CURROCULUM VITAE (10th April, 2012)

Kazuaki Ishihara

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BIRTH

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

EDUCATION

1981–1985: Bachelor of Engineering (under the supervision of Professor Hisashi Yamamoto), Department of Applied Chemistry, School of Engineering, Nagoya University

1985–1987: Master of Engineering (under the supervision of Professor Hisashi Yamamoto), Department of Applied Chemistry, Graduate School of Engineering, Nagoya University

1987–1991: 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 Deaprtment 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 10th Inoue Research Award for Young Scientists, 1994 (The Inoue Foundation for Science)
"Studies on stereoselective reactions of acetals"

(4) The 45th 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 2nd 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 1st 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"
0th 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"
0th 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 21st 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 5th 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"

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) 2007–2009 Editorial Board of "**Research Letters in Organic Chemistry**", Hindawi Publishing Corporation, Egypt
2010– Editorial Board of "**Organic Chemistry International**", Hindawi Publishing Corporation, Egypt
http://www.hindawi.com/journals/oci/

(3) 2011– International Advisory Board of "**European Journal of Organic Chemistry**", Wiley-VCH Verlag GmBH & Co. KGaA, Weinheim
http://www3.interscience.wiley.com/journal/27380/home?CRETRY=1&SRETRY=0

PRINCIPLE AREAS OF RESERACH

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

His current research is the development of catalytic organic reactions and processes directed towards green chemistry.

PUBLICATIONS

Communications and full papers

(1) "Reductive cleavages of α,β-alkynyl acetals. New route to optically pure propargylic alcohols"
Kazuaki Ishihara, Atsunori Mori, Isao Arai, Hisashi Yamamoto
Tetrahedron Lett. **1986**, *27*(4), 983–986.

(2) "Reductive cleavages of chiral acetals using Lewis acid-hydride system"

Atsunori Mori, Kazuaki Ishihara, Hisashi Yamamoto
Tetrahedron Lett. **1986**, *27*(8), 987–990.
(3) "Reductive cleavages of homochiral acetals: Inversion of the stereochemistry"
Atsunori Mori, Kazuaki Ishihara, Isao Arai, Hisashi Yamamoto
Tetrahedron **1987**, *43*(4), 755–764.
(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.
(5) "Diastereoselective aldol synthesis using acetal templates"
Kazuaki Ishihara, Hisashi Yamamoto, Clayton H. Heathcock
Tetrahedron Lett. **1989**, *30*(14), 1825–1828.
(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 (Nov.).
(7) "Acyclic Stereoselection 50. New stereoselective propanal/propanpic acid synthons for aldol reactions"
Ichiro Mori, Kazuaki Ishihara, Clayton H. Heathcock
J. *Org*. *Chem*. **1990**, *55*(3), 1114–1117 (Feb. 2).
(8) "Stereoselective reduction of bicyclic acetals. A method for reductive generation of heterocyclic ring systems"
Kazuaki Ishihara, Atsunori Mori, Hisashi Yamamo
Tetrahedron **1990**, *46*(13–14), 4595–4612.
(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 (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, Hisahi Yamamoto, Paul A. Bartlett, Clayton H. Heathcock
J. *Org*. *Chem*. **1990**, *55*(25), 6107–6115 (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 (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 (Nov. 3).
(13) "Reductive cleavage of chiral acetals using new aluminum catalyst"
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto
Synlett **1993**, (2), 127–129 (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 (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 (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 (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 (Nov.).
(18) "Highly diastereoselective acetal cleavages using novel reagents prepared from organolauminum and pentafluorophenol"

Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto
J. Am. Chem. Soc. **1993**, *115*(23), 10695–10704 (Nov. 17).
(19) "Enantioselective Diels-Alder reaction of α-bromo-α,β-enals with dienes under catalysis by CAB"
Kazuaki Ishihara, Qingzhi Gao, Hisashi Yamamoto
J. Org. Chem. **1993**, *58*(24), 6917–6919 (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 (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
Tetrahderon Lett. **1993**, *34*(52), 8399–8402 (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 (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 (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 (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 (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 (Nov. 16).
(27) "Lewis acid assisted chiral Brønsted acid (LBA) for enantioselective protonation of silyl enol ethers and ketene bis(trialkylsilyl) acetals"
Kazuaki Ishihra, Masanobu Kaneeda, Hisashi Yamamoto
J. Am. Chem. Soc. **1994**, *116*(24), 11179–11180 (Nov. 30).
(28) "A concise synthesis of (+)-(*S*)-dihydroperiphylline"
Kazuaki Ishihara, Yoshichika Kuroki, Hisashi Yamamoto
Synlett **1995**, (1), 41–42 (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 (Apr. 19).
(30) "Highly regio- and stereo-selective annulation-elimination reaction of 1-cycloalkenyl 3-hydroxypropyl ethers: A novel approach to 2-substituted δ-lactones, macrocyclic oxolactones, and bicyclic hydroxyethers"
Kazuaki Ishihara, Naoyuki Hanaki, Hisashi Yamamoto
J. Chem. Soc., Chem. Commun. **1995**, (11), 1117–1118 (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 (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 (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 (May 20).

