

Accounts and Reviews BCSJ 100th Anniversary Collection

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Keywords: antibiotics | biosynthesis | screening
Revitalizing microbial secondary metabolites in drug discovery: current challenges and emerging solutions

Hirofumi Osada*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag062 doi:10.1093/bulcsj/uoag062

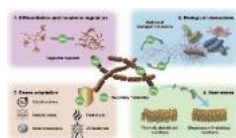


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Keywords: actinomycete | heat shock metabolites | secondary metabolites
Secondary metabolites of actinomycetes: chemical strategies for survival and adaptation

Shun Saito*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag075 doi:10.1093/bulcsj/uoag075



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Keywords: benzothiazole | fluorophores | photophysical principles
Hydroxythiophene-conjugated benzothiazole derivatives: photophysical design and applications in imaging and optoelectronic materials and devices

Kang Min Lee, Kang Ho Chu, Kyeong-Im Hong, and Woo-Dong Jang*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag065 doi:10.1093/bulcsj/uoag065

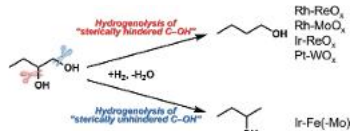


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Keywords: biomass | heterogeneous catalysis | hydrodeoxygenation
Selective hydrodeoxygenation for the synthesis of oxygen-containing chemicals: fossil-based substrates to biomass-based ones

Keiichi Tomishige,* Mizuho Yabushita, and Yoshinori Nakagawa
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag063 doi:10.1093/bulcsj/uoag063



Accounts and Reviews BCSJ 100th Anniversary Collection

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Keywords: biosynthesis | pathway reconstitution | terpenoid
Total biosynthesis of terpenoids and meroterpenoids

Hideaki Oikawa*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag047 doi:10.1093/bulcsj/uoag047



BCSJ Award Article Free Access

Keywords: benzoxepines | divergent synthesis | indanes
Divergent synthetic route to exo-methylene-type indanes and benzoxepines: dramatic effect of acid catalyst selection

Hiroyuki Okawa, Masahiro Anada, Shunsuke Sueki, Kosho Makino, Tomoko Kawasaki-Takasuka, and Keiji Mori*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag066 doi:10.1093/bulcsj/uoag066



Keywords: electrocatalysis | mesoporous metal-organic framework | nitrate reduction reaction

Iron-modified mesoporous MOFs for enhanced electrochemical nitrate-to-ammonia conversion

Xiangyang Liu, Yongqi Yin, Yusuke Asakura, Yingji Zhao,* and Yusuke Yamauchi*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag080 doi:10.1093/bulcsj/uoag080

Keywords: crystal structure | dihydrohexaazatrinaphthylene | substituent effect
Reaction mechanism of the one-step synthesis, optical absorption in the solid state, and substituent effect for dihydrohexaazatrinaphthylene

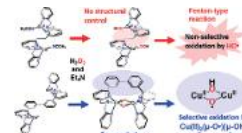
Takahiro Oshima, Akiyuki Nakano, Kentaro Ikeda, Yuki Tsukada, Minoru Mitsumi, Kan Wakamatsu,* Kiyoshi Fujisawa,* and Hideyuki Higashimura*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag069 doi:10.1093/bulcsj/uoag069

Selected Paper

Keywords: Cu(II)₂(μ-OH)₂ core | H₂O₂ activation | N₆-dinucleating ligands

A key Cu(II)₂(μ-OH)₂ core structure pre-organized by N₆-dinucleating ligand for catalytic alkane oxidation with H₂O₂

Kyosuke Fujikawa, Seina Shinomiya, Hiroaki Kitagishi, and Masahito Kodera*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag079 doi:10.1093/bulcsj/uoag079



Keywords: hydrophobic deep eutectic solvents | indium | separation
A P204/guaiacol-based hydrophobic deep eutectic solvent modulating proton exchange for highly selective In(III)/Fe(III) separation

Na Wang,* Huanyu Liu, Jian Lan, Xiuli Chen, and Hongsheng Lu
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag068 doi:10.1093/bulcsj/uoag068

Keywords: all-inorganic semi-transparent PSCs | atomic layer deposition | surface passivation

ALD NiO_x hole transport layers for semi-transparent perovskite solar cells with average visible transmittance exceeding 50%

Qian Wang, Mingming Li, Jiawei Song, Zhengyang Li, Ankang Shu, Shangwei Huang, Jiahao Cheng, Xiaopei Zhang, Wenjian Shen, Cong Geng, Rui Chen, Guijie Liang, Jun Yao, Ying Liang, Wangnan Li,* Yong Peng,* Yi-Bing Cheng, and Bin Li*
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag072 doi:10.1093/bulcsj/uoag072

