science”, Organized by: Asian Federation for Medicinal Chemistry (AFMC), Keio Plaza Hotel Tokyo, 29 November–2 December, 2011.
- (167) 2011, 12, 19 招待講演 “超原子価ヨウ素触媒,” 第22回万有仙台シンポジウム 有機合成化学における新物質・新手法・新思想、要旨集pp. 10–16、仙台国際センター。
- (168) 2011, 12, 20 招待講演 “酵素を凌駕する動的超分子触媒の設計” 積水メディカル岩手工場、花巻、岩手県。
- (169) 2012.1.31 Plenary lecture “Conformationally Flexible Supramolecular Catalysts,” AstraZeneca Excellence in Chemistry Award 2011 – Symposium, Ulf Widengren Auditorium, AstraZeneca India Pvt Ltd, Bangalore, India.
- (170) 2012.2.1 Invited lecture “Conformationally Flexible Supramolecular Catalysts,” hosted by Prof. Santanu Mukherjee, Department of Organic Chemistry, Indian Institute of Science (IISc), Bangalore, India.

- (171) 2012.2.2 Invited lecture “Asymmetric Hypervalent Iodine Catalysts,” Ulf Widengren Auditorium, AstraZeneca India Pvt Ltd, Bangalore, India.
- (172) 2012.2.3 Invited lecture “Conformationally Flexible Supramolecular Catalysts,” hosted by Prof. Choon Hong Tan, National University of Singapore, Singapore.
- (173) 2012.3.19 招待講演（理研セミナー）“配座柔軟性を活かした超分子不斉触媒の設計” 理化学研究所基幹研究所物質棟S-507会議室、埼玉県和光市（ホスト：袖岡有機合成化学研究室）.
- (174) 2012.3.23 招待講演 “超原子価ヨウ素触媒を用いる低環境負荷型有機変換反応の開拓,” プロセス化学セミナー, CPhI Japan (2012年3月21-23日、東京ビッグサイト).
- (175) 2012.3.23 依頼講演 “デザイン型グリーン触媒：エステル交換、加水分解、脱水縮合、Baeyer-Villiger酸化、etc.,” TLO/大学知的財産本部技術移転セミナー, CPhI Japan (2012年3月21-23日、東京ビッグサイト).
- (176) 2012.6.6 日本発！ヨウ素を触媒に用いる緑の合成化学 -ものづくりと環境技術- 第23回名大カフェ “Science, and Me”、会場：アルテゴ ドゥ ショウズ(名古屋市中区錦)
- (177) 2012.6.12 依頼講演 “テーラーメイド型超分子触媒の設計 一 酵素を凌駕する触媒活性、立体及び反応選択性制御を目指して,” CRESTプロセスインテグレーションに向けた高機能ナノ構造体の創出 研究領域 研究総括 立教大学 入江正浩 第2回公開シンポジウム 一分子の世界からマクロの世界へ 一, コクヨホール(品川).
- (178) 2012.6.13 招待講演 “超原子価ヨウ素触媒を用いる緑の合成化学,” 大正製薬株式会社製薬技術研究所, さいたま市.
- (179) 2012.6.30 Invited lecture “Rational Design of Conformationally Flexible Supramolecular Catalysts,” hosted by Prof. Qingzhi Gao, Tianjin University (天津大学), Tianjin, China.
- (180) 2012.7.2 Invited lecture “Enantioselective Diels–Alder Reactions with Anomalous Endo/Exo-selectivities Using Conformationally Flexible Chiral Supramolecular Catalysts,” The 8<sup>th</sup> SINO-US Chemistry Professors Conference, July 1–4, 2012, EXPO-Garden Hotel, Kunming, China.
- (181) 2012.7.4 Invited lecture “Rational Design of Conformationally Flexible Supramolecular Catalysts,” hosted by Prof. Ying-Chun Chen, Sichuan University (四川大学), Chengdu (成都), China.
- (189) 2012.7.5 Invited lecture “Rational Design of Conformationally Flexible Supramolecular Catalysts,” hosted by Prof. Zhang-Jie Shi, Peking University (北京大学), Beign (北京), China.
- (190) 2012.7.6 Invited lecture “Rational Design of Conformationally Flexible Supramolecular Catalysts,” hosted by Prof. Weidong Li, Nankai University (南開大学), Tianjin (天津), China.
- (191) 2012.7.31 Invited lecture “Enantioselective Diels–Alder Reactions with Anomalous Endo/Exo-selectivities Using Conformationally Flexible Chiral Supramolecular Catalysts,” ○Kazuaki Ishihara, Manabu Hatano, Tomokazu Mizuno, Atsuto Izumiseki, Ryota Usami, Takafumi Asai, Matsuiro Akakura, Abstract, pp. 80, 2<sup>nd</sup> International Conference on Molecular Catalysis (ICMFC-2), 30-31 July 2012, Biopolis, Singapore (Chairman: Prof. T. S. Andy Hor).
- (192) 2012.08.31 依頼講演 “環境に優しい縮合触媒の開発： ボロン酸触媒を用いるアミド、エステル、カルボン酸無水物合成法,” テクノフェア名大2012–未来を明日に近づける技術—、名古屋大学豊田講堂・シンポジオンホール
- (193) 2012.10.4 依頼講演 “鏡の国のサイエンス –アリスが見た分子の左右–,” あいちサイエンスフェスティバル2012、ジュンク堂書店ロフト名古屋店7階ブックサロン (名古屋市中区栄ナディアパーク)
- (194) 2012.10.10 Invited lecture “Hypervalent Iodine Catalysts,” The Fifth International Forum on Homogeneous Catalysis, State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry (SIOC), Shanghai, China, 9–12 October, 2012.
- (195) 2012.10.15 招待講演 “超原子価ヨウ素触媒を用いるエナンチオ選択性の酸化的カップリング反応,” 第2回大塚有機合成シンポジウム、能力開発研究所・ヴェガホール、徳島県、2012年10月15–16日
- (196) 2012.10.23 招待講演 “酵素を凌駕する超分子触媒の開発を目指して,” ホスト：小林進、東京理科大学薬学部（千葉県野田市）.
- (197) 2012.12.4 招待講演 “超原子価ヨウ素触媒,” 有機合成化学協会東海支部総合講演会、信州大学繊維学部、総合研究等7階 ミーティングルーム 1

- (198) 2012.12.9 Invited lecture “Hypervalent Iodine Catalyses,” 6<sup>th</sup> International Meeting on Halogen Chemistry (HALCHEM-VI), Department of Inorganic & Physical Chemistry, Indian Institute of Science, Bangalore 560012, India, December 8–11, 2012.
- (199) 2012.12.17 Invited lecture “Liphophilic ammonium pyrosulfate catalysts for esterification and hydrolysis under aqueous conditions,” First Japan–USA Organocatalytic Symposium, Waikiki Prince Hotel, Hawaii, USA, December 15–18, 2012.
- (200) 2013.1.21 招待講演 “超原子価ヨウ素触媒を用いる選択的カップリング反応,” 東京工業大学資源化学研究所 (ホスト: 岩本正和教授)
- (201) 2013.1.22 招待講演 “環境に優しい過酸化水素を用いる酸化反応の開発,” 三菱ガス化学株式会社 東京研究所 (葛飾区新宿金町 東京テクノパーク)
- (202) 2013.1.25 招待講演 “超原子価ヨウ素触媒を用いる脱水素型有機変換反応の開発,” 住友化学株式会社 健康・農業関連事業所(宝塚、大阪)
- (203) 2013.3.15 招待講演 “ハロゲンを利用する高選択的触媒反応の開発,” 住友化学株式会社 持田製薬 株式会社総合研究所記念館会議室(静岡県御殿場市)
- (204) 2013.3.20 依頼講演 “夢の化学反応にかける学生たちの研究のはなし,” 名古屋大学オープンレクチャー2013、名古屋大学東山キャンパス (名古屋大学リサーチ・アドミニストレーション室主催).