(34) "Antimony-templated macrolactamization of tetraamino esters. Facile synthesis of macrocyclic alkaloids, (±)-Buchnerine, (±)-Verbacine, (±)-Verbaskine, (±)-Verbascenine
Kazuaki Ishihara, Yoshichika Kuroki, Naoyuki Hanaki, Suguru Ohara, Hisashi Yamamoto
J. Am. Chem. Soc. **1996**, *118*(6), 1569–1570 (Feb. 14).
(35) "Enantioselective protonation of ketene bis(trimethylsilyl) acetals derived from α-aryl-α-haloacetic acids using LBA"
Kazuaki Ishihara, Shingo Nakamura, Hisashi Yamamoto
Croat. Chem. Acta **1996**, 69(2), 513–517 (Jun).
(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 (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 (Jul. 12)
(38) "A new scandium complex as an exteremely active acylation catalyst"
Kazuaki Ishihara, Manabu Kubota, Hisashi Yamamoto
Synlett **1996**, (3), 265–266 (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 (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 (Sep.).
(41) "Practical synthesis of α-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 (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 (May 16).
(44) "Diarylborinic acids as efficient catalysts for selective dehydration of aldols"
Kazuaki Ishihara, Hideki Kurihara, Hisashi Yamamoto
Synlett, **1997**, (5), 597–599 (May).
(45) "First enantioselective protonation of prochiral allyltrimethyltins using LBA"
Kazuaki Ishihara, Yuji Ishida, Shingo Nakamura, Hisashi Yamamoto
Synlett **1997**, (7), 758–760 (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 (Aug. 22).
(47) "Metal-templated macrolactamization of triamino and tetramino esters. Facile synthesis of macrocyclic spermidine and spermine alkaloids, (*S*)-(+)-Dihydroperiphylline, (±)-Buchnerine, (±)-Verbacine, (±)-Verbaskine, and (±)-Verbascenine"
Yoshichika Kuroki, Kazuaki Ishihara, Naoyuki Hanaki, Suguru Ohara, Hisashi Yamamoto
Bull. Chem. Soc. Jpn. **1998**, *71*(5), 1221–1230 (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 (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 (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 (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 (Oct.).
(52) “The first enantioselective biomimetic cyclization of polyprenoids”
Kazuaki Ishihara, Shingo Nakamura, Hisashi Yamamoto
J. Am. Chem. Soc. **1999**, *121*(29), 4906–4907 (May 26).
(53) “A new and extremely active Corey’s chiral oxazaborolidine catalyst”
Kazuaki Ishihara, Shoichi Kondo, Hisashi Yamamoto
Synlett **1999**, (8), 1283–1285 (Aug.).
(54) “Chiral SEM ether–tin tetrachloride as an enantioselective hydroxymethylating reagent for silyl enol ethers: γ-Effect of silicon”
Kazuaki Ishihara, Hiroko Nakamura, Hisashi Yamamoto
J. Am. Chem. Soc. **1999**, *121*(33), 7720–7721 (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 (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 (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 (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 (Aug. 30).
(59) “Pyrolysis of benzenediazonium bis(trifluoromethanesulfonyl)methide”
Kazuaki Ishihara, Aiko Hasegawa, Hisashi Yamamoto
J. Fluorine Chem. **2000**, *106*(2), 139–141 (Dec.).
(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 (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.
(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 (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 (Dec. 29).
(64) “Enantioselective biomimetic cyclization of homo(polyprenyl)arenes. A new entry to (+)-podpcarpa-8,11,13-triene diterpenoids and (–)-tetracyclic polyprenoid of sedimentary origin”
Kazuaki Ishihara, Hideaki Ishibashi, Hisashi Yamamoto
J. Am. Chem. Soc. **2001**, *123*(7), 1505–1506 (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 (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 (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 (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 (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.
(70) “A high yield procedure for the Me_3SiNTf_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 (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.
(72) “Enantio- and diastereoselective stepwise cyclization of polyprenoids induced by chiral and achiral LBAs. A new entry to (–)-ambrox®, (+)-podocarpa-8,11,13-triene diterpenoids, and (–)-tetracyclic polyprenoid of sedimentary origin
Kazuaki Ishihara, Hideaki Ishibashi, Hisashi Yamamoto
J. Am. Chem. Soc. **2002**, *124*(14), 3647–3655 (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 (Jul. 26).
(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 (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.
(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.
(77) "Single-pass reaction column system with super Brønsted acid-loaded resin"
Kazuaki Ishihara, Aiko Hasegawa, Hisashi Yamamoto
Synlett **2002**, (8), 1296–1298 (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 (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 (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 (Feb.).
(81) "A new method for the preparation of aluminum and titanium tris(2,6-diphenylphenoxide) reagents and their application in organic synthesis"
Atsushi Sato, Asuka Hattori, Kazuaki Ishihara, Susumu Saito, Hisashi Yamamoto
Chem. *Lett*. **2003**, *32*(11), 1006–1007 (Nov. 5).
(82) "Aldol synthesis with an aqueous solution of formalin"
Nobuko Ozasa, Manabu Wadamoto, Kazuaki Ishihara, Hisashi Yamamoto
Synlett **2003**, (14), 2219–2221 (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.
(84) "Chiral molecular recognition by aluminum tris(2,6-diphenylphenoxide) 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.
(85) "Asymmetric vinylogous direct aldol reaction using aluminum tris[2,6-bis(4-alkylphenyl)phenoxide]"
Hiroshi Takikawa, Kazuaki Ishihara, Susumu Saito, Hisashi Yamamoto
Synlett **2004**, (4), 732–734 (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.
(87) "Synthesis of carboxaimdes by LDA-catalyzed Haller–Bauer and Cannizzaro reactions"
Kazuaki Ishihara, Takayuki Yano
Org. *Lett*. **2004**, *6*(12), 1983–1986 (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 (Jul. 22).
(89) "Arylboronic acid-catalyzed direct condensation of carboxylic acids with ureas"
Toshikatsu Maki, Kazuaki Ishihara, Hisashi Yamamoto
Synlett **2004**, (8), 1355–1358 (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 (Sep.).
(91) "A new artificial cyclase for polyprenoids: 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 (Sep. 15).

(92) “Rational design of an L-histidine-derived minimal artificial acylase for the kinetic resolution of racemic alcohols”
Kazuaki Ishihara, Yuji Kosugi, Matsujiro Akakura
J. Am. Chem. Soc. **2004**, *126*(39), 12212–12213.
(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 (Feb. 17).
(94) “Synthesis of (all-*rac*)-α-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)*** (Feb.).
(95) “Bulky diarylammonium arenesulfonates as selective esterification catalysts”
Kazuaki Ishihara, Shoko Nakagawa, Akira Sakakura
J. Am. Chem. Soc. **2005**, *127*(12), 4168–4169 (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 (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 (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 (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 (Sep. 1).
(100) “Zr(IV)–Fe(III), –Ga(III), and –Sn(IV) binaryl 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 (Aug.).
(101) “Facile synthesis of aryl- and alkyl-bis(trifluoromethylsulfonyl)methanes” ***(Selected as a BCSJ award artcile)***
Aiko Hasegawa, Takuo Ishikawa, Kazuaki Ishihara, Hisashi Yamamoto
Bull. Chem. Soc. Jpn. **2005**, *78*(8), 1401–1410 (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 (Aug. 10).
(103) “Design of an organocatalyst for the enantioselective Diels–Alder reaction with α-acyloxyacroleins”
Kazuaki Ishihara, Kazuhiko Nakano
J. Am. Chem. Soc. **2005**, *127*(30), 10504–10505; *127*(37), 13079 (additions and corrections) (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 (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***) (Oct.).
(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.

(107) "*N*-Alkyl-4-boronopyridinium halides versus boric acid as catalysts for the esterification of α-hydroxycarboxylic acids"
Toshikatsu Maki, Kazuaki Ishihara, Hisashi Yamamoto
Org. Lett. **2005**, *7*(22), 5047–5050 (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)*** (Jan. 9).
(109) "Design of chiral macrocyclic complexes based on *trans*-chelation of n:n metal–bidenatete *P*,*N*- or *P*,*P*-ligands"
Manabu Hatano, Takafumi Asai, Kazuaki Ishihara
Chem. Lett. **2006**, *35*(2), 172–173 (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 (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 (Mar. 30).
(112) "Design of a small-molecule catalyst using intramolecular cation–π 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 (Apr. 27).
(113) "Chiral 1,1'-binaphthyl-2,2'-diammonium salt catalysts for the enantioselective Diels–Alder reaction with α-acyloxyacroleins"
Akira Sakakura, Kenji Suzuki, Kazuhiko Nakano, Kazuaki Ishihara
Org. Lett. **2006**, *8*(11), 2229–2232 (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 (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 (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 (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*)** (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***) (Aug.).
(119) "Catalytic diastereoselective polycyclization of homo(polyprenyl)arene analogues bearing terminal siloxyvinyl groups"
Muhammet Uyanik, Kazuaki Ishihara, Hisashi Yamamoto
Org. Lett. **2006**, *8*(24), 5649–5652 (Nov. 23).

(120) “Enantioselective Diels–Alder reaction of α-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)*** (Nov.).

(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)***.

(122) “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.

