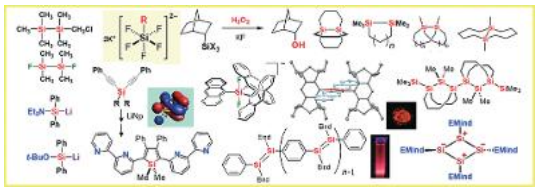
Accounts and Reviews | BCSJ 100th Anniversary Collection | Free Access

Keywords: chemistry | synthesis | measurement

Over half a century with organosilicon chemistry

Kohei Tamao*

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag040 doi:10.1093/bulcsj/uoag040



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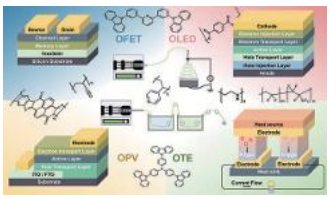
Keywords: organic optoelectronics | organic thermoelectric generators | polymer fibers

Recent advances of electrospun, wet-spun nanofibers, and fiber fabrics for organic optoelectronic and thermoelectric devices

Shin-Hao Shi, Chih-Wei Hsu, Ya-Shuan Wu, Cheng-Liang Liu,* Yan-Cheng Lin,* and Wen-Chang Chen*

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag037 doi:10.1093/bulcsj/uoag037



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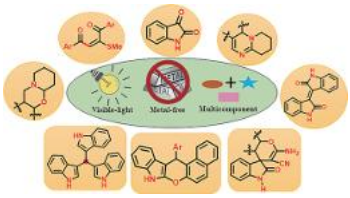
Keywords: metal-free | multicomponent reaction | visible-light-mediated

Illuminating green routes: multi-component, metal-free and visible-light-assisted reactions

Pranjal K. Baruah* and Aditi Boruah

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag033 doi:10.1093/bulcsj/uoag033



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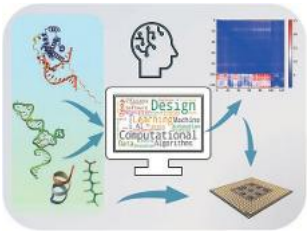
Keywords: AI-guided molecular recognition | recognition elements | small molecule biosensor

Small-molecule biosensing: from bio-inspired recognition elements and sensor devices to AI-guided design

Jin Wang* and Toshihiko Kiwa

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag031 doi:10.1093/bulcsj/uoag031



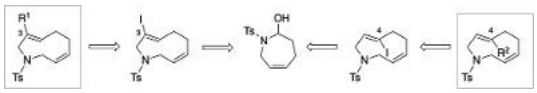
BCSJ Award Article | Free Access

Keywords: dynamic chirality | planar chirality | stereochemical stability

Efficient synthesis of planar chiral diallylic 9-membered amides having a variety of substituents and stereochemical analysis thereof

Kazuhiro Uehara, Masaki Suzuki, Jun-ichi Hayashi, Kazunobu Igawa, Yuuya Kawasaki, and Katsuhiko Tomooka*

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoaf121 doi:10.1093/bulcsj/uoaf121



Keywords: continuous-flow system | machine learning | polymer-supported Pd catalyst

Machine-learning-driven exploration of Suzuki–Miyaura cross-coupling with a polymer-supported Pd in continuous-flow system

Xincheng Zhou, Hikaru Matsumoto, Masanori Nagao, and Yoshiko Miura*

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag038 doi:10.1093/bulcsj/uoag038

Keywords: approximate spin-projection | band calculation | stable organic radicals

A theoretical study of singly occupied molecular bands and their magnetic character in one-dimensional trioxotriangulene chains

Yukichika Kitano, Kohei Tada,* Rikuya Hirota, Takashi Kawakami, Ryohei Kishi, and Yasutaka Kitagawa

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag036 doi:10.1093/bulcsj/uoag036

Open Access

Keywords: NHC | pseudohalides | silver(I)

Silver(I)–NHC complexes with chalcogenocyanate ligands: synthesis and transfer reactivity

Christopher A. Dodds,* Gavin Bain, Craig Irving, Alan R. Kennedy, and Ross Thompson

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag035 doi:10.1093/bulcsj/uoag035

Keywords: Lewis acid | rearrangement | regioselectivity

Lewis-acid-mediated regioselectivity switching by aromatization-driven rearrangement of 5-amino-1,4-epoxy-1,4-dihydronaphthalenes

Tomoka Okada and Suguru Yoshida*

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag039 doi:10.1093/bulcsj/uoag039

Keywords: intermolecular interaction | moment theory | thermodynamic characteristics

Moment analysis method using affinity capillary electrophoresis for thermodynamic study of intermolecular interactions

Kanji Miyabe,* Mio Oya, and Mayu Morita

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag030 doi:10.1093/bulcsj/uoag030