- (205) 2013.3.22 招待講演 “高機能ソフト超分子触媒の開発” 講演番号1S2-02、日本化学会第93春季年会、有機合成化学を起点とするものづくり戦略、立命館大学びわこ・くさつキャンパス
- (206) 2013.4.20 Invited lecture “L18 Rational Design of Chiral Supramolecular Catalysts,” 4<sup>th</sup> UK/Japan Conference in Catalytic Asymmetric Synthesis, UK/Japan CAS Organization Committee, Sendai International Centre, April 19–20, 2013
- (207) 2013.4.25 依頼講演 “超原子価ヨウ素触媒を用いる酸化的カップリング反応,” TLO/大学知的財産本部技術移転セミナー, CPhI Japan (2013年4月24–26日、東京ビッグサイト)
- (208) 2013.5.13 Plenary lecture “Rational Design of Chiral Supramolecular Catalysts Based on Acid–Base Combination Chemistry,” 7th International Symposium on Acid–Base Catalysis (ABC-7), Tokyo, Japan, May 12–15, 2013
- (209) 2013.5.23 Invited lecture “Rational Design of Chiral Supramolecular Catalysts for Endo/Exo- and Enantioselective Diels–Alder Reaction,” Nagoya Symposium 2013, ES Hall, Nagoya University, Nagoya, May 23, 2013.
- (210) 2013.6.13 Invited lecture “Rational Design of Chiral Supramolecular Catalysts Based on Acid–Base Combination Chemistry” hosted by Professor Shuli You, Shanghai Institute of Organic Chemistry, Chinese Academia Sciences (中国科学院・上海有机化学研究所), Shanghai, China, June 13, 2013
- (211) 2013.6.13 Invited lecture “Rational Design of Chiral Supramolecular Catalysts Based on Acid–Base Combination Chemistry” hosted by Professor Jian Zhou, East China Normal University (华东师范大学), Shanghai, China, June 13, 2013
- (212) 2013.6.14 Invited lecture “Rational Design of Chiral Supramolecular Catalysts Based on Acid–Base Combination Chemistry” hosted by Professor Wei Huang, Shanghai Institute of Materia Medica, Chinese Academia Sciences (中国科学院・上海药物研究所), Shanghai, China, June 14, 2013
- (213) 2013.6.14 Invited lecture “Rational Design of Chiral Supramolecular Catalysts Based on Acid–Base Combination Chemistry” hosted by Professor Jie Wu, Fudan University (復旦大学), Shanghai, China, June 14, 2013
- (214) 2013.6.15 Invited lecture “Rational Design of Chiral Supramolecular Catalysts Based on Acid–Base Combination Chemistry” hosted by Professor Wei Wang, East China University of Science and Technology (华东理工大学), Shanghai, China, June 15, 2013
- (215) 2013.9.6 一般講演 “安全・安価なカルボン酸アミド合成法：ボロン酸触媒を用いる脱水縮合反応の新展開,” テクノ・フェア名大2013, 名古屋大学豊田講堂・シンポジオンホール
- (216) 2013.9.11 招待講演 “酸塩基複合触媒の精密設計,” ホスト: 中田雅久、早稲田大学理工学院術院化学・生命化学科講演会、早稲田大学西早稲田キャンパス55号館

- (217) 2013.9.23 依頼講演 “大発見・大発明に大切なセレンディピティーのはなし,” 秋の名古屋大学オーブンレクチャー2013, 2013.9.23／名古屋大学 理学南館1階坂田・平田ホール、他 (名古屋大学リサーチ・アドミニストレーション室主催)
- (218) 2013.9.25 Invited lecture SIL-15 “Unusual C-Selective and Diastereoselective Alkylation to  $\alpha$ -Imino Esters with Zinc(II) Ate Reagent,” The 10th International Symposium on Carbanion Chemistry (ISCC-10), Kambaikan, Doshisha University, September 23-26, 2013.
- (219) 2013.9.29 Invited lecture “Nucleophilic Phosphorus Catalyst-induced Stereoselective Halocyclizations,” The 16th Japan–Korea Seminar on Organic Chemistry, Akiu Resort Hotel Crescent, Sendai, September 27–30, 2013.
- (220) 2013.10.31 招待講演 “酸塩基複合化学を基盤とする高機能触媒の開発,” ホスト：竹本佳司教授、京都大学薬学研究科特別講演会、京都大学薬学研究科
- (221) 2013.11.1 一般講演 “含フッ素亜リン酸エステル触媒を用いる位置及び立体選択的プロモポリエン環化反応,” ○石原一彰、澤村泰弘、仲辻秀文、坂倉彰、フルオラス科学研究会第6回シンポジウム、岡山国際交流センター2F 国際会議場
- (222) 2013.11.07 受賞講演 “超原子価ヨウ素触媒を用いる高選択的有機変換反応の開発,” 第104回有機合成シンポジウム, 2013年11月6日—7日, 早稲田大学国際会議場
- (223) 2013.11.15 招待講演 “安価で高活性なランタン触媒の開発とエステル交換反応への展開,” 希土類2013.11, No. 63, pp. 25–34, 日本希土類学会第31回講演会, ホテル ルブラン王山
- (224) 2013.12.23 依頼講演 “化学研究者・研究者育成のための魅力ある大学・大学院教育を目指して,” 第43回東海地区化学教育セミナー (主催 日本化学会東海支部 化学教育協議会), 名古屋大学工学研究科1号館121講義室
- (225) 2014.4.10 依頼講演 “TLO-11 高効率アミド合成：ボロン酸とDMAPOの協奏触媒による脱水縮合反応,” TLO/大学知的財産本部技術移転セミナー, CPhI Japan (2014年4月9–11日、東京ビッグサイト)
- (226) 2014.5.9 Plenary “PL5 Stereoselective halocyclization Catalyzed by Chiral Lewi Bases,” The 6th ORCA Meeting (The 6th Organocatalysis Meeting), The Hotel La Torre, Modello in Palermo, Italy, May 7th-10th, 2014  
<http://portale.unipa.it/6th-ORCA---COST-Meeting-Welcome/>
- (227) 2014.6.3 依頼講演 “酸塩基複合化学を基盤とする機能触媒の設計(Design of functional catalysts based on acid-base combination chemistry),” CREST 「プロセスインテグレーションに向けた高機能ナノ構造体の創出」研究領域 第4回公開シンポジウム 高機能ナノ構造体 –分子の世界からマクロの世界へ– (要旨集 page 7) 、コクヨホール (品川)
- (228) 2014.6.17 Invited lecture “Rational design of High-performance Catalysts Based on Acid-Base Combination Chemistry,” A mini symposium hosted by Professor Ernst Peter Kündig, University of Geneva, Switzerland  
<https://www.unige.ch/sciences/chiorg/conferences?dept=chiorg>
- (229) 2014.6.21 Invited lecture “(IL26) Catalytic Enantioselective Iodolactonization of 4-Substituted 4-Pentenoic Acids Promoted through Halogen Bonding,” 1<sup>st</sup> International Symposium on Halogen Bonding (ISXB-1), Le Dune Suite Hotel, Porto Cesareo, Italy, June 18-22, 2014
- (230) 2014.6.24 Invited lecture “Rational design of High-performance Catalysts Based on Acid-Base Combination Chemistry,” hosted by Professor Pier Giorgio Cozzi, University of Bologna, Italy
- (231) 2014.7.10 招待講演 “酵素機能を指向する酸塩基複合触媒の設計,” 創薬懇話会2014 in 岐阜, 2014年7月10–11日、長良川温泉ホテルパーク (岐阜市)  
<http://www.gifu-pu.ac.jp/lab/souyaku/>
- (232) 2014.7.23 Invited lecture “Enantioselective 1,3-Dipolar Cycloaddition of Azomethine Imines with Propiolylpypyrazoles Induced by Chiral  $\pi$ -Cation Catalysts”, (Chair: Dr. He-Kuan Luo) 4<sup>th</sup> International Conference on Coordination Chemistry (ICCC-41), Suntec Singapore Convention & Exhibition Centre, Singapore, July 21–25, 2014.  
