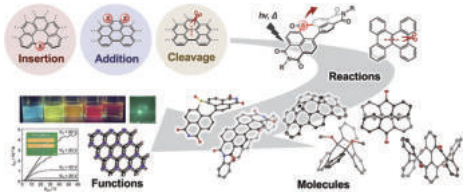
Award Accounts | Open Access

Keywords: functional π-conjugated molecules | inner modification | molecular design

Skeletal transformation of π-conjugated molecules for functional materials

Norihito Fukui*

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf062 doi:10.1093/bulcsj/uoaf062



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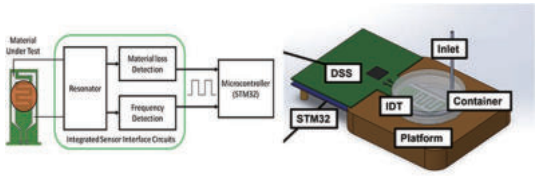
Keywords: chemical samples | CMOS IC | complex dielectric constant

Design and characterization of an LC-based resonator complementary metal-oxide-semiconductor circuitry for noncontact complex dielectric constant sensor system

Chii-Wann Lin,* Sheng-Yu Peng, Ya-Fu Liou, Hua-An Shih, Wei-Liang Hsu, Sheng-Hsun Huang, Dan-Jing Chang, and Yun-Da Sung

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf064 doi:10.1093/bulcsj/uoaf064



Open Access

Keywords: BDD | creatinine | human urine

Indirect electrochemical detection of creatinine in human urine samples using a bare boron-doped diamond electrode

Ziping Zhang, Genki Ogata, and Yasuaki Einaga*

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf069 doi:10.1093/bulcsj/uoaf069

Keywords: Ag(I) catalyzed | micellar medium | p-chlorobenzaldehyde

Unveiling the synergistic catalytic potential of sodium lauryl sulfate micelles and Ag(I): insights into the Mn(VII)-directed p-chlorobenzaldehyde oxidation kinetics

Abhishek Srivastava,* Rajeev Kumar Dohare, Madhav Krishn Goswami, and Nitin Srivastava

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf066 doi:10.1093/bulcsj/uoaf066

Keywords: azides | Michael additions | triazoles

Sequential assembly via Michael addition of 2-(triazolyl) acrylates

Suzuno Hiromasa, Mayo Hamada, Gaku Orimoto, and Suguru Yoshida*

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf061 doi:10.1093/bulcsj/uoaf061

Open Access

Keywords: mosaicity | small-wedge synchrotron crystallography | topochemical polymerization

Application of multiple small-wedge synchrotron crystallography for post-reaction structural characterization of a stimuli-responsive small-molecule crystal

Toshiyuki Sasaki,* Takanori Nakane, Kazuyoshi Takimoto, Kouhei Ichiyanagi, Yuki Mori, Seiki Baba, Naoki Sakai, Genji Kurisu,* Mikiji Miyata, Takahiro Uno,* and Takahito Itoh*

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf059 doi:10.1093/bulcsj/uoaf059

Keywords: cage silsesquioxane | hybridization | surface segregation

Four-leaf clover-shaped cage silsesquioxane-based giant molecular clusters: synthesis, properties, and hybridization behavior in poly(methyl methacrylate)

Rina Tajikawa, Jinshiro Takeuchi, Hiroaki Imoto, and Kensuke Naka*

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf060 doi:10.1093/bulcsj/uoaf060

Keywords: equilibrium constant | formation Gibbs energy | rare sugar

Thermodynamic study on isomerization equilibria between aldohexoses and ketohexoses: evaluation of Gibbs energy and enthalpy of formation for hexoses and their tautomers

Kazuhiro Fukada,* Akihide Yoshihara, Ryoko Iwata, and Taro Kozakai

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf055 doi:10.1093/bulcsj/uoaf055

