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BCSJ 2024 new year issue

Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoae008

doi:10.1093/bulcsj/uoae008

Keywords: excess proton/deuteron | H/D isotope effect | path integral molecular dynamics

Analysis of the structural H/D isotope effect with an excess proton/deuteron in light/heavy water solvent using path integral molecular dynamics simulations

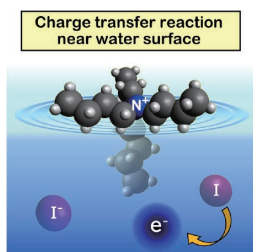
Kazuki Tatenuma, Makito Takagi, Tomomi Shimazaki, and Masanori Tachikawa*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoad009

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Keywords: charge transfer to solvent reaction | extreme ultraviolet | photoelectron spectroscopy

Charge transfer reaction at gas-liquid interface of aqueous tetrabutylammonium iodide solution: influence of ions on dynamical response of solvent

Shutaro Karashima, Yoshi-Ichi Suzuki, Yo-ichi Yamamoto, and Toshinori Suzuki*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoad012



Keywords: crystal engineering | mixed crystal | photochromism
Controlling the photochromism of *N*-salicylideneaniline by mixed crystal formation

Haruki Sugiyama, Itsuki Yoshida, Kohei Johmoto, Yurie Ishimoto, Akiko Sekine, and Hidehiro Uekusa*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoad018

Keywords: Au-SPCE | Neu5Ac | SARS-CoV-2
Electrochemical study of *N*-acetyl neuraminic acid at gold-modified screen-printed carbon electrodes for a glycoprotein sensor of SARS-CoV-2

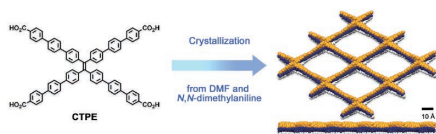
Putri Hawa Syaifie, Mochammad Arfin Fardiansyah Nasution, Isnaini Rahmawati, Endang Saepudin, and Tribidasari Anggraningrum Ivandini*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoad007

Selected Paper

Keywords: hydrogen bond | porous molecular crystal | tetraphenylethene

An expanded hydrogen-bonded organic framework formed by a tetrakis(terphenyl)ethene derivative

Mao Yamaguchi, Mario de la Hoz Tomás, Ayano Fujiwara, Ryusei Oketani, Kohei Okubo, Kouki Oka, Norimitsu Tohnai, Abderrazzak Douhal,* and Ichiro Hisaki*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoae004



Keywords: biaryl | rearrangement | sulfonium
Regioselectivity in the sulfonium-mediated arylation reactions of 2-substituted phenols with benzothienyl sulfoxide

Ryota Wakabayashi, Mizuki Fukazawa, Takashi Kurogi, and Hideki Yorimitsu*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoae002

Keywords: carborane | ionic compound | solid-state emission
Synthesis, cation exchange, and optical properties of pyrene-based chromophores containing $[CB_9H_9]^-$ and $[CB_{11}H_{11}]^-$ cluster units

Junki Ochi, Takumi Yanagihara, Kazuo Tanaka,* and Yoshiki Chujo
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoae005

Keywords: Na⁺ solvation | neutron diffraction | X-ray diffraction
Local structure of concentrated NaFSA solutions in propylene carbonate studied by X-ray and neutron diffraction methods

Yasuo Kameda,* Misaki Kowaguchi, Yuko Amo, Takeshi Usuki, Kazuhiro Nawa, and Taku J. Sato
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoae006

Keywords: cage silsesquioxane | double-cyclopolymerization | radical polymerization
Control of thermal and mechanical properties by double-cyclopolymerization and copolymerization of trifunctional POSS with varying organic substituents

Taishi Nakano, Hiroaki Imoto,* and Kensuke Naka*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoae003

Keywords: conformational entropy | ionic liquid | molecular dynamics simulation
Role of conformational entropy in low melting point of ionic liquids: a molecular dynamics simulation study

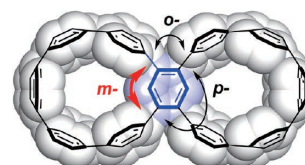
Hiroki Sumida, Yoshifumi Kimura, and Takatsugu Endo*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoad008

Controlled Chemical Construction (C3) for Advanced Functions
Memorial Collection for CSJ/OUP Co-Operative Publication
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Keywords: cyclic π -conjugated molecules | cycloparaphenylene | topology

Synthesis and physical properties of doubly-annulated [10]cycloparaphenylene

Liansheng Sun, Eiichi Kayahara,* Tohru Nishinaga, Melissa Ball, Daniel Paley, Colin Nuckolls, and Shigeru Yamago*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoad011