<http://www.iccc41.org/>
- (233) 2014.7.31 招待講演 “I-5 プロセス化学を指向した酸塩基複合触媒の開発,” 座長：貴志直文 (第一三共), 2014年7月31日–8月1日, 日本プロセス化学会2014サマーシンポジウム, タワーホール船堀 (東京都江戸川区)  
<http://www.cdsympo.com/process2014/>

- (234) 2014.9.12 Invited lecture “Design of High-perfprmance Catalysts Based on Halogen Chemistry,” hosted by Prof. Wanbin Zhang, Shanghai Jiao Tong University (上海交通大学), Shanghai (上海), China.
- (235) 2014.9.13 Invited lecture “Design of High-perfprmance Catalysts Based on Halogen Chemistry,” hosted by Prof. Chuanying Li, Zhejiang Sci-Tech University (浙江理工大学), Hangzhou (杭州), China.
- (236) 2014.9.13 Invited lecture “Design of High-perfprmance Catalysts Based on Halogen Chemistry,” hosted by Prof. Yi-Xia Jia, Zhejiang University of Technology (浙江工业大学), Hangzhou (杭州), China.  
<http://www.ce.zjut.edu.cn>ShowNewsPageAction.do?newsID=2959&smallClassID=122&bigClassID=15>
- (237) 2014.9.15 Invited lecture “Design of High-perfprmance Catalysts Based on Halogen Chemistry,” hosted by Prof. Bo Liu, College of Chemistry, Sichuan University (四川大学化学学院), Chengdu (成都), China.
- (238) 2014.9.15 Invited lecture “Design of High-perfprmance Catalysts Based on Halogen Chemistry,” hosted by Prof. Yin-Chun Chen, West China School of Pharmacy, Sichuan University (四川大学華西藥学院), Chengdu (成都), China.
- (239) 2014.9.17 Invited lecture “Design of High-perfprmance Catalysts Based on Halogen Chemistry,” hosted by Prof. Jian Zhou, East China Normal University (華東師範大学), Shanghai (上海), China.
- (240) 2014.9.25 Invited AbbVie lecture “The Development of Catalytic Enantioselective Cyclizations Based on Iodine Chemistry,” hosted by Prof. Scott E. Denmark, 116 Roger Adams Laboratory, The University of Illinois at Urbana-Champaign, USA.  
<http://illinois.edu/calendar/detail/1381?eventId=30461156&calMin=201409&cal=20140924&skinId=737>
- (241) 2014.10.1 依頼講演 “超分子触媒を用いるエナンチオ-、ジアステレオ-、レジオ-、基質選択的Diels-Alder反応,” 戦略目標「プロセスインテグレーションによる次世代ナノシステムの創製」3研究領域第2回合同公開シンポジウム (科学技術振興機構) (要旨集 pp. 3-4), コクヨホール (品川) .
- (242) 2014.11.7 招待講演 “酸塩基複合化学を基盤とする触媒設計,” 特別講演会 (ホスト: 南方聖司教授)、大阪大学大学院工学研究科応用化学専攻
- (243) 2014.11.14 招待講演 “遷移金属の代替元素としてヨウ素を利用した触媒的酸化的カップリング反応の開発,” 座長: 伊藤俊幸教授、第24回グリーンケミストリーフォーラム、鳥取大学工学研究科大講義室  
<http://www.chem.tottori-u.ac.jp/gsc/Seminar/2014-2p.pdf#search=%27GSC%E3%83%95%E3%82%A9%E3%83%BC%E3%83%A9%E3%83%A0%27>
- (244) 2014.12.1-4 Invited Lecture: OP-21 “Catalytic enantioselective cyclization reaction to construct chroman skeletons,” The 9th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-9)/The 5<sup>th</sup> New Phase International Conference on Cutting-Edge Organic Chemistry in Asia (NICCEOCA-5), Eastin Hotel Petaling Jaya, Malaysia.
- (245) 2014.12.12 招待講演 “酸塩基複合化学を基盤とする触媒設計,” 特別講演会 (ホスト: 国嶋崇隆教授)、金沢大学医薬保健研究領域薬学系
- (246) 2015.1.7 招待講演 “エステル・アミド縮合触媒の開発,” 株式会社大阪合成有機化学研究所本社、兵庫県西宮市
- (247) 2015.1.9-10 依頼講演 “トコフェロールの触媒的不斉合成,” 第26回ビタミンE研究会, 北里大学薬学部コンベンションホール <http://www.sunpla-mcv.com/vitaminE/nenkai.html>
- (248) 2015.1.13 招待講演 “酸塩基複合化学を基盤とする高機能触媒の開発,” 第一三共株式会社品川研究開発センター
- (249) 2015.3.21 依頼講演 “技が冴える分子世界の匠のはなし,” 名古屋大学オープンレクチャー2015,” 名古屋大学工学研究科1号館144講義室  
<http://www.aip.nagoya-u.ac.jp/public/openlecture/index.html>
- (250) 2015.5.11 Invited Lecture: “Rational Design of High Performance Catalysts Based on Organoboronic Acids,” (Host: Professor Glenn Sammis), Location: Chemistry D215, University of Biritish Columbia, Vancouver, Canada  
<http://www.chem.ubc.ca/rational-design-high-performance-catalysts-based-organoboronic-acids>

- (251) 2015.5.13 Invited Lecture: "Rational Design of High Performance Catalysts Based on Organoboronic Acids," (Host: Professor Dennis Hall), Location: CCIS L2 190, University of Alberta, Edmonton, Canada  
[http://uofa.ualberta.ca/science/events/chemistry/\\_6gq44e9o60pjcb9o6gsj0b9k69136ba264r3aba4711jed9k74sj8hi68o](http://uofa.ualberta.ca/science/events/chemistry/_6gq44e9o60pjcb9o6gsj0b9k69136ba264r3aba4711jed9k74sj8hi68o)
- (252) 2015.5.14 Invited Lecture: "Rational Design of High Performance Catalysts Based on Organoboronic Acids," (Host: Professor Chang-Chun Ling), Location: SB 142, University of Calgary, Alberta, Canada  
<http://www.ucalgary.ca/chem/event/2015-05-14/dr-kazuaki-ishihara-nagoya-university>
- (253) 2015.6.2 Invited lecture: "Rational Design of Supramolecular Acid–Base Catalysts," (Host: Professor Man-kin Wong), Location: Y817, the Hong Kong Polytechnic University (香港理工大學), Hong Kong, China [2014 ACP Lectureship Award (from Hong Kong)].
- (254) 2015.6.3 Invited lecture: "Rational Design of Supramolecular Acid–Base Catalysts," (Host: Professor Ken F. C. Leung), Location: SCT 909, the Hong Kong Baptist University (香港浸會大學), Hong Kong, China [2014 ACP Lectureship Award (from Hong Kong)].  
<http://chem.hkbu.edu.hk/en/home/events&n=186>
- (255) 2015.6.4 Invited lecture: "Rational Design of Supramolecular Acid–Base Catalysts," (Host: Professor Pauline Chiu), the University of Hong Kong (香港大學), Location: Lecture theatre P1, Hong Kong, China [2014 ACP Lectureship Award (from Hong Kong)].
- (256) 2015.6.5 Invited lecture: "Rational Design of Supramolecular Acid–Base Catalysts," (Host: Profs. Jianwei Sun and Rongbiao Tong), the Hong Kong University of Science and Technology (香港科技大學), Location: Rm 4505, 4/F (Lift 25/26) Academic Building, Hong Kong, China [2014 ACP Lectureship Award (from Hong Kong)].  