Keywords: ECL | non-enzymatic sensor | pesticide

Developing a carbamate insecticide isoprocarb mini sensor based on electrochemiluminescence of luminol on screen-printed carbon electrodes

Abdul Basit, Afiten R. Sanjaya, Isnaini Rahmawati, Shafrizal R. Atriardi, Anita Rachmawati, Jarnuzi Gunlazuardi, Wulan T. Wahyuni, Irkham, and Tribidasari A. Ivandini*

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf058 doi:10.1093/bulcsj/uoaf058

Keywords: atomic force microscopy | colloid | statistical mechanics of liquid

Integral equation theory applied to atomic force microscopy reveals the number density distribution of colloidal particles on a solid substrate

Kota Hashimoto,* Ken-ichi Amano, Naoya Nishi, and Tetsuo Sakka

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf056 doi:10.1093/bulcsj/uoaf056

Keywords: desymmetrization | *meso*-diol | NHC

N-Heterocyclic-carbene-catalyzed *meso*-1,2-diol asymmetric desymmetrization

Takahiro Soeta,* Sho Yamashita, Karen Akashi, Kota Kaneta, Tomonori Ida, and Yutaka Ukaji*

Bull. Chem. Soc. Jpn. 2025, 98, No. 7, uoaf057 doi:10.1093/bulcsj/uoaf057

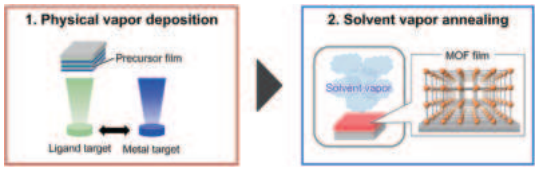
Highlight Review | Open Access

Keywords: film | metal–organic framework | vapor deposition

Fabrication of metal–organic framework thin film by physical vapor deposition and solvent vapor annealing

Ryo Nakayama*

Chem. Lett. 2025, 54, No. 7, upaf126 doi:10.1093/chemle/upaf126



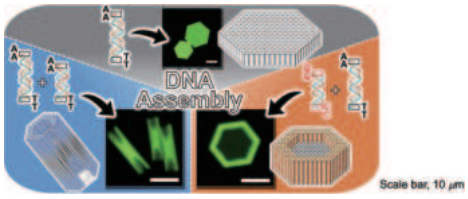
Highlight Review | Free Access

Keywords: DNA | liquid crystal | self-assembly

Hierarchical assembly of short double-stranded DNA in a molecularly crowded environment

Makiko Tanaka* and Tetsunao Makino

Chem. Lett. 2025, 54, No. 7, upaf128 doi:10.1093/chemle/upaf128



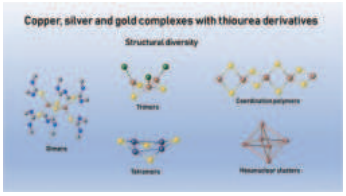
Highlight Review | Free Access

Keywords: coinage metals | sulfur-ligands | X-ray structures

Structural variety in coinage metal complexes containing thiourea-derivatives

Adrian Dömling, Dominik Klein, Sgaana Manoharan, and Fabian Mohr*

Chem. Lett. 2025, 54, No. 7, upaf116 doi:10.1093/chemle/upaf116



Keywords: FTIR spectroscopy | high-pressure hydrogen | in situ measurement

First attempt at in situ Fourier transform infrared absorption spectroscopic study on polymer materials under a high-pressure hydrogen gas environment

Fumitoshi Kaneko,* Keiko Ohyama, Hirotada Fujiwara, Hiroaki Ono, and Shin Nishimura

Chem. Lett. 2025, 54, No. 7, upaf138 doi:10.1093/chemle/upaf138

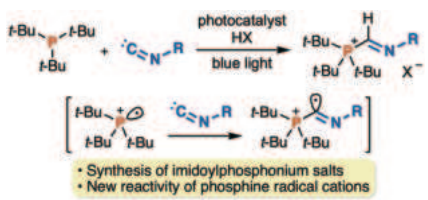
Editor's Choice | Free Access

Keywords: isocyanides | phosphines | photoredox catalysis

Synthesis of imidoyltrialkylphosphonium salts through photocatalytic reactions between isocyanides and tri-*t*-butylphosphine