Keywords: density functional theory | electrocatalyst | oxygen reduction reaction

Computational investigation of FeCuN co-doped graphene as a bimetallic electrocatalyst for oxygen reduction reaction

Jewel Hossen* and Naoki Nakatani
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag071 doi:10.1093/bulcsj/uoag071

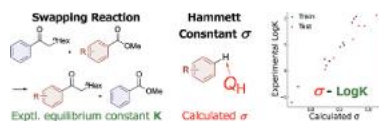
Selected Paper **Open Access**

Keywords: Hammett constant | quantum chemistry | swapping reaction

Predicting substrate scope in aromatic and heteroaromatic swapping using quantum chemical calculations via linear free-energy relationship

Mikito Fujinami, Ryotaro Shirai, Hikaru Nakahara, Junichiro Yamaguchi,* and Hiromi Nakai*

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag078 doi:10.1093/bulcsj/uoag078



Open Access

Keywords: boranil | boron | demethylative borylation

Synthesis of boranils by iodide-mediated demethylative borylation and their properties

Koichi Mitsudo,* Ryo Magata, Eisuke Sato, Tomoya Nakamura, Atsushi Wakamiya, and Seiji Suga*

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag070 doi:10.1093/bulcsj/uoag070

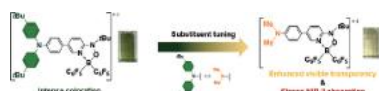
Selected Paper

Keywords: aminoxyl radicals | intramolecular boron-oxygen coordination | near-infrared dyes

Near-infrared-absorbing aminoxyl radical-boron complexes with reduced visible coloration

Takuma Kuroda, Kazuya Kubo, Toshiyuki Oshiki, Yuta Nishina, Yoshiyuki Mizuhata, Ryo Inoue,* and Tomohiro Agou*

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag076 doi:10.1093/bulcsj/uoag076



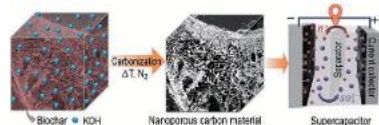
Selected Paper

Keywords: biomass carbon materials | KOH activation | supercapacitors

Nanoarchitectonics of hierarchically porous carbon materials from *Areca catechu* nut for electrical double-layer capacitor applications

Sabina Shahi, Rabindra Nath Acharyya, Aabha Puri, Sarita Manandhar, Gokulnath Subramaniam, Marappan Sathish, Katsuhiko Ariga, and Lok Kumar Shrestha*

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag073 doi:10.1093/bulcsj/uoag073



Chemistry Letters

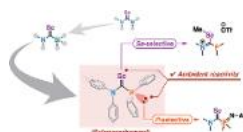
Highlight Review **Open Access**

Keywords: phosphorus | selenium | selenoamides

Selenocarbamoyl compounds with main-group substituents

Ryosuke Masuda,* Tamaki Yano, and Hiroyuki Kusama

Chem. Lett. 2026, 55, No. 6, upag110 doi:10.1093/chemle/upag110



Keywords: conifer-derived diterpenoid | methylphenanthrene | thermal maturation

Formation of 1-methylphenanthrene from diterpenoid-derived precursors during early thermal alteration of conifer-derived organic matter

Kenta Asahina,* Hideto Nakamura, Takeshi Nakajima, Yuichiro Suzuki, Satoshi Furota, and Miyuki Kobayashi

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag074 doi:10.1093/bulcsj/uoag074

Keywords: packing coefficient | polyhedral oligomeric silsesquioxanes (POSS) | refractive index

Perfluoroalkylated polyhedral oligomeric silsesquioxane fillers with molecular weight distributions for low refractive index fluorinated polymer composite materials

Tatsuaki Kunimitsu, Masayuki Gon, and Kazuo Tanaka*

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag067 doi:10.1093/bulcsj/uoag067

Keywords: coal | free and bound alkanes | source rock

Molecular characteristics of free and bound *n*-alkanes in paleogene and cretaceous coals: implications for hydrocarbon generation

Kenta Asahina,* Takeshi Nakajima, Hideyoshi Yoshioka, Yuichiro Suzuki, and Miyuki Kobayashi

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag064 doi:10.1093/bulcsj/uoag064

Open Access

Keywords: acyl steryl glucosides | C-type lectin receptor | Mincle
Synthesis of plant-derived 6-O-acylated steryl β -glucosides (β ASGs) and their derivatives: evaluation of Mincle-mediated signaling activity