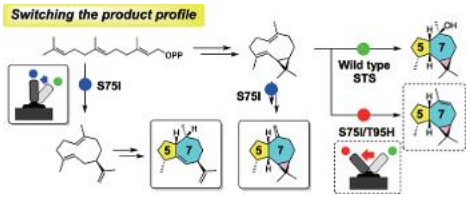
Selected Paper

Keywords: functional modulation | mutational studies | sesquiterpene synthase

Structure-guided switching of carbocation quenching in sesquiterpene synthases for accessing aromadendrane and guaiane frameworks

Atsushi Suwa, Shusuke Sato, and Atsushi Minami*

Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag032 doi:10.1093/bulcsj/uoag032



Keywords: graphene oxide | oxidative cleavage | porphyrin

Aerobic oxidative cleavage of isoeugenol to vanillin over a Co(II)-porphyrin covalently grafted on hydroxyl-rich graphene oxide

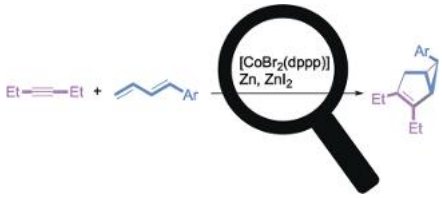
Kaiprathu Anjali* and Shun Nishimura*
Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag028 doi:10.1093/bulcsj/uoag028

Selected Paper

Keywords: bicycloaddition | cobalt(0) | reduction

Mechanistic insights on the bicycloaddition of conjugated dienes with internal alkynes catalyzed by the $[CoBr_2(dppp)]/Zn/ZnI_2$ system

Yusuke Tomita, Nobuyuki Komine, and Masafumi Hirano*
Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag027 doi:10.1093/bulcsj/uoag027



Keywords: Ataxin-3 | Machado-Joseph disease | protein aggregation

Molecular mechanism of metal-ion-induced protofibril formation of Ataxin-3

Ippei Suzuki, Shinya Tahara, Nozomi Goso, Takahiro Morito, Dai Kato, Yusuke Hatakawa, Seon Hwa Lee, Tomoyuki Oe, Kunisato Kuroi, and Takakazu Nakabayashi*
Bull. Chem. Soc. Jpn. 2026, 99, No. 3, uoag009 doi:10.1093/bulcsj/uoag009

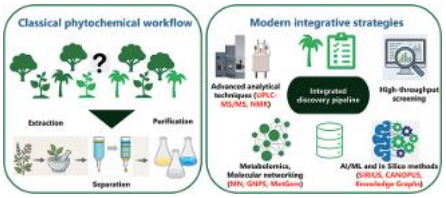
Chemistry Letters

Highlight Review Free Access

Keywords: metabolomics and data-driven approaches | natural products chemistry | trends in natural product discovery

From ethnomedicine to molecular networking and beyond: strategy evolution in medicinal plant-based natural-product discovery

Thi Hoang Yen Kieu and Emiko Yanase*
Chem. Lett. 2026, 55, No. 3, upag039 doi:10.1093/chemle/upag039

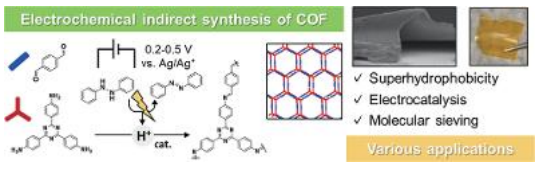


Highlight Review Free Access

Keywords: covalent organic frameworks | electrochemical synthesis | electrogenerated acid

Electrochemically controlled interface synthesis and applications of imine-bonded covalent organic framework films

Kosuke Sato,* Kento Imamura, and Shinsuke Inagi*
Chem. Lett. 2026, 55, No. 3, upag037 doi:10.1093/chemle/upag037



Keywords: $CaCu_3Ti_4O_{12}$ | oxygen vacancy | photocatalysis

Influence of oxygen vacancy in $CaCu_3Ti_4O_{12}$ materials on photocatalytic degradation of methylene blue dye pollutants

Cuncun Kong, Pengfei Cheng,* Xueyan Su, Xinrui Qin, Xin Liu, Jiale Wang, and Yin Wang
Chem. Lett. 2026, 55, No. 3, upag038 doi:10.1093/chemle/upag038

Open Access

Keywords: benzil | photoreaction | trialkyltin chloride

Photo-induced alkylation of benzil with trialkyltin chlorides

Yutaka Nishigaichi,* Yoshiki Goto, and Seiki Ikeda
Chem. Lett. 2026, 55, No. 3, upag033 doi:10.1093/chemle/upag033

Keywords: nanoparticles | soap-free emulsion polymerization | thermal annealing

Formation of polystyrene nanoparticles with a core–shell contrast by surfactant-free emulsion polymerization and thermal annealing