(123) “Perrhenic acid-catalyzed dehydration from primary amides, aldoximes, *N*-monoacylureas, and α-substituted ketoximes to nitrile compounds”
Yoshiro Furuya, Kazuaki Ishihara, Hisashi Yamamoto
Bull. Chem. Soc. Jpn. **2007**, *80*(2), 400–406 (Feb. 15).

(124) “Enantioselective halocyclization of polyprenoids induced by nucleophilic phosphoramidites”
Akira Sakakura, Atsushi Ukai, Kazuaki Ishihara
Nature **2007**, *455*(7130), 900–903 (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)***).

(126) “Kinetic resolution of racemic alcohols catalyzed by minimal artificial acylases derived from L-histidine”
Yuji Kosugi, Matsujiro Akakura, Kazuaki Ishihara
Tetrahedron **2007**, *63*(27), 6191–6203 ***(Symposia-in-Print: Tetrahedron 50th Anniversary Issue (Part 2), edited by Stephen F. Martin)*** (Jul. 22).

(127) “Dehydrative cyclizaion 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 60th birthday***) (Mar.).

25(128) “New boron(III)-catalyzed amide and esteshikatsu 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)*** (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 (Jul.).

(130) “Direct ester condensation catalyzed by bulky diarylammonium pentafluorobenzenesulfonates”
Akira Sakakura, Shoko Nakagawa, Kazuaki Ishihara
Nature Protocols **2007**, *2*(7), 1746–1751.

(131) “Enantioselective [2+2] cycloaddition of unsaturated alkenes with α-acyloxyacroleins catalyzed by chiral organoammonium salts”
Kazuaki Ishihara, Kazuhiko Nakano
J. Am. Chem. Soc. **2007**, *129*(29), 8930–8931 (***a most-accessed communication (the 15th-ranking article): July–September, 2007***) (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 (Oct. 25).

(133) “Highly active chiral phosphoramide-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 (Oct. 25).
(134) “Bulky phosphazenium 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***).
(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 (Nov. 28).
(136) “Enantioselective conjugate addition of dialkylzinc to cyclic enones catalyzed by chiral binaphthyldiamine-copper(I) complexes”
Manabu Hatano, Takagumi Asai, Kazuaki Ishihara
Tetrahderon Lett. **2007**, *48*(49), 8590–8594 (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 (Jan. 7).
(138) “Catalytic enantioselective [2+4] and [2+2] cycloadditio reactions with propiolamides”
Kazuaki Ishihara, Makoto Fushimi
J. Am. Chem. Soc. **2008**, *130*(24), 7532–7533 (Jun. 18).
(139) “Zwitterionic salts as mild organocatalysts for transesterification”
Kazuaki Ishihara, Masatoshi Niwa, Yuji Kosugi
Org. Lett. **2008**, *10*(11), 2187–2190 (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)*** (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.
(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 (Jun. 19).
(144) “Organocatalytic enantioselective Diels–Alder reaction of dienes with α-(*N*,*N*-diacylamino)acroleins”
Kazuaki Ishihara, Kazuhiko Nakano, Matsujiro Akakura
Org. Lett. **2008**, *10*(13), 2893–2896 (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 (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 (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 (Aug.).

(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 (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***) (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 50th Anniversary***) (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 (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***) (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 Bioorgaic and Medicinal Chemistry in honor of its recipient Professor Carlos F. Barbas***) (Jul. 15).

(154) "Chiral lanthanum(III)-binaphthyldisulfonate complexes for catalytic enantioselective Strecker reaction"
Manabu Hatano, Yasushi Hattori, Yoshiro Furuya, Kazuaki Ishihara
Org. Lett. **2009**, *11*(11), 2321–2324 (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 (Aug. 6).

(156) "Rational design of highly effective asymmetric Diels–Alder catalysts bearing 4,4'-sulfonamidomethyl groups"
Akira Sakakura, Rei Kondo, Yuki Matsumura, Matsujiro Akakura, Kazuaki Ishihara
J. Am. Chem. Soc. **2009**, *131*(49), 17762–17764 (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 (Jan. 13).

(158) "Highly chemoselective stoichimetric 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***) (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***; ***1st-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***).

(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*)** (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.

(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***).

(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***).

(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 80th Birthday Celebration Special issue – Part 1, Guest Editors: Jean-Calude Flaud and John M. Brown***) (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**)* (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 (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***) (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.

(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)***) (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***) (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 (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 (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 (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 (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***).
(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***).
(177) “In situ generated (hypo)iodite catalysts for the direct α-oxyacylation of carbonyl compounds with carboxylic acids”
Muhammet Uyanik, Daisuke Suzuki, Takeshi Yasui, Kazuaki Ishihara
Angew. Chem. Int. Ed. **2011**, *50*(23), 5331–5334.
(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.
(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.
(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 (1st ranking)***) (Sep. 20).
(181) “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.
(182) “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.
(183) “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***) (Nov. 16).
(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”
Takuya Ozaki, Manabu Hatano, Kazuaki Ishihara
Chem. Commun. **2012**, 48, 4273–4283. **DOI:** 10.1039/C2CC00046F (First published on the web 22 Mar 2012).