<http://ucalendar.ust.hk/cgi-bin/day.php?day=05&mon=06&yr=&mon2=05&yr2=2015&fmt=largeMonth>
- (257) 2015.6.15–16 招待講演: "酸塩基二重活性化を利用する高機能触媒の設計: アミド宿業反応及び不斉ヘテロ環化反応への展開," 平成27年度前期(春季)有機合成化学講習会, (公社)日本薬学会長井記念館長井記念ホール(東京、渋谷)  
<https://www.ssocj.jp/event/kousykai/2015spring.php>
- (258) 2015.7.6–9 Invited lecture: "[C-3] Design of Supramolecular Catalysts for the Enantio-, Diastereo-, Regio-, and Substrate-Selective Diels–Alder Reaction," 第39回内藤コンファレス The chemistry of organocatalysts 「有機分子触媒の化学」, シャトレーゼ ガトーキングダム サッポロ 札幌市北区東茨戸132番地
- (259) 2015.9.1–2 招待講演: "酸塩基複合化学を鍵とするキラル金属塩触媒の設計," 有機合成夏期セミナー「明日の有機合成化学」、有機合成化学協会関西支部主催, 大阪科学技術センター8F 中・小ホール  
<http://www.soc-kansai.org/event/2015/2015summer.html>
- (260) 2015.9.3–6 Invited lecture: "[L-15] Enantioselective halocyclizations induced by chiral base–acid cooperative catalysis," HALCHEM VII (7<sup>th</sup> International Meeting on Halogen Chemistry), the Jan Dlugosz University in Czestochowa, Poland  
[http://212.87.235.14/halchem7/viewpage.php?page\\_id=1](http://212.87.235.14/halchem7/viewpage.php?page_id=1)
- (261) 2015.9.16 受賞講演: "ヨウ素触媒及び反応剤を用いる高選択性的有機変換反応の開発," 第18回ヨウ素学会シンポジウム, 千葉大学西千葉キャンパス総合校舎  
<http://fiu-iodine.org/wp/wp-content/uploads/2015/08/2d4cf153dc4d9c076c0b307d4bcfd78a1.pdf>
- (262) 2015.9.26 招待講演: "酸塩基複合化学を鍵とする触媒活性と選択性の制御," 第9回北里化学シンポジウム, 北里大学白金キャンパス  
<http://www.pharm-kitasato-u-orgsyn.com/2015akps/>
- (263) 2015.10.2 口頭発表: "O-3 アミド脱水縮合反応に有効なフッ素含有フェニルボロン酸触媒: 新たな展開へ" 石原一彰、魯彦会 フルオラス科学研究院第8回シンポジウム、清水テルサ(静岡市東部勤労者福祉センター)7階会議室

- (264) 2015.10.13 Invited lecture: "Rational Design of Supramolecular Acid–Base Catalysts," National Sun Yat-sen University (國立中山大學) (Host: Prof. Mi-Ju Wu), Kaohsiung, Taiwan, 2015 Asian Core Program Lectureship Award on Cutting-Edge Organic Chemistry in Asia (by Coordinator of Taiwan)
- (265) 2015.10.14 "Rational Design of Supramolecular Acid–Base Catalysts," National Taiwan Normal University (國立師範大學) (Host: Hsyueh-Liang Wu), Taipei, Taiwan, 2015 Asian Core Program Lectureship Award on Cutting-Edge Organic Chemistry in Asia (by Coordinator of Taiwan)
- (266) 2015.10.15 "Rational Design of Supramolecular Acid–Base Catalysts," Academia Sinica (中央研究院) (Host: Rong-Jie Chein), Taipei, Taiwan, 2015 Asian Core Program Lectureship Award on Cutting-Edge Organic Chemistry in Asia (by Coordinator of Taiwan)
- (267) 2015.11.5 依頼講演「大学は人生の通過点に過ぎない。その先の夢に向かって、今すべきことを。」 プチカー（大学・学部を知るワークショップ） 愛知県立丹羽高等学校
- (268) 2015.11.18 Plenary Lecture: "Rational Design of Chiral Acid–Base Combined Catalysts," (Chair: prof. Shinichi Saito), 14<sup>th</sup> Symposium on Chemical Approach to Chirality, Morimoto Memorial Hall, Kagurazaka, Tokyo. <http://www.rs.kagu.tus.ac.jp/chiral/14thSympo.html>
- (269) 2015.12.16 ○Kazuaki Ishihara, Yanhui Lu  
Invited lecture: "ORG 609: Boronic acid–DMAPO cooperative catalysis for dehydrative condensation of carboxylic acids with amines," Organoboron Chemistry: Applications in Organic Synthesis, Biology, and Materials (#100) [1P], Tapa Tower, Tapa Ballrm 1 (Hilton Hawaiian Village), Pacificchem 2015, Honolulu, Hawaii, USA, December 15-20, 2015.
- (270) 2015.12.17 ○Kazuaki Ishihara, Hidefumi Nakatsuji  
Invited lecture: "ORG 1172: Enantioselective iodocyclization induced by chiral base–acid cooperative catalysis," Recent Trends in Organocatalysis (#122) [1A], Mid-Pacific Center, Coral 4 (Hilton Hawaiian Village), Pacificchem 2015, Honolulu, Hawaii, USA, December 15-20, 2015.
- (271) 2015.12.18 ○Kazuaki Ishihara, Manabu Hatano, Keisuke Nishikawa  
Oral: "ORG 1728: Synthesis of 3,3'-Diaryl-1,1'-binaphthalene-2,2'-disulfonic Acids and Design of Chiral 3,3'-Ar<sub>2</sub>-BINSA Salt Catalysts," New Organosulfur Chemistry (#436) [3A], Mid-Pacific Center, Sea Pearl Suites 3 & 4 (Hilton Hawaiian Village), Pacificchem 2015, Honolulu, Hawaii, USA, December 15-20, 2015.
- (272) 2015.12.26 招待講演「非共有結合性相互作用を鍵とする高機能触媒の設計」  
日本薬学会関東支部第40回学術講演会「創薬イノベーションを支える最先端サイエンス」、長井記念館長井記念ホール、要旨集 pp. 5-7.
- (273) 2016.1.30 依頼講演「キラルビナフチルジスルホン酸(BINSA)を用いる超分子触媒の設計と反応開発」  
新学術領域研究「精密制御反応場」第1回公開シンポジウム 東京工業大学蔵前会館くらまえホール
- (274) 2016.2.18 受賞講演「酸塩基複合化学に立脚する高機能触媒の創製」、2015年度有機合成化学協会賞（学術的）受賞、如水会館スターホール
- (275) 2016.3.14 招待講演「エステル・アミド縮合触媒の開発」、第5回慶應義塾大学戦略的研究基盤形成支援事業シンポジウム 有機合成化学一効率化と環境調和性一、慶應義塾大学矢上キャンパス、厚生棟大会議室
- (276) 2016.4.22 招待講演「有機反応を自在に操るための酸塩基複合化学」、協和発酵キリン株式会社 富士リサーチパーク、静岡県駿東郡長泉町
- (277) 2016.6.2 招待講演「フッ素置換基を利用する触媒設計」、第13回フッ素相模セミナー、相模中央化学研究所 大会議室、神奈川県綾瀬市、2016年6月2日～3日
- (278) 2016.6.9 Keynote Lecture: KN09 "Cooperative Activation with Chiral Lewis Base Catalysts and N-Haloimides: Catalytic Enantioselective Iodocyclization," 2nd International Symposium on Halogen Bonding (ISXB2), Gothenburg, Sweden, June 6-10, 2016  
<http://www.isxb-2.eu/>
- (279) 2016.6.13 Invited Lecture: "Cooperative Activation with Chiral Lewis Base Catalysts and N-Haloimides: Catalytic Enantioselective Iodocyclization," Stockholm University (Host: Berit Olofsson), Stockholm, Sweden  
<http://www.organ.su.se/pdf/2016-06-1314.00.pdf>
- (280) 2016.6.28 Invited Lecture: "Enantioselective iodocyclization reactions induced by chiral Lewis acid–base catalysis," Ruhr University Bochum, (Host: Professor Stephan M. Huber), Bochum, Germany
- (281) 2016.6.29 Invited Lecture: "Enantioselective iodocyclization reactions induced by chiral Lewis acid–base catalysis," Westfälische Wilhelms-University Münster (Host: Prof. Frank Glorius), Germany

- (282) 2016.7.4 Invited Lecture: "IL-5 I(III)-Catalyzed Enantioselective Synthesis of Masked ortho-Benzoquinones and Related Reactions," ICHIC 2016 (5th International Conference of Hypervalent Iodine Chemistry), Eurotel Victoria, Les Diablerets, Switzerland, 3–6, July, 2016.