Kenji Yoshida, Takanori Matsumaru,* Shingo Mochizuki, Sho Yamasaki, and Yukari Fujimoto*

Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag057 doi:10.1093/bulcsj/uoag057

Keywords: acetylide | addition reaction | Grignard reagent
Generation of functionalized acetylides for C-C bond formation

Koshiro Kudo, Riku Yatabe, Hyuga Okumura, Nurcahyo Iman Prakoso, Tatsuya Morozumi, and Taiki Umezawa*

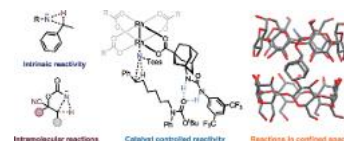
Bull. Chem. Soc. Jpn. 2026, 99, No. 6, uoag077 doi:10.1093/bulcsj/uoag077

Highlight Review **Open Access**

Keywords: C-H aminations | metal nitrenoids | nitrene insertions
On the origin of selectivity in nitrene C-H insertion reactions

Radim Hrdina*

Chem. Lett. 2026, 55, No. 6, upag106 doi:10.1093/chemle/upag106



Highlight Review Free Access

Keywords: nucleophilic fluorinating reagent | potassium fluoride
Synthesis of novel nucleophilic fluorinating reagents derived from KF

Haruka Homma and Toshiki Tajima*
Chem. Lett. 2026, 55, No. 6, upag105

doi:10.1093/chemle/upag105



Highlight Review Free Access

Keywords: andrographis paniculata | andrographolide | cytotoxic activity
Unlocking the cytotoxic activity of andrographolide through structural modifications

Patamawadee Silalai and Rungnapha Saeng*
Chem. Lett. 2026, 55, No. 6, upag096

doi:10.1093/chemle/upag096

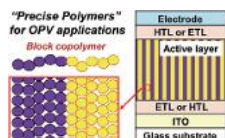


Highlight Review Open Access

Keywords: block copolymer | organic photovoltaics | π -conjugated polymer
Recent progress in semiconducting block copolymers suited for organic photovoltaics

Tomoya Higashihara,* Teruma Mikata, He Sun, and Chu-Chen Chueh
Chem. Lett. 2026, 55, No. 6, upag104

doi:10.1093/chemle/upag104



Keywords: chiral memory | self-assembly | supramolecular nanotubes
Chiral memory of additive-induced handedness in supramolecular nanotubes from achiral monomers

Toru Yakeishi, Hiroki Hanayama, Martin J. Hollamby, Dirk Honecker, Sougata Datta, and Shiki Yagai*
Chem. Lett. 2026, 55, No. 6, upag113

doi:10.1093/chemle/upag113

Open Access

Keywords: aromaticity | donor-acceptor interaction | small-bandgap semiconducting polymer
Thiophene-flanked quinoidal naphthodipyrrolidones for small-bandgap semiconducting oligomers and polymers

Shunnosuke Kurita, Kohsuke Kawabata,* and Kazuo Takimiya*
Chem. Lett. 2026, 55, No. 6, upag112

doi:10.1093/chemle/upag112

Keywords: nickel complex | pyrophosphate | tetranuclear structure
Structure and magnetochemical properties of a pyrophosphate-bridged tetranuclear nickel(II) complex

Yuji Miyazato,* Shin Nakazawa, and Kazuki Sugiura
Chem. Lett. 2026, 55, No. 6, upag068

doi:10.1093/chemle/upag068

Keywords: microporous materials | mononuclear complexes | tin
A supramolecular framework based on a 7-coordinate Sn(II) mononuclear complex

Keisuke Ishikawa, Hirokazu Kobayashi, and Kazuya Otsubo*
Chem. Lett. 2026, 55, No. 6, upag109

doi:10.1093/chemle/upag109

Open Access

Keywords: nickel catalyzed Miyaura borylation | room temperature
Exploring low-cost methods for BEpin borylation of aryl iodides using nickel catalysts

Jiashen Tan, Daven Foster, George Koutsantonis,* Reto Dorta,* and Scott G. Stewart*

Chem. Lett. 2026, 55, No. 6, upag107

doi:10.1093/chemle/upag107

Editor's Choice Open Access

Keywords: building block | cage siloxane | siloxane-based materials
Germanium-substituted silicate cages as precursors of organosilyl-functionalized open-cage siloxanes

Yoko Tsutsui, Taiki Hayashi,* Souki Muramatsu, Takamichi Matsuno, and Atsushi Shimojima*

Chem. Lett. 2026, 55, No. 6, upag102

doi:10.1093/chemle/upag102



Keywords: all-solid-state batteries | mixed catalysts | rechargeable air batteries
Mixed Pt/IrOx catalyst as a stable positive electrode in all-solid-state rechargeable air batteries