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 recations”
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 (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 β-amino esters via double stereodifferentiation”
Kazuaki Ishihara, Kouji Hattori, Hisashi Yamamoto
In *Enantioselective Synthesis of β-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 (May).
(9) “Combination of Lewis acid and Brønsted acid”
Kazuaki Ishihara
Chemistry and Engineering **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 (Jan.).
(11) “Designer Lewis acids for selective organic synthesis”
Hisashi Yamamoto, Akira Yanagisawa, Kazuaki Ishihara, Susumu Saito
Pure &Appl. Chem. **1998**, *70*(8), 1507-1512 (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 (Mar.).
(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.
0(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) "(*R*)-2-Hydroxy-2'-Methoxy-1,1'-Binaphthyl"
Kazuaki Ishihara, Hisashi Yamamoto
In *Electronic Encyclopedia of Reagents for Organic Synthesis*, Paquette, L. A., Ed.; John Wiley & Sons Inc., 2001.
(21) "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.
(22) "Development of ester condensation and amide condensation reactions using Lewis acid"
Kazuaki Ishihara, Hisashi Yamamoto *Kagaku to Kogyo* **2001**, *54*(9), 1061–1063.
(23) "Development of highly atom-economic ester condensation and amide condensation reactions" Kazuaki Ishihara, Hisahsi Yamamoto
Kyoei **2002**, (113), 23–38.
(24) "Chiral proton donor reagents: Tin tetrachloride–coordinated optically active banaphthol derivatives"
Hideaki Ishibashi, Kazuaki Ishihara, Hisashi Yamamoto
The Chemical Record **2002**, *2*(3), 177–188.
(25) "Design of Super Lewis acid and Brønsted acid catalysts"
Kazuaki Ishihara, Hisashi Yamamoto
TCI mail **2002**, No. 115, 2–26.
(26) "New development in fluorous chemistry"
Kazuaki Ishihara
Kagaku to Kogyo **2002**, 55(8), 865–868.
(27) "Development of catalyst utilizing fluorine characteristics"
Kazuaki Ishihara, Hisashi Yamamoto
Kagaku **2002**, *57*(8), 30–33.
(28) "Conversion to green and efficient organic reaction processes"
Kazuaki Ishihara
Kagaku Kogyo **2003**, *54*(1), 28–34.
(29) "Polymerization catalyzed by highly efficient novel Lewis acid"
Kazuaki Ishihara
Kobunshi **2003**, *52*(4), 272.
(30) "Application of environmentally friendly type catalyst for highly effective organic synthesis"
Kazuaki Ishihara
Fine Chemical **2003**, *32*(20), 21–34.
(31) "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.
(32) "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.
(33) "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.
(34) "Fluorous-tagged tetrafluorophenylbis(trifyl)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.
(35) "(*R**,*R**)-α-(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 Wiely & Sons Inc.: New York, 2003, pp 230–232.
(36) "(*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 Wiely & Sons Inc.: New York, 2003, pp 365–370.
(37) "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.
(38) "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.
(39) "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.
(40) "Design of small molecular artificial enzyme using histidine frame"
Yuji Kosugi, Kazuaki Ishihara
Kagaku **2005**, *60*(4), 72–73.
(41) "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.
(42) "Chapter 3. Design of reusable acid catalsysts"
Kazuaki Ishihara
In *Fluorous Chemistry*, Junzo Otera Ed.; Catalyst: Application to Others, Vol. 3, CMC, 2005, pp. 161–169.
(43) "Development of environmentally benign dehydrative condensation reaction catalyzed by boron compounds"
Kazuaki Ishihara
Organic Square **2006**, No. 16, 1–4.
(44) "Design of ester dehydrative condensation catalysts bearing a hydrophobic function"
Kazuaki Ishihara
Kagaku Kogyo **2006**, 57(6), 426–430.
(45) "Development of environmentally benign and catalytic dehydration reaction processes"
Akira Sakakura, Kazuaki Ishihara
J. Org. Synth. Chem. **2006**, *64*(6), 651–663.
(46) "Breakthrough to synthesize tertiary alcohols – Highly efficient addition reaction of Grignard reagents to ketones through ate complexes" Manabu Hatano, Kazuaki Ishihara
Kagaku **2006**, *61*(11), 68–69.
(47) "Chapter 10. Design of acid-base combined chiral organocatalysts"
Kazuaki Ishihara
In *New Developments of Organocatalysts*, Masakatsu Shibasaki Ed., CMC, 2006, pp. 126–136.
(48) "Recent progress in selective additions of organometal reagents to carbonyl compounds"

Manabu Hatano, Takashi Miyamoto, Kazuaki Ishihara
Current Organic Chemistry **2007**, *11*(2), 127–157.

(49) "Challenge of preparation of ideal alkylation reagents – Development of the most efficient reaction to synthesize tertiary alcohols"

Manabu Hatano, Shinnji Suzuki, Kazuaki Ishihara

Kagaku **2007**, *62*(3), 16–20.

(50) "Chapter 4.1.1 Introduction" and "Chapter 4.1.2 Development of artificial small-molecule catalysts which are suprior to natural ennzymes"

Kazuaki Ishihara
Nature-guided material processing, Sankyo Press, **2007**, pp. 207–211.

(51) "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.

(52) "Chiral Brønsted/Lewis acid catalysts"

Kazuaki Ishihara and Hisashi Yamamoto In *New Frontiers in Asymmetric catalysis*

Koichi Mikami and Mark Lautens, Eds.; John Wiely & Sons, Inc., Hoboken, New Jersey, 2007, pp. 359–381.

(53) "Chapter 17. Dehydrative condensation reaction promoteded by ionic liquid-immobilized catalysts" Kazuaki Ishihara *Renaissance of immobilized catalyst*, Eds. Shu Kobayashi and Hidekazu Oyamada, CMC Press, 2007, pp. 224–238.

(54) "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.).

(55) "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 (Oct.).

(56) "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.

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

(58) "Development of Highly Efficient Acid–Base Combination Catalyses Based on Carbon–Metal Bonds Activation in Organometallic Reagents"

Manabu Hatano, Kazuaki Ishihara

J. Org. Synth. Chem. **2008**, *66*(6), 564–577.

(59) "Catalytic enantioselective organozinc addition toward optically active tertiary alcohol synthesis"

Manabu Hatano, Kazuaki Ishihara

Chem. Rec. **2008**, *8*(3), 143–155.

(60) "Recent progress in the catalytic synthesis of tertiary alcohols from ketones with organometallic reagents"

Manabu Hatano, Kazuaki Ishihara

Synthesis **2008**, (11), 1647–1675 (Jun. 2).

(61) "Developemnt of highly efficient ester condensation reactions"

Kazuaki Ishihara
Tosoukougaku **2008**, *43*(8), 274–286.

(62) "Dehydrative condensation catalyses"

Kazuaki Ishihara

Tetrahedron **2009**, *65*(6), 1085–1109 (***Tetrahedron Report***) (Feb. 7).

(63) "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***).

(64) "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 (Oct.).

(65) "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.

(66) "Organoammonium salt-catalyzed enantioselective cycloaddition reactions with α-(acyloxy)- or α-(*N,N*-diacylamino)acroleins"
Akira Sakakura, Kazuaki Ishihara
Bull Chem. *Soc*. *Jpn*. **2010**, *83*(4), 313–322 (Apr. 15).

(67) "No. 140　α-置換型アクロレインの不斉付加環化反応(Asymmetric cycloaddition of α-substituted acroleis)"
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.

(68) "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.

(69) "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.

(70) "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.

(71) "酸塩基複合触媒(Acid-base combined catalyses)"
石原一彰
ファインケミカル **2010**, *139*(8), 33–41, シーエムシー出版

(72) "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"
石原一彰
ファルマシア **2010**, *46*(8), 737–744.

(73) "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"
石原一彰
触媒 **2010**, *52*(7), 497–502.

(74) 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」
石原一彰, Muhammet Uyanik, *化学* **2010**, *65*(10), 12–17.

(75) "Highly practical BINOL-derived acid–base combined salt catalysts for the asymmetric direct Mannich-type reaction **(*Feature aricle*)**"
Manaubu 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))*** (Nov.).

(76) "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.

(77) "Asymmetric Cu(II) catalyses for cycloaddition reactions based on π–cation or *n*–cation interaction"
Akira Sakakura, Kazuaki Ishihara
Chem. Soc. Rev. **2011**, *40*(1), 163–172.