- (283) 2016.7.21 招待講演「有機反応の立体化学を触媒で自在に制御する」、平成28年度有機合成化学協会東海支部若手研究者のためのセミナー、三重大学新産業創成研究拠点セミナー室、津市模擬講義「分子の匠：分子を意のままにつくりたい」、2016年度名古屋大学オープンキャンパス 化学・生命工学科名古屋大学工学部1号館121講義室
- (284) 2016.8.8 招待講演「テーラーメイド触媒の設計」、高知大学理学部応用理学科（座長：市川善康教授）、理学部共通講義室4（情報科学棟1F）
- (285) 2016.9.12 Invited lecture "Enantioselective Addition Reactions of 3-Butynoyl-1H-pyrazole Catalyzed by Chiral  $\pi$ -Cu(II) Complexes," Chiral India 2016 (5th International Conference and Exhibition), Holiday Inn, Mumbai, India, 8–9th Nov., 2016.
- (286) 2016.11.8 Invited lecture "Enantioselective Addition Reactions of 3-Butynoyl-1H-pyrazole Catalyzed by Chiral  $\pi$ -Cu(II) Complexes," C&FC 2016 (Catalysis and Fine Chemicals 2016), Howard Civil Service International House, Taipei, Taiwan, 10–14<sup>th</sup> Nov., 2016.
- (287) 2016.11.11 依頼講演「強力な研究室を作るためのマネジメント」、化学ラボラトリーマネジメント～ブレイクをめざす情報センリヤク～、CSJ化学フェスタ、タワーホール船堀、2016年11月11–16日
- (288) 2016.11.14 招待講演「酵素を凌駕するテーラーメイド触媒の開発を目指して」名古屋大学東山キャンパス理学南館大講堂（坂田・平田ホール）(独)日本学術振興会創造機能化学第116委員会東海地区講演会
- (289) 2016.11.21 Designated lecture "Enantioselective Addition Reactions of 3-Butynoyl-1H-pyrazole Catalyzed by Chiral  $\pi$ -Cu(II) Complexes," The 1st M&M SYNTECH Unit International Meeting 2016 (Host: 最先端機能分子・材料合成技術ユニット (研究大学強化促進事業 最先端国際研究ユニット)), VBL Hall, Nagoya University
- (290) 2016.12.19 招待講演「第四級アンモニウム円触媒を用いるエステル交換反応」、共栄社化学株式会社奈良研究所
- (291) 2017.1.17 招待講演「触媒の鍵穴制御による高次選択性反応の開発」、特別企画講演1S6-04、分子空間化学に基づく精密有機合成・機能展開、日本化学会第97春季年会、慶應義塾大学、日吉キャンパス、2017年3月16–19日
- (292) 2017.3.16 Invited lecture "Rational Design of Chiral Brønsted Acid Catalysts Based on Acid–Base Combination Chemistry," Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences (Host: Professor Shu-Li You), Shanghai, China
- (293) 2017.4.26 Invited lecture "Rational Design of Chiral Brønsted Acid Catalysts Based on Acid–Base Combination Chemistry," East China Normal University (Host: Professor Xuefeng Jiang)  
<http://www.ecnu.edu.cn/66/30/c1950a91696/page.htm>
- (294) 2017.4.27 Invited lecture "Rational Design of Chiral Brønsted Acid Catalysts Based on Acid–Base Combination Chemistry," Shanghai Jiao Tong University (Host: Professor Wanbin Zhang)  
<http://www.sjtu.edu.cn/xiaoli/xlactivitycontent.jsp?urltype=news.NewsContentUrl&wbtreeid=1251&wbnewsid=70368>
- (295) 2017.4.27 Invited lecture "Rational Design of Chiral Brønsted Acid Catalysts Based on Acid–Base Combination Chemistry," Shanghai Institute of Organic Chemistry, Shanghai Institute of Material Medica, Chinese Academy of Sciences (Host: Professor Ming-Hua Xu)
- (296) 2017.4.28 Invited lecture "Rational Design of Chiral Brønsted Acid Catalysts Based on Acid–Base Combination Chemistry," East China University of Science and Technology (Host: Professor Wei-Ping Deng)  
<http://pharmacy.ecust.edu.cn/2017/0426/c2590a63400/page.htm>
- (297) 2017.4.28 Designated Lecture OR-10 "Rational Design of Chiral Brønsted Acid Catalysts for Enantioselective Reactions," 2nd International Symposium on Precisely Designed Catalysts with Customized Scaffolding, Hankyu Sanwa Hall, Icho Kaikan, Osaka University Suita Campus  
<http://precisely-designed-catalyst.jp/jpn/events/pdf/20170512Program-intl-sympo.pdf>
- (298) 2017.5.13

- (299) 2017.5.16 Invited lecture “Multiselective Diels–Alder Reaction Induced by Chiral Supramolecular Lewis Acid Catalysts,” Asian Core Program Lectureship to Korea 2016 (Host: Prof. Hee-Seung Lee), KAIST (Korea Advanced Institute of Science and Technology (韓国科学技術院)), Daejeon, Korea
- (300) 2017.5.17 Invited lecture “Multiselective Diels–Alder Reaction Induced by Chiral Supramolecular Lewis Acid Catalysts,” Asian Core Program Lectureship to Korea 2016 (Host: Prof. Duck-Hyung Lee), Sogang University (西江大学), Seoul, Korea
- (301) 2017.5.18 Invited lecture “Multiselective Diels–Alder Reaction Induced by Chiral Supramolecular Lewis Acid Catalysts,” Asian Core Program Lectureship to Korea 2016 (Host: Prof. Do Hyun Ryu), Sungkyunkwan University (成均館大学), Suwon, Korea
- (302) 2017.6.23 Invited lecture 「エステル・アミド縮合触媒及び酸化触媒の開発」、第2回「有機分子触媒による高度分子変換技術」講習会 主催：研究開発専門委員会「有機分子触媒による高度分子変換」、東京大学薬学部講堂
- (303) 2017.7.24–26 Oral Presentation “Chiral Nucophilic Amidophosphate-catalyzed Enantioselective Iodocyclization,” 18th Tetrahedron Sympoium Asia Edition, Melbourne, Australia, 24<sup>th</sup> July, 2017.
- (304) 2017.8.1 Invited lecture “Rational Design of Chiral Supramolecular Acid–Base Combined Catalysts,” Institute of Microbial Chemistry (微生物化学研究所), the Guest Seminar by Shibasaki laboratory (Host: Dr. Masakatsu Shibasaki, Chair: Dr. Naoya Kumagai)
- (305) 2017.10.9 招待講演「ハロゲンに魅せられて：次世代触媒の研究戦略」、あいちサイエンスフェスティバル2017「分子をつなぐキューピット！？」触媒が広げた化学の世界、名古屋大学東山キャンパス理学南館坂田・平田ホール
- (306) 2017.10.21 ショートプレゼンテーション「触媒で化学反応を意のままに操る」、有機・高分子化学専攻（化学生命工学科）、テクノ・フェア名大2017、IB電子情報館中棟1階、名古屋大学
- (307) 2017.11.7 Invited Lecture “Rational Design of Tunable Chiral Brønsted Acid Catalysts for Enantioselective Reactions,” Chiral India 2017, Mumbai, India, 7–8 Nov., 2017
- (308) 2017.11.20 Invited Lecture “Chiral Nucleophilic Amidophosphate-catalyzed Enantioselective Iodocyclization,” 1<sup>st</sup> Singapore Japan Germany Trilateral Symposium on Precision Synthesis & Catalysis, School of Physical and Mathematical Sciences, 20-21 Nov., 2017.