Ayaka Sakurada, Masaya Sawamura,* and Yusuke Masuda*

Chem. Lett. 2025, 54, No. 7, upaf134 doi:10.1093/chemle/upaf134



Keywords: cage-shaped phosphate | chiral shift reagent | NMR

Chiral recognition of carboxylic acids and amino acids using C_3-symmetric cage-shaped phosphates as chiral-shift reagents

Xiao Liu, Akihito Konishi,* and Makoto Yasuda*

Chem. Lett. 2025, 54, No. 7, upaf139 doi:10.1093/chemle/upaf139

Keywords: carboxylation | CO_2 | organic photoredox catalysis

Metal-free carboxylation of aromatic ketones and aldehydes with CO_2 by a diazabenzoacenaphthenium photoredox catalyst

Shintaro Okumura,* Takuma Imuta, Keitaro Kato, Koki Shimosaka, Hikaru Aoki, Yuto Aoyagi, Keisuke Hikichi, and Naoki Ishida*

Chem. Lett. 2025, 54, No. 7, upaf135 doi:10.1093/chemle/upaf135

Keywords: columnar liquid crystal | helical groove | pyroelectricity

Construction of columnar structures with a helical groove. Molecular assembly of liquid-crystalline benzene-1,3-dicarboxamides and their pyroelectricity

Kazuto Takayashiki, Hikaru Takahashi, Michinari Kohri, and Keiki Kishikawa*

Chem. Lett. 2025, 54, No. 7, upaf132 doi:10.1093/chemle/upaf132

Keywords: molten salt synthesis | oxygen evolution reaction | temperature-modulated

Temperature-modulated molten salt synthesis of FeNi alloy/carbon electrocatalyst for enhanced oxygen evolution reaction

Xueda Liu, Dongyuan Song, Liyuan Dai, Keqiang He, Takeshi Yanagida, Johnny C. Ho, and SenPo Yip*

Chem. Lett. 2025, 54, No. 7, upaf130 doi:10.1093/chemle/upaf130

Keywords: cesium detection | holmium | iron

Selective electrochemical detection of alkali metal ions by cyano-bridged Ho^{3+}–Fe^{3+} dinuclear complex

Daisuke Nakane,* Takashi Nagai, and Takashiro Akitsu

Chem. Lett. 2025, 54, No. 7, upaf136 doi:10.1093/chemle/upaf136

Keywords: host–guest chemistry | nonequilibrium | polyrotaxane

Practical polyrotaxane synthesis using capillary tubes based on active-threading mechanism

Sunafu Fujiwara, Shoki Tanaka, and Munenori Numata*

Chem. Lett. 2025, 54, No. 7, upaf123 doi:10.1093/chemle/upaf123

Keywords: hydrogen evolution reaction | kinetic isotope effect | single-walled carbon nanotube-confined Pt catalyst

Enhanced kinetic isotope effect in the hydrogen evolution reaction with single-walled carbon nanotube-confined Pt catalyst under acidic and alkaline conditions

Wenwen Yin, Denggao Guan,* Zihan Zhang, Guoshu Zhang, Haowei Yang, Jinguang Cai, and Cigang Xu*

Chem. Lett. 2025, 54, No. 7, upaf124 doi:10.1093/chemle/upaf124

Keywords: crystal lattice | polyethylene single crystal | wide-angle X-ray diffraction

Crystal structure of single-crystalline high-density polyethylene in solution

Ken Kojio,* Naoki Okawa, Aya Fujimoto, Kakeru Obayashi, and Atsushi Takahara

Chem. Lett. 2025, 54, No. 7, upaf125 doi:10.1093/chemle/upaf125

Keywords: biodegradation | N-terminal modification | polyethylene terephthalate

N-Terminal modification of aromatic tether in cutinase enhances degradation of polyethylene terephthalate powder and fabrics