(78) “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 Ishhara)
SIS Report(*ヨウ素学会会報*) **2010**, (13), 136–145 (SIS (The Society of Iodine Science)).
(79) “2-Iodoxybenzenesulfonic acid (IBS) catalyzed oxidation of alcohols”
Muhammet Uyanik, Kazuaki Ishihara
Aldrichimica Acta **2010**, *43*(3), 83–91.
(80) “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.).
(81) “酸塩基複合化学を基盤とする高機能触媒の創製”
石原一彰
未来材料 **2011**, *11*(4), 11–19.
(82) “非共有結合相互作用を利用したキラル超原子ヨウ素触媒の開発：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.
(83) “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）
(84) “Catalysis with in situ-generated (hypo)iodite ions for oxidative coupling reactions”
Muhammet Uyanik, Kazuaki Ishihara
ChemCatChem **2011**, *4*(2), 177–185 (Article first published online: 23 DEC 2011), DOI: 10.1002/cctc.201100352
(85) “工業化を指向した触媒的エステル交換反応の開発”
波多野学, 石原一彰
科学と工業 **2012**, *86*(1), 3–10.
(86) “Conformationally flexible chiral supramolecular catalysts for enantioselective Diels–Alder reactions with anomalous endo/exo selectivities”
Manabu Hatano, Kazuaki Ishihara
Chem. Commun. **2012**, DOI: 10.1039/C2CC00046F (***Invited feature article***) (March 22, 2012)

Others
(1) “キラルシントン”
Kazuaki Ishihara, Hisashi Yamamoto
化学 **1990**, *45*, 1, 53.
(2) “Allenylboronic acid”
Kazuaki Ishihara, Hisashi Yamamoto
In *Encyclopedia of Reagents for Organic Synthesis*, John Wiely & Sons Inc.: New York, 1995, Vol. 1, pp 83-85.
(3) “Aluminum isopropoxide”
Kazuaki Ishihara, Hisashi Yamamoto
In *Encyclopedia of Reagents for Organic Synthesis*, John Wiely & Sons Inc.: New York, 1995, Vol. 1, pp 165-169
(4) “(*R**,*R**)-α-(2,6-Diisopropoxybenzoyloxy)-5-oxo-1,3,2-dioxaborolane-4-acetic acid
Kazuaki Ishihara, Hisashi Yamamoto
In *Encyclopedia of Reagents for Organic Synthesis*, John Wiely & Sons Inc.: New York, 1995, Vol. 3, pp 1919-1921.
(5) “Methylmagnesium *N*-cyclohexylisopropoylamide”
Kazuaki Ishihara, Hisashi Yamamoto
In *Encyclopedia of Reagents for Organic Synthesis*, Leo A. Paquette, Editor-in-Chief; David Crich, Philip L. Fuchs, Gary A. Molander, Exectutive Editors; John Wiely & Sons Inc.: New York, 1995, Vol. 5, pp 3536-3537.
(6) “Synthon”
Kazuaki Ishihara, Hisashi Yamamoto
Kagaku **1996**, *51*, 56-57.

(7) “Dr. E. J. Corey”
Kazuaki Ishihara
Kagaku **1996**, *51*, 608-610.
(8) “Mukaiyama aldol reaction”
Kazuaki Ishihara
J. Synth. Org. Chem., Jpn. **1998**, *56*(1), 90.
(9) “*N*-トリメチルイミンと水から生じる「高活性イミン」とは？”
Kazuaki Ishihara
Kagaku **1999**, *54*(7), 64–65.
(10) “回収・再利用が容易な脱水縮合触媒”
石原一彰
GSCN News Letter **2004**, (11), 3.
(11) “有機反応の立体的な制御とともに新たな化合物をデザインする”
石原一彰
HARIMA Quarterly **2005**, No. 82, 4–6.
(12) 工学研究科の傑出した研究成果11 “酵素を凌駕する小分子グリーン触媒の精密設計”
石原一彰
Press E（名古屋大学工学研究科ニュース） **2005**, No. 17, 19.
(13) “酵素を凌駕する人工小分子触媒の設計”
石原一彰
学術月報 **2005**, Vol. 58, No. 5, 354–356.
(14) “第２章　フルオラスケミストリーの基礎”
John A. Gladysz（翻訳：坂倉　彰，石原一彰）
フルオラスケミストリー，監修：大寺純蔵，シーエムシー出版, 2005, pp. 161–169.
(15) “研究室紹介―北から南から–”
石原一彰，坂倉　彰，波多野　学
Organometallic News **2005**, No. 4, 137–138.
(16) “疎水効果”
石原一彰
有機合成化学協会誌 **2006**, *64*(6), 688.
(17) “読書のススメ”
石原一彰
化学 **2006**, *61*, No. 9, 48.
(18) 知の先端 “有機合成化学の壁に挑む：逐次合成法から連続合成法へのパラダイムシフト”
石原一彰
*名大トピックス***2007**, No. 167, 14–15.
(19) [研究紹介] 有機反応を自在に操るための、酸・塩基複合化学を基盤とする触媒設計戦略　～第3級アルコールの選択的合成を目指して～
石原一彰、波多野　学
Press E（名古屋大学工学研究科ニュース） **2007**, No. 22, 14.
(20) 研究物語 “Simple is best”で掴んだ思わぬ大発見　－　無塩基・無溶媒条件でのDMAP触媒エステル合成法
坂倉　彰、石原一彰
化学 **2008**, *63*, No. 2, 18–22.
(21) “有機反応を制御する高機能触媒の開発”
石原一彰
CTLO Today **2008**, No. 8, 6.
(22) 十字路 “6員環協奏機構”
石原一彰
有機合成化学協会 **2008**, *66*(6), 631.
(23) “3.1.1 ハメットの酸度関数H_0, H_-の定義、3.1.2 ブレンステッド則、3.1.3 ハメット則, タフト則など、3.1.4 典型的酸塩基触媒反応と反応速度式”
石原一彰

触媒便覧 **2008**, 触媒学会編, 講談社サイエンティフィク, pp 27–33.

(24) “1-[Bis(trifluoromethanesulfonyl)methyl]-2,3,5,6-pentafluorobenzene”

Aiko Hasegawa, Kazuaki Ishihara

In *Encyclopedia of Reagents for Organic Synthesis*, Second Edition, John Wiely & Sons Ltd.: West Sussex, United Kingdom, 2009, Vol. 2, pp. 1278–1281.

(25) “有機分子触媒化学の躍進”

石原一彰

別冊化学「化学のブレークスルー　【有機化学編】　革新論文から見たこの10年の進歩と未来」

化学 **2009**, *64*, No. 3, pp. 18–21.

(26) “ヨウ素でエコ触媒”

石原一彰

環境報告書 **2009**（名古屋大学）, p. 52.

(27) “1,1′-(1,2-Phenylene)bis(1,1-diphenyl)phosphine oxide”

Manabu Hatano, Kazuaki Ishihara

In *Encyclopedia of Reagents for Organic Synthesis,* Copyright © 2009 John Wiley & Sons, Ltd, DOI: 10.1002/047084289X.rn01099, Article Online Posting Date: September 15, 2009

(28) “2-Iodobenzenesulfonic acid”

Muhammet Uyanik, Kazuaki Ishihara

In *Encyclopedia of Reagents for Organic Synthesis,* Copyright © 2010 John Wiley & Sons, Ltd, DOI: 10.1002/047084289X.rn01214, Article Online Posting Date: 15 OCT, 2010.

(29) “3.2 [4+2]-Cycloaddition Reactions”

Akira Sakakura, Kazuaki Ishihara

In *Stereoselective Synthesis 3: Stereoselective Pericyclic Reactions, Cross Coupling, C–H and C–X Activation*, P. A. Evans Volume Ed., pp. 67–124; Georg Thieme Verlag KG, Stuttgart, 2011.

(30) “1,1’-Binaphthyl-2,2’-disulfonic acid”

Manabu Hatano and Kazuaki Ishihara

In *Encyclopedia of Reagents for Organic Synthesis*, Copyright © 2011 John Wiley & Sons, Ltd, DOI: 10.1002/047084289X.rn01248, Published Online: 15 MAR, 2011.