- (309) 2017.12.4 Designated lecture “Boronic Acid-Catalyzed Dehydrative Condensation Reaction Directed towards Peptide Synthesis,” The 2<sup>nd</sup> M&M SYNTHECH Unit International Meeting 2017, Venture Hall, Venture Business Laboratory, Nagoya University, 4 Dec., 2017.
- (310) 2018.3.12 Invited Lecture “Rational Design of High-Performance Catalysts Based on Acid–Base Combination Chemistry,” Peking University, Beijing, P. R. China (Host: Professor Zhi-Xiang Yu)
- (311) 2018.3.13 Awarded Lecture of Nankai University Lectureship on Organic Chemistry “Rational Design of High-Performance Catalysts Based on Acid–Base Combination Chemistry,” Nankai University, Tianjin, P. R. China (Host: Professor Gong Chen)  
<http://skleoc.nankai.edu.cn/en/class/view?id=161>
- (312) 2018.3.14 Invited Lecture “Rational Design of High-Performance Catalysts Based on Acid–Base Combination Chemistry,” Tianjin University, Tianjin, P. R. China (Host: Professor Yunfei Du)
- (313) 2018.3.22 3S1-01 CSJ Award Presentation “Rational Design of High-Performance Acid–Base Catalysts” The 98th CSJ Annual Meeting, Funabashi Campus, College of Science and Technology, Nihon University, Funabashi, Japan, March 20-23, 2018
- (314) 2018.5.15 Invited Lecture “Rational Design of High-Performance Acid–Base Catalysts,” Jiangxi Normal University (江西師範大学), Nanchang, P. R. China (Host: Professor Junfeng Zhao)
- (315) 2018.5.28 Invited lecture “Rational Design of High-Performance Acid–Base Catalysts,” Asian Core Program Lectureship to Hong Kong 2018 (Host: Prof. Ying Yeung Yeung), The Chinese University of Hong Kong (香港中文大学), Hong Kong
- (316) 2018.5.28 Invited lecture “Rational Design of High-Performance Catalysts Based on Acid Base Combination Chemistry,” Asian Core Program Lectureship to Hong Kong 2018 (Host: Prof. Hoi Lun Kwong), City University of Hong Kong (香港城市大学), Hong Kong

- (317) 2018.5.29 Invited lecture “Rational Design of High-Performance Catalysts Based on Acid Base Combination Chemistry,” Asian Core Program Lectureship to Hong Kong 2018 (Host: Prof. Ken Cham-Fai Leung, Hong Kong Baptist University (香港浸会大学), Hong Kong
- (318) 2018.5.29 Invited lecture “Rational Design of Amidation and Esterification Catalysts Based on Acid Base Combination Chemistry,” Asian Core Program Lectureship to Hong Kong 2018 (Host: Prof. Ying Yeung Yeung), The Chinese University of Hong Kong (香港中文大学), Hong Kong
- (319) 2018.6.11 Keynote “Cooperative System of Chiral Lewis Base Catalysts and Halo-Lewis Acids for Enantioselective Halocyclization,” ISXB3 (3rd International Symposium on Halogen Bonding), 2018.6.10–14, Hyatt Regency Hotel, Greenville, South Carolina, USA
- (320) 2018.6.15 Invited lecture “Rational Design of High Performance Catalysts Based on Acid–Base Combination Chemistry,” Special Organic Syntheses Lecture (Host: Prof. Scott A. Snyder), Searle Chemistry Laboratory, The University of Chicago, IL, USA
- (321) 2018.7.3 Invited lecture “IBS-Catalyzed Oxidation of Alcohols,” ICHIC 2018 (6th International Conference on Hypervalent Iodine Chemistry), 2018.7.1–4, Cardiff University, Cardiff, Wales, UK
- (322) 2018.7.6 Invited lecture “Rational Design of High–Performance Catalysts Based on Acid–Base Combination Chemistry,” The Mini-Symposium on Boron-catalysed Amidation: from Theory to Practice at Durham University, Durham University, Durham, England, UK
- (323) 2018.7.9 Invited lecture “Rational Design of High–Performance Catalysts Based on Acid–Base Combination Chemistry,” Seminar (Profs. Kilian Muñiz and Paolo Melchiorre), ICIQ (The Institute of Chemical Research of Catalonia), Spain
- (324) 2018.9.11 招待講演「酸塩基複合化学を基盤とする高機能触媒の設計」、大日本住友製薬 大阪研究所
- (325) 2018.9.21 口頭発表O-1 「B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>を触媒に用いる立体選択的Diels–Alder反応」、フルオラス科学研究会第11回シンポジウム（広島）、広島市立大学、要旨集p. 16.
- (326) 2018.10.3 非常勤講師 有機化学上級第五（医農薬化学）「酸塩基複合化学を基盤とする高機能触媒の設計（基礎編）」、東京工業大学理工学院応用化学系(ホスト: 田中健教授)、大岡山キャンパス
- (327) 2018.10.3 一般講演会 有機化学上級第五（医農薬化学）「酸塩基複合化学を基盤とする高機能触媒の設計」、東京工業大学理工学院応用化学系(ホスト: 田中健教授)、大岡山キャンパス
- (328) 2018.10.9 模擬講義「触媒をデザインして化学反応を自在に操る」、滝学園（窓口：進学指導主任 井戸康貴）
- (329) 2018.10.20 ショートプレゼンテーション「触媒の匠工房」  
セミナー 研究開発物語 「かたちあるプロトン酸(H<sup>+</sup>)触媒を分子設計する」  
テクノフェア名大2018、名古屋大学IB電子情報館
- (330) 2018.11.8 豊西総合大学講座「分子を繋ぐ触媒をデザインする」、愛知県立豊田西高等学校（窓口：進路指導部 辻井俊介）
- (331) 2018.11.15 OP-42 “Rational Design of High-Performance Catalysts Based on Acid–Base Combination Chemistry,” IKCOC-14 (The 14<sup>th</sup> International Kyoto Conference on New Aspects of Organic Chemistry), Rihga Royal Hotel Kyoto, Japan, November 12–16.
- (332) 2018.12.3 一般講演「ボロン酸触媒を用いるカルボン酸の活性化」、第11回有機触媒シンポジウム、学習院創立百周年記念会館、東京都豊島区目白、2018年12月 3–4日
- (333) 2018.12.14 招待講演「ヨウ素触媒を用いる環境低負荷型酸化反応の開発」、グリーンプロセスインキュベーションコンソーシアム(GIC)平成30年度第59回研修セミナー、産業技術総合研究所東北センター
- (334) 2019.1.22 依頼講演「U字型キラル超分子触媒を用いるプロパルギルアルデヒドのマルチ選択的Diels–Alder反応の開発」、波多野学, 阪本竜浩, 水野智一, 後藤優太, 石原一彰、第6回公開シンポジウム、メルパルク京都、2019年1月21–22日
- (335) 2019.3.11 Keynote Presentation “Rational design of high-performance catalysts based on acid–base combination chemistry,” 3<sup>rd</sup> Edition of International Congress on Catalysis and Chemical Science, Village Hotel Changi, March 11–13, 2019, Singapore.