Md. Sadikur Rahman Shuvo, Doris Ribitsch, Georg M. Güebitz, Shuichiro Seno, and Akira Onoda*

Chem. Lett. 2025, 54, No. 7, upaf121 doi:10.1093/chemle/upaf121

Keywords: conjugate | hydroxychloroquine | nucleotide

Nucleotide–hydroxychloroquine conjugates: cutting-edge strategy for novel antimalarial and antiviral agents

Emil Salim, Hilkatul Ilmi, Tutik Sri Wahyuni, Aty Widyawaruyanti,* and Natsuhisa Oka*
Chem. Lett. 2025, 54, No. 7, upaf122 doi:10.1093/chemle/upaf122

Keywords: folded conformation | *N*-acetyl group | *N*-glycan

Synthesis of *N*-glycan mimics for investigating the influence of the *N*-acetyl group in core $GlcNAc_2$ on the folded conformation

Ruchio Usui, Megumi Kabasawa, Naoya Tajima, Akito Taira, Mitsuaki Hirose, and Kiichiro Totani*
Chem. Lett. 2025, 54, No. 7, upaf120 doi:10.1093/chemle/upaf120

Keywords: circular dichroism | oxo-vanadium (V) aminotriphenolate complex | SiO_2 surface

Circular dichroism activity induction in an oxo-vanadium (V) aminotriphenolate complex on SiO_2 functionalized with chiral *N*-[(*R*)- and (*S*)-1-phenylethyl]acetamides

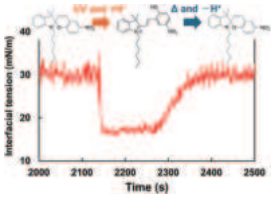
Satoshi Muratsugu,* Misaki Inagaki, Keiko Hibi, Sora Shirai, and Mizuki Tada*
Chem. Lett. 2025, 54, No. 7, upaf117 doi:10.1093/chemle/upaf117

Editor's Choice Free Access

Keywords: photo-responsive | spiropyran | surfactant

Physicochemical properties at the liquid/liquid interface of a neutral nitrobenzospiropyran derivative in response to light and pH stimuli

Kyosuke Arakawa,* Natsuna Hosokawa, Kenichi Sakai, and Hideki Sakai
Chem. Lett. 2025, 54, No. 7, upaf129 doi:10.1093/chemle/upaf129



Keywords: hole transport materials | ligands | quantum dot solar cells

Air stability of ZnO nanowire–PbS quantum dot heterojunction solar cells with dicarboxylate-bridged PbS colloidal quantum dot layer as a hole transport material

Koichi Tamaki, Xiaoxiao Mi, Naoyuki Shibayama, Ryota Jono, Haibin Wang, Takaya Kubo,* and Hiroshi Segawa*
Chem. Lett. 2025, 54, No. 7, upaf127 doi:10.1093/chemle/upaf127

Keywords: Horner–Wadsworth–Emmons reaction | successive elongation | Weinreb amide

(*Z*)-selective methoxy group-embedded Weinreb amide-type Horner–Wadsworth–Emmons reaction promoted by magnesium cation

Takatsugu Murata,* Daiki Usukura, Hisazumi Tsutsui, and Isamu Shiina*
Chem. Lett. 2025, 54, No. 7, upaf119 doi:10.1093/chemle/upaf119

Keywords: cubosomes | hydrocortisone | membrane property analysis

Effects of hydrophobic drug incorporation on cubosome–cell membrane model interactions

Ward Wakileh, Nozomi Morishita Watanabe,* Yuki Amatsu, and Hiroshi Umakoshi*
Chem. Lett. 2025, 54, No. 7, upaf013 doi:10.1093/chemle/upaf013