(31) *Science of Synthesis　Knowledge Updates 2010/3*, K. Ishihara (Vo. 7), D. J. Procter (Vol. 29), E. Schaumann (Vol. 11) Volume Eds.; Georg Thieme Verlag KG, Stuttgart, 2011.

(32) “亜ヨウ素酸（あるいは次亜ヨウ素酸）第四級アンモニウム塩を触媒とするエナンチオ選択的酸化的エーテル環化反応”

石原一彰

サイエンス誌に載った日本人研究者（Japanese Scientists in Sicence 2010） **2011**, p. 36.

(33) *Science of Synthesis　Knowledge Updates 2010/4*, J. M. Bode (Vol. 21), E. M. Carreira (Vol. 20), K. Ishihara (Vo. 7), J. J. Li (Vol. 16), I. Marek (Vol. 2), M. Oestreich (Vol. 4), E. Schaumann (Vols. 27 and 40), M. Yus (Vol. 8) Volume Eds.; Georg Thieme Verlag KG, Stuttgart, 2011.

(34) “自分たちの力を信じよう～化学者の立場から”（http://www.wakuwaku-catch.jp/ouen_pj/message/1026.html）

石原一彰

「今こそ、学問の話をしよう」、わくわくキャッチ！「東日本大震災」復興と学び応援プロジェクト、河合塾（http://www.wakuwaku-catch.jp/ouen_pj/index.html）、2011年6月1日

(35) *Science of Synthesis　Knowledge Updates 2011/1*, E. M. Carreira (Vol. 12), J. Drabowicz (Vol. 39), K. Ishihara (Vol. 7), J. J. Li (Vol. 16), E. J. Thomas (Vol. 15) Volume Eds.; Georg Thieme Verlag KG, Stuttgart, 2011. (July 13, 2011)

(35) “有機分子触媒化学の躍進”

石原一彰

化学のブレイクスルー　革新論文から見たこの10年の進歩と未来 pp. 26–29, 化学同人編集部編、化学同人, 2011.

(36) *Science of Synthesis　Knowledge Updates 2011/4*, D. G. Hall (Vol. 6), K. Ishihara (Vo. 7), J. J. Li (Vol. 16), I. Marek (Vol. 2), M. North (Vol. 19), E. Schaumann (Vol. 27), S. M. WEINREB (Vol. 17), M. Yus (Vol. 8) Volume Eds.; Georg Thieme Verlag KG, Stuttgart, 2011.

(37) *Profile of Kazuaki Ishihara*
Angew. Chem. Int. Ed. **2012**, on web, DOI: 10.1002/anie.201200570 (March 12, 2012).

新聞報道、Web
(1) 化学工業日報（2000年11月10日、1面）
記事の見出し「ルイス酸触媒でエステル合成　副生成物なく収率100%」
(2) 化学工業日報（2000年11月10日）
記事の見出し「“日本発”のリーデフィン技術　環境負荷極小化への革新」
(3) 中日新聞（朝刊、2000年11月10日）
記事の見出し「エステル化反応新触媒で効率化」
(4) 日経産業新聞（2000年11月10日）
記事の見出し「エステル　短時間で効率合成　名大　ハフニウム触媒使う」
(5) 日刊工業新聞（2000年11月10日）
記事の見出し「エステル100%収率で合成　名大　ハフニウム塩の触媒で」
(6) 毎日新聞（2000年11月11日）
記事の見出し「ポリエステル合成効率的触媒を開発　名大グループ」
(7) 化学工業日報（2000年11月13日）
記事の見出し「ルイス酸触媒　自在にデザイン　多彩な可能性に期待」
(8) Chemistry & Engineering News (2000年11月13日)
記事の見出し「Science Roundup」
(9) 日刊工業新聞（2001年8月２日）
「反応後、廃棄物は水だけ　エステル合成　環境調和型触媒に期待　名大と関西学院大」
(10) 化学工業日報（2004年3月29日、5面）
記事の見出し「エステル縮合効率化　イオン性液体用い効率化」
(11) 日経産業新聞（2005年2月4日）
記事の見出し「ビタミンE　有機系触媒で効率合成　再利用可能に」
(12) 日刊工業新聞（2005年3月24日、31面）
記事の見出し「新エステル合成技術　脱水不要、収率95%　　名大　触媒にアンモニウム塩」
(13) 日刊工業新聞（2005年7月21日、34面）
記事の見出し「ナイロン原料のラクタム　有機化合物を触媒に合成　硫酸用いず収率ほぼ100%」
(14) 朝日新聞（夕刊、2007年1月19日、8面）
記事の見出し「化粧品原材料効率よく合成　名大院教授ら開発」
(15) 日刊工業新聞（2007年1月19日、24面）
記事の見出し「リン酸モノエステル　環境に優しく高効率　名大が合成技術開発」
(16) 朝日新聞（2007年2月22日、14面）
記事の見出し「生体内「ドミノ」反応を再現　名大、人工酵素を利用　薬の大量生産に期待」
(17) 中日新聞（2007年2月22日、3面）
記事の見出し「複雑な化合物効率よく合成　名大チーム開発　環境に優しく大量生産可能」
(18) 日刊工業新聞（2007年2月22日、20面）
記事の見出し「ハロゲン含む有機化合物　名大が効率合成技術」
(19) 日経産業新聞（2007年2月22日、10面）
記事の見出し「医薬候補物質　1工程で効率合成　名大、人工酵素を独自開発」
(20) 中日新聞（2007年2月27日、13面）
記事の見出し「環境に優しい化学を研究」
(21) *Chemistry & Engineering News* (2007年2月26日)
記事の見出し「Halogen-induced cyclization　Synthesis:　Long-sought enantioselective reaction leads to halogenated steroidal compounds」
(22) 日経産業新聞（2007年4月12日、17面）
記事の見出し「2007年度技術トレンド調査（第1回）　名古屋大学の石原一彰教授らが開発した医薬品候補物質の効率的合成法は6位」
(23) *Chemistry & Industry*, Issue 9 (7th May, 2007)
Features:　Reflective work (by Cath O'Driscoll)
(24) *Synform* (**2007** (02), A19–20)
"Polyprenoids from an Enantioselective Halocyclization Induced by Nucleophilic Phosphoramidites"
Nature **2007**, *455*, 900–903の研究業績紹介
(25) 化学工業日報（2007年10月2日、2面）

記事の見出し「溶媒使わずエステル縮合　DMAP触媒で効率合成　実用性高く再利用可能」

(26) *Synfacts* (**2007** (10), 1094)
"Iminium catalytic [2+2] Cycloaddition"
J. Am. Chem. Soc. **2007**, *129*, 8930–8931の研究業績紹介

(27) 日刊工業新聞（2007年10月25日、3面）
記事の見出し「若手研究者を育成　日本IBM科学賞」

(28) 日経産業新聞（2007年10月25日、9面）
記事の見出し「日本IBM科学賞　受賞者5人決定」

(29) 産経新聞(2007年11月5日、)
記事の見出し「日本IBM科学賞　４分野の受賞者決定」

(30) *Synfacts* (**2008** (8), 832)
"Copper-catalyzed enantioselective [4+2] and [2+2] cycloadditions"
J. Am. Chem. Soc. **2008**, *130*, 7532–7533の研究業績紹介