- (336) 2019.3.20 依頼講演「反応を自在に操る触媒づくりのはなし」、名古屋大学オープンレクチャー2019、坂田・平田ホール、工学研究科1号館
- (337) 2019.6.5 招待講演「ヨウ素を触媒や反応剤に用いる反応開発」、CIRICセミナー No.2「ハロゲン結合の化学～ヨウ素の高度利用をめざして～」、千葉大学 千葉ヨウ素資源イノベーションセンター1階 講義室  
○石原一彰、西村和揮、山川勝也
- (338) 2019.6.14 一般講演 OP-6 「キラルπ-Cu(II)触媒を用いるエナンチオ選択的α-フッ素化反応 (Chiral π-copper(II) complex catalyzed enantioselective α-fluorination)」、モレキュラーキラリティーンポジウム2019、金沢商工会議所
- (339) 2019.7.25 Invited lecture “Rational Design of High-Performance Catalysts on Acid-Base Combination Chemistry,” Gordon Research Conference, Organic Reactions and Processes, Syntheses and Methods for Efficient and Novel Organic Reactions and Processes, 2019.7.21-26/Stonehill College, Easton, MA, USA
- (340) 2019.8.22 Keynote 2. “Green Catalysis on Esterification, Amidation, and Oxidation,” TCIA 2019 Taiwan Chemistry Forum, Taipei International Convention Center, Taiwan
- (341) 2019.8.23 Invited lecture “Development of highly efficient catalytic esterification, amidation, and oxidation,” Organic Seminar (Host: Prof. Jeffrey Chi-Sheng Wu and TCIA), National Taiwan University  
○Kazuaki Ishihara, Kazuki Nishimura, Katsuya Yamakawa, Keynote lecture KL13 “Enantio- and site-selective α-fluorination of *N*-acyl-3,5-dimethylpyrazoles catalyzed by chiral π-Cu(II) complexes,” 1st International Conference of Noncovalent Interractions (ICNI), 2019.9.2–6, Lisbon, Portugal
- (342) 2019.9.4 ○Kazuaki Ishihara, Kazuki Nishimura, Katsuya Yamakawa, Invited lecture IL17 “Enantio- and site-selective α-fluorination of *N*-acyl-3,5-dimethylpyrazoles catalyzed by chiral π-Cu(II) complexes,” HALCHEM IX, 2019.9.23–26, Perugia, Italy
- (343) 2019.9.26 招待講演「中分子酸塩基複合触媒の合理的設計」、学術講演会、主催：神戸大学大学院工学研究科 界面科学コロキウム、共催：名大鏡友会関西支部、会場：神戸大学大学院工学研究科5W-301講義室（世話役：森敦紀先生）  
○石原一彰、西村和揮、山川勝也、O-1: キラルπ-Cu(II)触媒によるエナンチオ選択的α-フッ素化反応、フルオラス科学研究会第12回シンポジウム（名古屋）、会場：名城大学
- (344) 2019.10.12 招待講演「触媒の匠の挑戦：作れるモノから作りたいモノへ」、テクノフェア名大2019 市民公開セミナー、名古屋大学IB館
- (345) 2019.10.18 講義「酸塩基複合化学を基盤とする高機能触媒の設計（基礎編）」  
講演「酸塩基複合化学を基盤とする高機能ハロゲン酸化触媒の設計」  
東京工業大学 南4号館 S423 講義室  
○Kazuaki Ishihara, Manabu Hatano, Kenji Yamashita, JO3: “Chiral Macroyclic O-Shaped Catalysts for Enantioselective Addition of Lithium Acetylides to Simple Ketones” 第4回精密制御反応国際シンポジウム、東大寺総合文化センター 金鐘ホール, 2019.12.3–5
- (346) 2019.10.19 依頼講演「ハロゲン結合を利用する触媒反応の開発」、日本薬学会第140年会、国立京都国際会館他、2020.3.25–28
- (347) 2019.11.13 依頼講演「「ヨウ素」の力」 2020 GTR Seeds Seminar (Teamsによるオンライン開催) in ITbm/GTRコンソーシアム2020年度第5回ワークショップ
- (348) 2019.12.3 招待講演「酸塩基複合化学を基盤とする精密触媒の設計」（座長：石崎謙一）、東亞合成株式会社R&D総合センター、名古屋市
- (349) 2020.3.26 (350) 2020.9.9 (351) 2020.10.5 (352) 2020.11.30–2020.12.1 大学院集中講義&公開講演会「酸塩基複合化学を基盤とする高機能触媒の設計」岡山大学大学院自然科学研究科（ホスト：坂倉彰教授）  
Invited lecture "The Power of Oxidative Iodine Catalysis" in Chiral India 2020 "New pharmaceutical technologies: Shaping the future of drug development" (14:30 to 17:30, 2-4 December 2020). <http://www.chiralindia.com/Brochure.pdf>
- (353) 2020.12.3 口頭発表「キラルπ-銅(II)触媒を用いるアシルピラゾールのエナンチオ選択的α-ハロゲン化反応」分子性触媒による高度分子変換技術第184委員会講習会（ZOOM）（座長：秋山隆彦教授）  
依頼講演「高機能触媒設計のための新結合様式の開拓」新春企画Zoom Webinar「新結合様式の開拓と機能の創製」（座長：荒井孝義教授）
- (354) 2020.12.16 口頭発表「キラルπ-銅(II)触媒を用いるアシルピラゾールのエナンチオ選択的α-ハロゲン化反応」分子性触媒による高度分子変換技術第184委員会講習会（ZOOM）（座長：秋山隆彦教授）  
依頼講演B講演 [A20-1am-04] Jie Qi Ng, Hiro Arima, Takuya Mochizuki, Kohei Toh, Kai Matsui, Manussada Ratanasak, Jun-Ya Hasegawa, Manabu Hatano, ○Kazuaki Ishihara, Chemoselective Transesterification of Methyl (Meth)acrylates Catalyzed by Sodium(I) or Magnesium(II) Aryloxides, 日本化学会第101春季年会（zoom）3/19~3/22
- (355) 2021.1.5
- (356) 2021.3.19

- (357) 2021.5.29 招待講演「環境に配慮した先進的機能触媒の開発を目指して」名大鏡友会講演会（座長：西山久雄名誉教授）（Zoom）
- (358) 2021.8.19 特別講演5「酸塩基複合化学を基盤とする不斉触媒の設計」第55回有機反応若手の会2021年8月18~20日（座長：網井秀樹教授）（Zoom）
- (359) 2021.10.16 ショートプレゼンテーション「【触媒の匠工房】環境に優しい触媒をデザインして、化学反応を自在に操る」テクノフェア名大2021（動画）
- (360) 2021.11.10 依頼講演「2021年ノーベル化学賞の対象になった有機分子触媒とその先を見据えて」豊北ユニバーシティ、愛知県立豊田北高等学校
- (361) 2021.11.20 招待講演「高難度不斉触媒反応開拓」  
新学術領域研究「精密制御反応場」終了後公開シンポジウム「高難度物質変換反応のさらなる展開をめざして」（Zoom）
- (362) 2021.11.22 招待講演「真に環境に優しい触媒的有機合成反応を目指して」第13回先端化学知の社会実装コロキウム（Zoom/早稲田大学研究開発センター）
- (363) 2021.12.18 Invited lecture “Catalytic selective transesterification reaction of methyl acrylates and methyl methacrylates” Pacifichem 2021 (Development of New Reactions and Technologies Adaptable to Process Chemistry (#366), Symposium organizers: S. Akai, T. Akiyama, Y. Hsiao, O. Onomura, H. Sajiki, S. You), Dec. 17–21, 2021 (zoom)
- (364) 2021.12.19 Invited lecture “Highly efficient oxidative reactions promoted by iodine-contained catalysts,” Pacifichem 2021 (Iodine Chemistry at the Dawn of Its Third Century (#375), Symposium organizers: Tatsuo Kahiho, Nicolay Tsarevsky, Atsushi Goto), Dec. 17–21, 2021 (zoom)
- (365) 2021.12.19 Invited lecture “Recent advances in ammonium hypiodite-catalyzed oxidative reactions” Pacifichem 2021 (New Aspects on Organocatalysts (#379), Symposium organizer: M. Terada, J. N. Johnston, C. Tan), Dec. 17–21, 2021 (zoom)
- (366) 2022.2.3 セミナー「ヨウ素を鍵とする環境に優しいモノづくり」（Zoom）  
アカデミックナイト 第18回 グリーン・サステイナブルケミストリー（主催：一般社団法人中部圏イノベーション推進機構）
- (367) 2022.5.31 特別講演「環境に優しい有機合成法を目指して」第34回環境工学連合講演会、日本学術会議主催、日本学術会議、座長：水川薰子（東京農工大学助教）
- (368) 2022.7.4 Plenary lecture “Rational Design of High-Performance Catalysts Based on Acid–Base Combination Chemistry” BOSSXVII (17<sup>th</sup> Belgian Organic Synthesis Sympsiun), July 3–8, 2022, Namur, Belgium
- (369) 2022.7.22 招待講演「大学の化学は楽しい！ 分子の世界：知る、見る、触る、作る」  
名古屋大学 学びの杜・学術コース、名古屋大学工学研究科1号館133講義室