Kenji Miyatake,* Kosei Tsuge, Fang Xian, Ahmed Mohamed Ahmed Mahmoud, Vikrant Yadav, Hyeun Kwon, and Satoko Sato
Chem. Lett. 2026, 55, No. 6, upag108

doi:10.1093/chemle/upag108

Open Access

Keywords: palladium catalyst | reductive cross-coupling | zirconocene
Reductive cross-coupling reaction between β -bromostyrenes and alkynes using Cp_2ZrF_2 and a palladium catalyst

Kento Ishida, Kotone Ishizuka, Yohei Ogiwara, and Norio Sakai*
Chem. Lett. 2026, 55, No. 6, upag114

doi:10.1093/chemle/upag114

Keywords: mechanoluminescence | surfactant | water-resistance
Water resistance of mechanoluminescent material particles

Kuniaki Kanamaru*
Chem. Lett. 2026, 55, No. 6, upag093

doi:10.1093/chemle/upag093

Open Access

Keywords: malonic esters | tert-butyl esters | thermal cleavage
Solvent- and catalyst-free direct conversion of malonic esters to carboxylic acids via thermal cleavage of tert-butyl ester and decarboxylation

Shingo Ishikawa,* Yuto Tanaka, Nayu Kodama, Tetsuo Nishimata, Kazuki Miyamoto, and Keigo Fugami
Chem. Lett. 2026, 55, No. 6, upag111

doi:10.1093/chemle/upag111

Keywords: chirality | circular dichroism | circularly polarized luminescence
Chiroptical spectroscopy of mechanically fragile single crystals without sample degradation

Misaki Rikioka, Hatsune Nakayama, Chihiro Kachi-Terajima, and Takunori Harada*
Chem. Lett. 2026, 55, No. 6, upag101

doi:10.1093/chemle/upag101

Keywords: benzylic halides | dehalogenative borylation | sodium dispersion
Dehalogenative borylation of benzylic halides assisted by sodium dispersion

Fumitaka Mihara, Shuichi Ikeda, Kentaro Okano, and Atsunori Mori*
Chem. Lett. 2026, 55, No. 6, upag094

doi:10.1093/chemle/upag094

Open Access

Keywords: crown ether | EGCG | supramolecular assembly
Metal-free supramolecular assembly of azacrown ether derivatives with EGCG for CpG DNA encapsulation

Ken Fujimoto, Naoya Takei, Akihiko Hatano, Manabu Suzuki, and Kenichi Niikura*
Chem. Lett. 2026, 55, No. 6, upag103 doi:10.1093/chemle/upag103

Open Access

Keywords: o-iminoquinone | phenanthroline | redox-active ligand
Synthesis, structure, and reactivity of a phenanthroline-iminoquinone ligand

Hiroto Miyabe, Tomohiro Iwai,* and Jun Terao*
Chem. Lett. 2026, 55, No. 6, upag100 doi:10.1093/chemle/upag100

Keywords: C–O coupling | peroxides | umpolung
Copper-catalyzed electrophilic etherification of arylsilanes and -boranes with acetal-based peroxides

Kyosuke Fujiwara, Shogo Nakamura, and Koji Hirano*
Chem. Lett. 2026, 55, No. 6, upag067 doi:10.1093/chemle/upag067

Keywords: flame retardant | PLA | polyethyleneimine
New oligomeric PEI-based flame retardant for PLA

Ivan Kokhan,* Serhii Sinelnikov, and Sergii Riabov
Chem. Lett. 2026, 55, No. 6, upag095 doi:10.1093/chemle/upag095

Keywords: electrochemical sensor | mesoporous silicon nanowire arrays | triple hydrogen-bonding recognition
High-performance electrode based on polythymine-gold nanoparticle modified mesoporous silicon nanowire arrays for melamine detection

Zhiqian Song, Jiacheng Shen, Mingjia Zheng, Nianxu Sha, Ruohan Guan, Chenggang Geng, Lei Jiang, and Xiaodong Wang*
Chem. Lett. 2026, 55, No. 6, upag090 doi:10.1093/chemle/upag090

Keywords: Co(II) complexes | magnetic relaxation | single-molecule magnets
Crystal-packing-dependent magnetic relaxation in octahedral Co(II) single-molecule magnets

Ayumi Uemura, Yoshihiro Sekine,* Kanta Miyake, and Shinya Hayami*
Chem. Lett. 2026, 55, No. 6, upag089 doi:10.1093/chemle/upag089