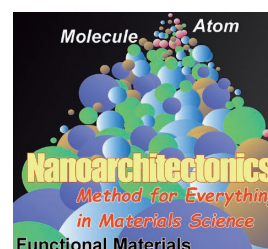


Controlled Chemical Construction (C3) for Advanced Functions
Memorial Collection for CSJ/OUP Co-Operative Publication
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Keywords: materials science | method for everything | nanoarchitectonics

Nanoarchitectonics: the method for everything in materials science

Katsuhiko Ariga*
Bull. Chem. Soc. Jpn. 2024, 97, No. 1, uoad001



Keywords: double cross-coupling | triphenylene | [2.2]paracyclophane

Synthesis and characterization of anti-[2.2](1,4)triphenylenophane

Asuka Yanagawa, Ryo Inoue, and Yasuhiro Morisaki*

Chem. Lett. 2024, 53, No. 1, upad018

doi:10.1093/chemle/upad018

Keywords: density-functional tight-binding (DFTB) | Mg-MOF-74 | styrene carbonate

Density-functional tight-binding molecular dynamics study on fixation reaction of CO₂ to styrene oxide catalyzed by Mg-MOF-74 metal-organic framework

Chien-Pin Chou, Aditya Wibawa Sakti, Yuta Tsuchiya, Yasushi Sekine, and Hiromi Nakai*

Chem. Lett. 2024, 53, No. 1, upae004

doi:10.1093/chemle/upae004

Keywords: cyclic 1,3-dicarbonyls | O-arylation | transition metal-free

Transition metal-free site-selective O-arylation of cyclic 1,3-dicarbonyls with polyfluoroarenes

Jingqi Tian, Liu Yang, Shaoqing Wang, Tao Qin, Heye Zhou,* and Bin Liu*

Chem. Lett. 2024, 53, No. 1, upae011

doi:10.1093/chemle/upae011

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Keywords: microsecond time-resolved | photocatalysis | pump-flow-probe XAFS

In situ pump-flow-probe XAFS study of photoexcited electron transfer over single atom-Pt/CoOOH photocatalysts

Weiren Cheng, Daiki Kido, Yasuhiro Niwa, Shuowen Bo, Masao Kimura,

Ryo Ota, Tamaki Shibayama, and Kiyotaka Asakura*

Chem. Lett. 2024, 53, No. 1, upae012

doi:10.1093/chemle/upae012

Keywords: chromium | multiple bonds | silicon

Reactions of neutral chromium silylyne complex with alkynes and butadiene: access to homoaromatic compounds and silacyclopentenyl complexes

Masahiro Matsuoka, Koichi Nagata, Ryoma Ohno, Tsukasa Matsuo, and Hisako Hashimoto*

Chem. Lett. 2024, 53, No. 1, upae002

doi:10.1093/chemle/upae002

Keywords: mechano-sensing luminescent materials | rotaxane | supramolecular mechanophore

A rotaxane-based supramolecular mechanophore featuring a pyridine group in the luminophore

Ryusei Mori and Yoshimitsu Sagara*

Chem. Lett. 2024, 53, No. 1, upae006

doi:10.1093/chemle/upae006

Keywords: biosensor | carbon dots | Pb²⁺ detection

A novel fluorescent biosensor for detection of Pb²⁺ based on Pb²⁺-specific DNzyme and carbon dots prepared from watermelon rind

Weiqin Zhao,* Chun Huang, Yuangang Li, Bizhuo Wei, and Jie Gao

Chem. Lett. 2024, 53, No. 1, upae008

doi:10.1093/chemle/upae008

Keywords: Mitsunobu reaction | structural analysis | sulfonamide

Synthesis and structural characterization of benzene-1,3-disulfonamide-containing 11- to 13-membered heterocycles via double Mitsunobu annulation

Kyosuke Kaneda,* Takato Koideya, Ryuji Toshima, Yoshiki Konno, and Takehiro Yamagishi

Chem. Lett. 2024, 53, No. 1, upad016

doi:10.1093/chemle/upad016

Keywords: nanofiltration membrane | quaternized lignin | triphosgene

Triphosgene crosslinked lignin-based loose nanofiltration membrane with high dye/salt separation performance, anti-fouling, and bactericidal property

Zhenyu He, Na Zhang, Li Zhao, Qiang Li,* Hussein Baqiah, Wanling Cui, and Huiqing Deng*

Chem. Lett. 2024, 53, No. 1, upad001

doi:10.1093/chemle/upad001

Keywords: layered molybdate | PL modulation | redox

Photoluminescence/optical-absorption modulation of layered lanthanide molybdates for chemical sensing of reductive materials