- (370) 2022.9.6 Invited lecture (S02 IL-03) “Enantioselective  $\alpha$ -halogenation of *N*-acylpyrazoles catalyzed by  $\pi$ –Cu(II) complexes,” Kazuki Nishimura, Yanzhao Wang, Yoshihiro Ogura, and Katsuya Yamakawa, HALCHEM X (The 10th International Meeting on Halogen Chemistry), September 5 ~ 8, 2022/Łódź, Poland
- (371) 2022.11.7 Oral Presentation (O1) ○Kazuaki Ishihara, Kazuki Nishimura, Yanzhao Wang, Yoshihiro Ogura, Katsuya Yamakawa  
“Halogen Bonding Effect on Enantioselective  $\alpha$ -Halogenation Reaction Catalyzed by  $\pi$ –Cu(II) Complexes,” ISXB5 (5th International Symposium on Halogen Bonding), 2022.11.6~10/Kazusa Arc, Kisarazu, Chiba, Japan
- (372) 2023.3.23 Oral Presentation (K704-3am-04) ○Kazuaki Ishihara, Lu Yao, Kazuki Takeda, Kaori Ando, Natsuhsia Oka  
“Enantioselective Aromatic Claisen Rearrangement of Allyl 2-Naphthyl Ethers Catalyzed by  $\pi$ –Cu(II) Complexes,” The 103rd CSJ Annual Meeting (2023), 2023.3.22~25/Noda Campus, Tokyo University of Science, Chiba, Japan
- (373) 2023.4.27 口頭発表○石原一彰、安藤香織、岡夏央  
「グリーンケミストリーを指向するキラル  $\pi$ –銅(II)触媒を用いる不斉反応の開発と反応機構の解明」東海国立大学横断研究推進プロジェクト成果報告会オンライン（zoom ウェビナー）
- (374) 2023.5.6 講師：石原一彰  
特別講演「アカデミアの道」（座長：UYANIK Muhammet）  
学術講演会、名古屋市ホテルルブラン王山
- (375) 2023.6.16 OP-16 口頭発表○石原一彰, GUO Weiwei, 堀将宏, 小倉義浩, 西村和揮, 沖光脩, 井改知幸, 八島栄次(Kazuaki Ishihara,\* Weiwei Guo, Masahiro Hori, Yoshihiro Ogura, Kazuki Nishimura, Kosuke Oki, Tomoyuki Ikai, and Eiji Yashima)

- 「 $\pi$ -銅(II)触媒を用いるN-(3-ブチノイル)-3,5-ジメチルピラゾールのタンデム異性化/ $\alpha,\beta$ -位置及びエナンチオ選択的付加反応(Tandem isomerization/ $\alpha,\beta$ -site- and enantioselective addition reactions of N-(3-butynoyl)-3,5-dimethylpyrazole induced by chiral  $\pi$ -Cu(II) catalysts)」  
 Symposium on Molecular Chirality 2023 in Sapporo (MC2023), June 15–16, 2023  
 OC-7 Oral Communications ○Kazuaki Ishihara, Hiroki Tanaka, Muhammet Uyanik  
 “Hypoiodite-catalyzed Oxidative Umpolung of Indoles for Enantioselective Dearomatization”  
International Conference on Hypervalent Iodine Chemistry (ICHIC 7), Stockholm University, Sweden, June 25–28, 2023
- (377) 2023.7.21  
 講師：石原一彰  
 「大学の化学は楽しい！ 分子の世界：知る、見る、触る、作る」  
2023年度 学びの杜・学術コース  
 主催：名古屋大学 大学院教育発達科学研究科附属 高大接続研究センター  
 開催場所：名古屋大学工学研究科1号館144講義室（1限、2限）
- (378) 2023.10.11  
 Plenary Lecture Kazuaki Ishihara  
 PL-9-F “Enantioselective Radical Cation [2+2] and [4+2] Cycloaddition of Chalcone Derivatives by Chiral Iron(III) Photoredox Catalysis”  
2023 International Conference on Photochemistry and Industry (ICPI2023), Wuhan, China, October 10–13, 2023
- (379) 2023.10.31  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 ShanghaiTech University, Shanghai, China (Host: Professor Zhi Li)
- (380) 2023.11.1  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 Shanghai Institute of Organic Chemistry (SIOC), Shanghai, China (Host: Professor Shuli You)
- (381) 2023.11.2  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 College of Chemistry, Sichuan University, Chengdu, China (Host: Professor Da-Gang Yu)  
 招待講演IL-1：山下賢二、多畠勇志、山川勝也、望月拓哉、松井開、波多野学、○石原一彰  
 「リチウムアセチリドのケトンへのエナンチオ選択的付加反応に有効なキラル大環状シリチウム塩触媒の開発」  
第16回有機触媒シンポジウム、2023年11月27-28日、主催：有機触媒研究会  
 東北大大学院理学研究科大講義室
- (382) 2023.11.27  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 College of Chemistry, Tianjin University, Tianjin, China (Host: Professor Yunfei Du)
- (383) 2023.12.12  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 College of Chemistry, Nankai University, Tianjin, China (Host: Professor Chi Zhang)
- (384) 2023.12.13  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 College of Chemistry, Lanzhou University, Lanzhou, China (Host: Professor Chun-An Fan)
- (385) 2023.12.15  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 College of Chemistry, Xi'an Jiatong University, Xi'an, China (Host: Professor Le Liu)
- (386) 2023.12.16  
 Invited lecture Kazuaki Ishihara  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 College of Chemistry, Xi'an Jiatong University, Xi'an, China (Host: Professor Le Liu)
- (387) 2024.1.30  
 Invited lecture 石原一彰  
 酸塩基複合触媒(ABC Catalysis)  
 GTR Tea Break, 名古屋大学工学研究科1号館10階1023室（1101講義室）
- (388) 2024.03.07  
 依頼講義「化学がわからればあなたの人生がより豊かになる」  
 名古屋大学教育学部附属中・高等学校 座長：大羽徹教諭（主催：名古屋大学高大接続研究センター 高橋まりな特任助教）
- (389) 2024.04.08  
 Invited lecture Kazuaki Ishihara (2024 Swiss Chemical Society Lectureship)  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 Department of Organic Chemistry, University of Geneva, Geneva, Switzerland (Host: Professor Jérôme Lacour)
- (390) 2024.04.09  
 Invited lecture Kazuaki Ishihara (2024 Swiss Chemical Society Lectureship)  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
 Department of Chemistry, University of Zürich, Zürich, Switzerland (Host: Professor Ilija Coric)
- (391) 2024.04.10  
 Invited lecture Kazuaki Ishihara (2024 Swiss Chemical Society Lectureship)  
 Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry

- Department of Chemistry, EPFL (École polytechnique fédérale de Lausanne), Laussane,  
Switzerland (Host: Professor Jérôme Waser)  
(392) 2024.04.11 Invited lecture Kazuaki Ishihara (2024 Swiss Chemical Society Lectureship)  
Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
Department of Chemistry, Biochemistry and Pharmaceutical Sciences, University of Bern, Bern,  
Switzerland (Host: Professors Eva Hevia and Natalie Banerji)  
(393) 2024.04.12 Invited lecture Kazuaki Ishihara (2024 Swiss Chemical Society Lectureship)  
Rational Design of High-Perfomance Catalysts Based on Acid–Base Combination Chemistry  
Department of Chemistry, University of Basel, Basel, Switzerland (Host: Professor Cristof Sparr)