Keywords: flower-like structure | iron silicide | water purification
Synthesis of flower-like-structured FeSi₂ and its application to water purification

Takashi Kamegawa* and Tatsuki Minami
Chem. Lett. 2026, 55, No. 6, upag086 doi:10.1093/chemle/upag086

Keywords: magnetic nanoparticles | micro-powder drying | redispersibility
Micro-powder drying enables highly redispersible magnetic nanoparticle powders from aqueous dispersions

Satoshi Seino,* Kota Nishigaki, Taketo Kunugita, and Takashi Nakagawa
Chem. Lett. 2026, 55, No. 6, upag099 doi:10.1093/chemle/upag099

Keywords: cross-coupling reaction | phosphonium ylide | photoredox catalysis
Organophotoredox catalysis in C–C cross-coupling reactions by a phosphonium ylide

Yasunori Toda,* Rintaro Komatsu, and Sota Fuwa
Chem. Lett. 2026, 55, No. 6, upag097 doi:10.1093/chemle/upag097

Keywords: azatriptycene | boron complex | triptycene
2,6- and 2,7-diazatriptycene-based boron complexes: synthesis, optical properties, and crystal structures

Yusuke Hashimoto, Ryo Inoue,* Atsushi Aoki, Kazuya Kubo, Yasuhiro Morisaki,* and Tomohiro Agou*
Chem. Lett. 2026, 55, No. 6, upag098 doi:10.1093/chemle/upag098

Keywords: artificial protein lipidation | extracellular vesicles | microbial transglutaminase
Lipid chain length-dependent anchoring of artificial lipidated proteins enables cell-selective uptake of extracellular vesicles

Nozomu Ogushi, Kazuki Uchida, Yoshirou Kawaguchi, Rie Wakabayashi, Masahiro Goto, and Norihiro Kamiya*
Chem. Lett. 2026, 55, No. 6, upag092 doi:10.1093/chemle/upag092

Keywords: cuneane | rhodium catalyst | ring-opening reaction
Computational insights into Rh-catalyzed ring-opening of cuneane: distinctive roles of alcohol nucleophiles

Hikaru Oshimo, Hiyori Takebe, Kanami Sugiyama, Seiji Matsubara, and Hirofumi Sato*
Chem. Lett. 2026, 55, No. 6, upag091 doi:10.1093/chemle/upag091

Keywords: chromium silicate | site selectivity | sugilite
Selective octahedral accommodation of Cr³⁺ and weak magnetic connectivity in the sugilite analog KNa₂Cr₂Li₃Si₁₂O₃₀

Yuya Haraguchi,* Taishu Aoki, Daisuke Nishio-Hamane, and Hiroko Aruga Katori
Chem. Lett. 2026, 55, No. 6, upag087 doi:10.1093/chemle/upag087

Open Access

Keywords: Al environment | FAU-type zeolite | postsynthetic modification
Effect of fluoride-assisted hydrothermal treatment on Al environment in FAU-type zeolites

Masayoshi Hattori, Taiki Hayashi, Yutaka Yanaba, and Kenta Iyoki*
Chem. Lett. 2026, 55, No. 6, upag083 doi:10.1093/chemle/upag083

Keywords: helicoidal microtrichium | insect wings | protein secondary structures
Protein organization of a single microtrichium in the left and right hindwings of a European hornet via high-resolution microscopic infrared spectroscopy

Hisako Sato,* Kazuhiko Abe, Sayako Inoué, and Akihiko Yamagishi
Chem. Lett. 2026, 55, No. 6, upag084 doi:10.1093/chemle/upag084

Keywords: chemistry | micromotor | synthesis
A minimal-chemistry route to catalase-powered Janus micromotors using amine-functional polystyrene particles

Isao Shitanda,* Yusuke Asano, Nozomi Terai, Tatsuo Aikawa, Yoshinao Hoshi, and Masayuki Itagaki
Chem. Lett. 2026, 55, No. 6, upag082 doi:10.1093/chemle/upag082

Keywords: diastereomers | limonene oxide | solvent-soluble polymers
Solvent-soluble polyesters derived from diastereomeric bio-based bisepoxides

Hisatoyo Morinaga,* Yumeki Nakayama, and Koushi Ogawa
Chem. Lett. 2026, 55, No. 6, upag081 doi:10.1093/chemle/upag081

Keywords: adsorption | amantadine hydrochloride | sodium montmorillonite
Thermal treatment of sodium montmorillonite with tuning performance for the absorption of amantadine hydrochloride

Gongrui Zhou, Jing Shen, and Dengfeng Wu*
Chem. Lett. 2026, 55, No. 6, upag079 doi:10.1093/chemle/upag079