(31) *Synfacts* (**2008** (8), 880)
"α-(*N*,*N*-Diacylamino)acroleins in asymmetric Diels–Alder reactions"
Org. Lett. **2008**, *10*, 2893–2896の研究業績紹介

(32) Organic Chemistry Highlights "Stereocontrolled Carbocyclic Construction:　The Trauner Synthesis of the Shimalactones" *Organic Chemistry Portal* (by Douglass F. Taber, Univ. of Delaware, December 22, 2008)
"Enantioselective [2+2] cycloaddition of unsaturated alkenes with α-acyloxyacroleins catalyzed by chiral organoammonium salts"
J. Am. Chem. Soc. **2007**, *129*, 8930–8931の研究業績紹介

(33) 中日新聞（2009年1月8日、25面）
記事の見出し「ヨウ素でエコ触媒　化粧品・医薬品の製造 安価安全に」

(34) *Synfacts* (**2009** (2), 207)
"Pyridinium 1,1'-binaphthyl-2,2'-disulfonates as highly effective chiral Brønsted acid–base combined salt catalysts for enantioselective Mannich-type reaction"
J. Am. Chem. Soc. **2008**, *130*, 16858–16860の研究業績紹介

(35) *Synfacts* (**2009** (2), 127)
"Convergent total syntheses of fluvibactin and vibriobactin using molybdenum(VI) oxide-catalyzed dehydrative cyclization as a key step"
Chem. Commun. **2008**, (30), 3561–3563の研究業績紹介

(36) *現代化学* (**2009**, (3), 16–19)
"超原子価ヨウ素化合物　ペルヨージナン試薬のルネッサンス" 佐藤健太郎 著
J. Am. Chem. Soc. **2009**, *131*(1), 251–262の研究業績紹介

(37) 化学工業日報（2009年4月3日、2面）
記事の見出し「日産化学　高活性酸化触媒を拡充　名大から技術導入」

(38) 中日新聞（2010年2月18日、朝刊3面）
記事の見出し「ヨウ素を触媒 不斉合成　名大教授らが成功　金属を使わず環境調和」

(39) 読売新聞（2010年2月18日、朝刊32面）
記事の見出し「薬合成をより安全に　名大教授らが新触媒」

(40) 毎日新聞（2010年2月18日、朝刊22面）
記事の見出し「ヨウ素触媒で「不斉合成」　名大大学院グループ　薬品開発に期待」

(41) 日刊工業新聞（2010年2月18日、19面）
記事の見出し「名大　化合物生成を効率化　医薬品向け　不斉触媒の性能向上」

(42) 化学工業日報（2010年2月18日、1面）
記事の見出し「ヨウ素系不斉触媒で高効率合成　名大、収率90％以上達成」

(43) 時事通信社（2010年2月18日）（Yahoo Headline ニュース）
記事の見出し「ヨウ素から不斉合成触媒を開発＝次世代抗生物質の生成に期待―名古屋大」

(44) 共同通信社（2010年2月18日）
記事の見出し「ヨウ素使い安全な医薬品　名大、不斉合成で新手法」

(45) *Synfacts* (**2010** (3), 308)
"Rational design of highly effective asymmetric Diels–Alder catalysts bearing 4,4'-sulfonamidomethyl groups"
J. Am. Chem. Soc. **2009**, *131*(49), 17762–17764の研究業績紹介

(46) *Synfacts* (**2010** (4), 445)

"Chiral lithium(I)-binaphtholate salts for the enantioselective direct Mannich-type reaction with a change of *syn*/*anti* and absolute stereochemistry"
J. Am. Chem. Soc. **2010**, *132*(1), 56–57の研究業績紹介

(47) 小学館 知識探索サイト「ジャパンナレッジ」(http://www.japanknowledge.com/top/freedisplay)
今日の人物："旬"な人を紹介！ 「石原一彰」の人物紹介記事が掲載された。

(48) 中日新聞（2010年4月23日、朝刊3面）
記事の見出し「カルシウム使い不斉合成促進 触媒の大量生産に道 名大大学院教授ら開発」

(49) 中日新聞（2010年6月11日、朝刊3面）
記事の見出し「環境い優しい不斉合成 医薬品への応用期待 名大大学院グループ成功」

(50) 毎日新聞（2010年6月11日、朝刊22面）
記事の見出し「金属使わず不斉合成成功 名大の研究チーム 副生成物は水だけに」

(51) 朝日新聞（2010年6月11日、朝刊30面）
記事の見出し「環境に優しい合成法を開発 名大、新薬に活用も」

(52) 読売新聞（2010年6月11日、朝刊28面）
記事の見出し「薬の原料エコ生成 重金属使わずヨウ素で触媒 名大教授ら」

(53) 日刊工業新聞（2010年6月11日、20面）
記事の見出し「目的の化合物、高率で生成 名大が不斉触媒 余分な副生成物作らず」

(54) 化学工業日報（2010年6月11日、4面）
記事の見出し「光学活性物質合成向け 無機ヨウ素触媒開発 名大 不斉収率さらに向上」

(55) *Chemistry World* (Royal Society of Chemistry, 10 June, 2010)
Title: A green and salty chiral catalyst

(56) *Synfacts* (**2010** (5), 602–602)
"Kita's oxidative spirolactonization catalyzed by a hypervalent iodine(III) species"
Am. Chem Int. Ed. **2010**, *49*(12), 2175–2177の研究業績紹介

(57) *Chemical & Engineering News* June 14, 2010, p.11
記事の見出し"Iodine catalysis goes green. Synthetic chemistry: oxidative cyclixation route chiral drug scaffolds is metal-free"

(58) 日経産業新聞（2010 年6月15日、11面）
記事の見出し「不斉触媒 環境負荷少ない材料 名大、ヨウ素を主原料に」

(59) *Nature* (**2010**, *465*(7300), 849, published on 17 June 2010)
記事の見出し"Chemistry Iodine improvement"

(60) *Chemistry & Industry*, Issue 12, p. 12 (12th June, 2010)
News: New tools for green chemistry (by Chris Adriaanse)

(61) *Synfacts* (**2010** (7), 834–834)
"Acid or salt? New insights into 'phosphoric acid catalysis'"
Am. Chem Int. Ed. **2010**, *49*(22), 3823–3826の研究業績紹介

(62) *Synfacts* (**2010** (7), 819–819)
"Zinc(II)-catalyzed Grignard additions to ketones with RMgBr and RMgI'"
Chem. Commun. **2010**, *46*(15), 2674–2676の研究業績紹介

(63) 科学新聞（2010年6月18日、4面）
見出し「キラルアンモニウムヨウ素酸塩触媒による不斉合成で 名古屋大学グループ、最高性能達成」

(64) 化学工業日報（2010年7月26日、33面）
記事の見出し「夏季特集 不斉合成に新たな道、名古屋大学大学院・石原一彰教授 安全・効率的ヨウ素系触媒」

(65) *Synfacts* (**2010** (9), 1000–1000)
"Catalytic Hypervalent Iodine Spirolactonization Using *m*-CPBA as Co-Oxidant"
Tetrahderon **2010**, *66*(15), 5841–5851の研究業績紹介

(66) *Synform* (**2010** (9), A79–A83)
"Quarternary Ammonium (hypo)iodite Catalysis for Enantioselective Oxidative Cycloetherification"
Science **2010**, *328*, 1376–1379の研究業績紹介