Taketo Tokuda, Rei Kakitani, Chisato Kizaki, Thi Ngan Vu, Hideto Minami, Rintaro Takahashi, and Shin-ichi Yusa*
Chem. Lett. 2026, 55, No. 3, upag036 doi:10.1093/chemle/upag036

Keywords: chirality-dependent photoluminescence | redox-responsive biosensing | single-walled carbon nanotubes

Potential for differentiating enzymes based on time-dependence of photoluminescence recovery rate of oxidized DNA-sWNTs

Taiyo Hirose,* Masahiro Ito, and Kazuo Umemura
Chem. Lett. 2026, 55, No. 3, upag035 doi:10.1093/chemle/upag035

Keywords: gas pressure dependence | overall water splitting | reactor scale

Increasing hydrogen and oxygen evolution rates using a directly connected composite photocatalyst, zinc rhodium oxide and silver vanadium oxide, by changing water-splitting reaction conditions

Jingjing Zhang, Masaomi Yoda, Toshihiro Takashima, and Hiroshi Irie*
Chem. Lett. 2026, 55, No. 3, upag034 doi:10.1093/chemle/upag034

Open Access

Keywords: laser-induced microbubbles | LiCl | non-aqueous solvent

Concentration and crystallization of lithium chloride in tetrahydrofuran using laser-local heating and laser-induced microbubbles

Takuro Moriyama, Kanta Iwamoto, Hayato Sasaki, Hiroshi Sakiyama, Katsuhiko Kanaizuka, and Sho Fujii*
Chem. Lett. 2026, 55, No. 3, upag032 doi:10.1093/chemle/upag032

Keywords: constrained-geometry catalysts | functional theory | polyolefin elastomer

Insight into the dynamic catalytic process of constrained-geometry catalysts for ethylene/1-octene copolymerization: a density functional theory study

Ying Liu, Long Lin, Junyu Lei, Shangtao Chen,* Xiaoliang Yu, Tao Jiang, and Bing Yan*
Chem. Lett. 2026, 55, No. 3, upag019 doi:10.1093/chemle/upag019

Keywords: 3D cancer–stromal tissue | collagen microfiber (CMF) | monocyte differentiation

Evaluation of cancer cell membrane-disruption property of poly(vinyl alcohol)–ursodeoxycholic acid using 3D cancer–stromal models with macrophages

Kazuki Moroishi, Tova Hermodsson, Lennart Greiff, Malin Lindstedt, and Michiya Matsusaki*
Chem. Lett. 2026, 55, No. 3, upag029 doi:10.1093/chemle/upag029

Keywords: cross-linking | erythrocyte band 3 | hydrostatic pressure

Hydrostatic pressure of 100 MPa facilitates the cross-linking between lysine-539 and lysine-851 by anion transport inhibitor in band 3

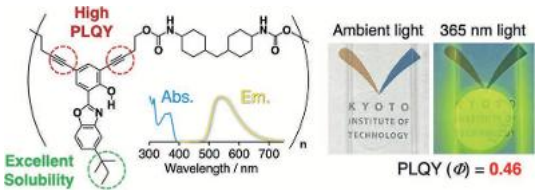
Takeo Yamaguchi,* Chinami Uchimura, Akiko Sonoda, and Mayumi Obo
Chem. Lett. 2026, 55, No. 3, upag026 doi:10.1093/chemle/upag026

Editor's Choice *Open Access*

Keywords: colorless | transparent | ESIPT | polyurethane

An amorphous polyurethane exhibiting colorless transparency and efficient yellow emission

Tsuneaki Sakurai,* Tsukasa Kawamura, and Masaki Shimizu
Chem. Lett. 2026, 55, No. 3, upag031 doi:10.1093/chemle/upag031



Open Access

Keywords: graphene | perovskite solar cell | tandem solar cell

Face-to-face all-perovskite tandem solar cells using organic recombination layers

Kei Ito, Keishi Tada, Fumiyasu Awai, Ryousuke Ishikawa, Satoshi Uchida,* and Hiroshi Segawa*
Chem. Lett. 2026, 55, No. 3, upag030 doi:10.1093/chemle/upag030

Keywords: chiral molecular glass | chiral photomechanical behavior | photochromic molecular glass

Chiral photomechanical behavior of the hybrid fibers of photochromic and chiral molecular glasses

Daiki Arata, Yen-Fu Teoh, and Hideyuki Nakano*
Chem. Lett. 2026, 55, No. 3, upag028 doi:10.1093/chemle/upag028

Keywords: Au catalyst | DFT | propylene epoxidation

Theoretical study on propylene epoxidation over ZrO_2-supported Au catalyst: understanding support dependency of catalytic activity based on stability of the active species

Yasutaka Hamada,* Ayaka Sonoura, Tomohisa Yonemori, Yuhki Ishimaru, Takashi Kawakami, Shusuke Yamanaka, Caixia Qi, and Mitsutaka Okumura
Chem. Lett. 2026, 55, No. 3, upag027 doi:10.1093/chemle/upag027