Takuya Hasegawa,* Yuzuki Kanaoka, Suzuka Noda, Ayahisa Okawa, and Shu Yin

Chem. Lett. 2024, 53, No. 1, upad005

doi:10.1093/chemle/upad005

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Keywords: chiral [1]rotaxane | mechanical helical chirality | phenylacetylene macrocycle (PAM)

Chiral [1]rotaxanes with a two-fold bridge based on phenylacetylene macrocycles (PAMs): two different chiroptical properties created by 7PAM

Ryo Katoono* and Kota Asai

Chem. Lett. 2024, 53, No. 1, upad006

doi:10.1093/chemle/upad006

Keywords: emulsion separation | Janus membrane | superwetting

Janus superwetting fabric for effective emulsion separation

Zhejun Yang, Qian Liu, Jing Li, Ying Dong,* and Xiao-Yu Yang*

Chem. Lett. 2024, 53, No. 1, upad007

doi:10.1093/chemle/upad007

Keywords: adsorption | Congo red | metal organic framework materials

High efficiency removal of Congo red from wastewater by metal organic framework material UiO-66

Qiuping Fu,* Hui Yuan, Jie Lou, and Lei Zha*

Chem. Lett. 2024, 53, No. 1, upad008

doi:10.1093/chemle/upad008

Keywords: Mn | Ni/SBA15 | transient method

Transient profiles between steam and cyclohexane as tar model compound on Ni-Mn/SBA-15 catalyst in biomass steam reforming at low temperature

Zan Win Moh Moh Phoo, Yoshiya Tabuchi, Osamu Nakagoe, Kai Kamada, Hideaki Sano, and Shuji Tanabe*

Chem. Lett. 2024, 53, No. 1, upad011

doi:10.1093/chemle/upad011

Keywords: D2EHPA | redox | solvent extraction

Determination of Fe²⁺ in tin oxide-containing glass through valence-selective solvent extraction and colorimetric analysis following glass decomposition

Naoki Kanno, Makiko Murata, Yoshitaka Saijo, and Masahiko Nakase*

Chem. Lett. 2024, 53, No. 1, upad014

doi:10.1093/chemle/upad014

Keywords: cubane | cuneane | scaffold editing | semibullvalene | water

Constitutional isomerization of cubane to semibullvalene via cuneane in hot water

Hiyori Takebe, Tomomi Umemura, and Seijiro Matsubara*

Chem. Lett. 2024, 53, No. 1, upad010

doi:10.1093/chemle/upad010

Keywords: gold nanoparticle | photochromic molecule | surface sol-gel method

Enhancement of photochromic molecule decolorization by coating a thin Ti(O) layer over gold nanoparticles

Suguru Higashida,* Ryota Toku, Genta Nakano, Ryo Mizutsu, Ryosuke Asato,

Marine Louis, Tsuyoshi Akiyama, and Tsuyoshi Kawai

Chem. Lett. 2024, 53, No. 1, upad002

doi:10.1093/chemle/upad002

Keywords: BODIPY | desymmetrization | ruthenium

Synthesis of symmetric and dissymmetric star-shaped pentaarylcyclopentadienyl Ru(II) complexes containing styryl-BODIPY fragments

Melissa Dumartin, Seifallah Abid, Yohan Gisbert, Nathalie Saffon-Merceron,

Sheng Gao, Nicola Armaroli, Barbara Ventura, Claire Kammerer,* and

Gwénaél Rapenne*

Chem. Lett. 2024, 53, No. 1, upad003

doi:10.1093/chemle/upad003

Keywords: 3D-RISM-SCF | methanol solution | pK_a

Assessment of the applicability of the LFC/3D-RISM-SCF scheme for pK_a prediction in methanol solutions

Ryo Fujiki, Toru Matsui, Yasuteru Shigeta, Norio Yoshida,* and Haruyuki Nakano

Chem. Lett. 2024, 53, No. 1, upad009

doi:10.1093/chemle/upad009

Keywords: ball milling | CePO₄:Tb³⁺ | polymorphic transition

Ball-milling-induced phase transformation of CePO₄:Tb³⁺ nanocrystals and their optical properties

Yupeng Sun, Dan Jiang, Yan Chen, Longfeng Li,* Mingzhu Liu, and

Yunjian Wang*

Chem. Lett. 2024, 53, No. 1, upad013

doi:10.1093/chemle/upad013

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Keywords: heteropolynuclear complex | photoluminescence | unsymmetric Pt complex

Extension of Pt-Ag cluster units by incorporating silver salts

Yiming Yang, Shinnosuke Horiuchi,* Kenichiro Omoto, Eri Sakuda,

Yasuhiro Arikawa, and Keisuke Umakoshi*

Chem. Lett. 2024, 53, No. 1, upad004

doi:10.1093/chemle/upad004