(67) *Synfacts* (**2010** (11), 1268–1268)

"Magnesium(II)-binaphtholate as a practical chiral catalyst for the enantioselective direct Mannich-type reaction with malonates"
Org. Lett. **2010**, *12*(15), 3502–3505の研究業績紹介

(68) Nagoya University Research (http://www.nu-research.com/research/6168, Published online 25 November, 2010)
"Green Catalysis: Iodine answers" Iodine compounds that contain extra electrons can replace hazardous metal catalysts for the synthesis of pharmaceuticals
Science **2010**, *328*, 1376–1379の研究業績紹介

(69) *有機合成化学協会誌* (**2010**, *68*(12), 1329–1329).
"A concise synthesis of (S)-(+)-ginnol based on catalytic enantioselective addition of commercially unavailable di(*n*-alkyl)zinc to aldehydes and ketones"
Synlett **2010**, (13), 2024–2028 (***Cluster: Green Chemistry***)の研究業績紹介

(70) Redlich, M. *Aldrich ChemFiles* **2010**, *10*(2), 17-18.
合成用試薬 ケトンの向山アルドール反応のための効率的なLewis塩基
Bis[1,2[(diphenylphosphine oxide)benzene] sodium phenoxide (商品番号708836)の紹介

(71) *Synfacts* (**2011** (1), 0059–0059)
"Enantioselective Cycloaddition of Nitrones with Propioloyl- and Acrloylpyrazoles"
J. Am. Chem. Soc. **2010**, *132*(44), 15550–15552の研究業績紹介

(72) *有機合成化学協会誌* (**2011**, *69*(1), 86–86)
"Enantioselective Kita oxidative spirolactonization catalyzed by in situ generated chiral hypervalent iodine(III) species"
Angew. Chem. Int. Ed. **2010**, *49*(12), 2175–2177 (***Hot paper, Cover picture***)の研究業績紹介

(73) *Speciality Chemicals Magazine* (Ozamu Yamada, **2011**, 18–19)
"Pre-MIBSK for industrial-scale alcohol oxidation"
日産化学工業によるIBS酸化技術の紹介

(74) *化学工業日報*（2011年4月7日3面）
記事の見出し「日産化学　新規酸化触媒　治験薬向け相次ぎ採用　大学から導入の高活性２種　技術普及に弾み」
日産化学工業が導入したIBS酸化技術の実用化に関するニュース

(75) *Synfacts* (**2011** (4), 0444–0444)
"Brønsted base-assisted boronic acid catalysis for the dehydrative intramolecular condensation of dicarboxylic acids"
Org. Lett. **2011**, *13*(5), 892–895の研究業績紹介

(76) *中日新聞* (2011年6月9日朝刊26面)
記事の見出し「中高生向けに大学教授ら　どう生きるか震災後の日本」

(77) *Organic Chemistry Portal* **(July 11, 2011)**
Enantioselective Preparation of Alcohols and Amines: The Lam Synthesis of (+)-Tanikolide
Org. Lett. **2010**, *12*, 3502の研究業績紹介

(78) *Synfacts* (**2011** (8), 0899–0899)
"Chiral Lewis base assisted Brønsted acids"
Org. Lett. **2011**, *13*(12), 3130–3133の研究業績紹介

(79) *日刊工業新聞* (2011年9月16日23面)
記事の見出し「ポリマー樹脂などの原料、低コストで安全に合成、金属触媒や効果な共酸化剤不要」

(80) *化学工業日報* (2011年10月28日1面、web: http://www.kagakukogyonippo.com/headline/2011/10/28-4138.html)
記事の見出し「名大石原教授 「テーラーメード」触媒開発」（web）
記事の見出し「不斉触媒、選択性高く　設計した小分子混ぜ「テーラーメード」化　名大、酵素に似た機能発現」（1面）
Angew. Chem. Int. Ed. **2011**, *50*(51), 12189–12192の研究業績紹介

(81) *日刊工業新聞* (2011年11月3日13面)
記事の見出し「特定の反応選択可能な触媒開発　名大」
Angew. Chem. Int. Ed. **2011**, *50*(51), 12189–12192の研究業績紹介

(82) *日経産業新聞* (2011年11月11日10面)
記事の見出し「生体内の酵素に似た触媒　生成物ごとに作り分け　名大など」
Angew. Chem. Int. Ed. **2011**, *50*(51), 12189–12192の研究業績紹介

(83) *中日新聞* (2011年12月15日29面)
記事の見出し「水中で働く新触媒　名大院教授ら　酵素ヒントに開発」
Org. Lett. **2012**, *14*(1), 30–33の研究業績紹介

(84) *現代化学* (2012年2月号, No. 491, p. 14)
記事の見出し「二つの立体化学を同時に制御できる触媒」
Angew. Chem. Int. Ed. **2011**, *50*(51), 12189–12192の研究業績紹介

(85) *ファルマシア*(2012年3月号, No. 3, p. 237)
記事の見出し「ヨウ素を金属代替元素とする触媒的酸化反応へのアプローチ」
Angew. Chem. Int. Ed. **2011**, *50*(23), 5331–5334の研究業績紹介

テレビ放送

(1) NHK総合テレビ(2007年2月22日、初回放送：午前6時24分頃、再放送：午前6時53分頃)
Nature **2007**, *455*, 900–903の研究業績紹介

実用化

(1) アミド脱水縮合触媒3,4,5-$F_3C_6H_2B(OH)_2$を東京化成工業より販売開始（2001年）
(2) デザイン型超強酸$C_6F_5CHTf_2$を東京化成工業より販売開始(2002年)
(3) 固体担持型超強酸polystyrene-$C_6F_4CHTf_2$を東京化成工業より販売開始(2002年)
(4) 不斉アシル化触媒を東京化成工業より販売開始(2005年)
(5) カチオン性ボロン酸触媒4-Methyl-4-pyridinineboronic acid iodideを和光純薬工業より販売開始(商品番号130-15181, 132-15185, 2006年)
(6) 固体担持型カチオン性ボロン酸触媒Polystyrene-bound *N*-methyl-4-pyridinineboronic acid chlorideを和光純薬工業より販売開始(165-22241, 161-22243, 2006年)
(7) エステル脱水縮合触媒ジメシチルアンモニウムペンタフルオロベンゼンスルホナートを東京化成工業より販売開始(2007年1月)
(8) エチルマグネシウム塩化物（塩化亜鉛で活性化）を東京化成工業より販売開始(2008年4月)
(9) 2-ヨード-5-メチルベンゼンスルホン酸カリウムを純正化学株式会社より販売開始(2009年3月)
(10) 2-ヨード-5-メチルベンゼンスルホン酸カリウムをAldrichより販売開始(2010年4月)
(11) Bis[1,2[(diphenylphosphine oxide)benzene] sodium phenoxide (商品番号708836)がAldrichより販売開始(2010年10月)
(12) キラル超原子価ヨウ素(2*R*,2*R*')-2,2'-(2-Iodo-1,3-phenylene)bis(oxy)bis(*N*-mesitylpropanamine) を和光純薬工業より販売開始(商品番号095-06051, 091-06053, 2010年12月22日)