

Chemistry Letters

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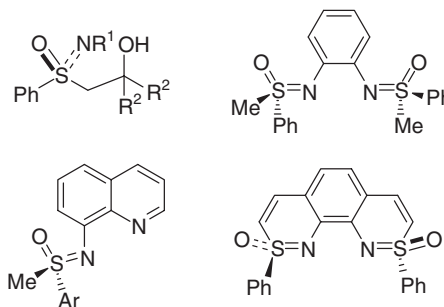
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Highlight Review

482 Sulfoximines: Synthesis and Catalytic Applications



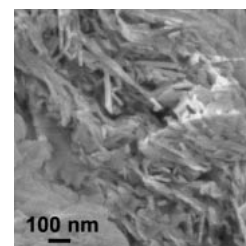
Hiroaki Okamura and Carsten Bolm

Chiral sulfoximines have a stereogenic center at the sulfur atom and their use in asymmetric synthesis is well established. Recently, sulfoximines have been recognized as an interesting new class of chiral ligands, which can be applied in various asymmetric metal catalyses. This review summarizes the latest progress in synthetic methods towards sulfoximines and the application of chiral derivatives in catalytic asymmetric reactions.

Letter

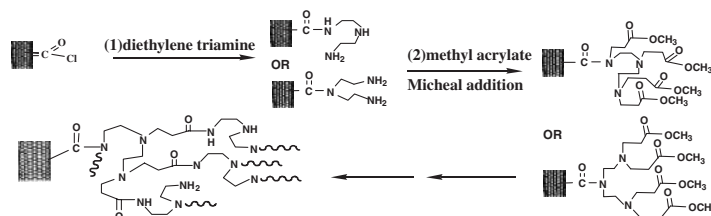
488 Fabrication of Single Crystalline Neodymium Oxide Nanowires under Mild Conditions

Nanowires of single crystalline neodymium oxide with diameter of 10 to 50 nm and length of several hundred nanometers were synthesized under mild conditions using surfactant-assisted assemblies composed of laurylamine hydrochloride and neodymium alkoxide modified with acetylacetonone.



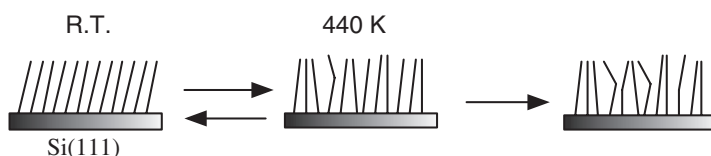
Yusuke Murata and Motonari Adachi

490 **Hyperbranched Poly(amidoamine)-modified Multi-walled Carbon Nanotubes via Grafting-from Method**



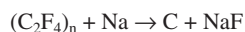
Liang Cao, Wuli Yang, Junwei Yang, Changchun Wang, and Shoukuan Fu

492 **Temperature Dependence of the Structure of Alkyl Monolayers on Si(111) Surface via Si-C Bond by ATR-FT-IR Spectroscopy**

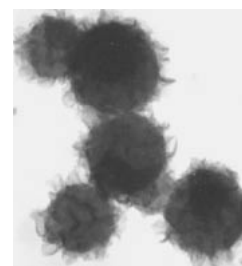


Ryo Yamada, Masato Ara, and Hirokazu Tada

494 **Preparation of Carbon Spheres Composed of Entangled Fibers at Low Temperature**

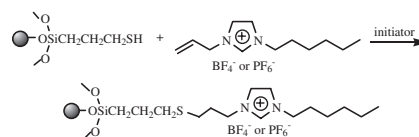


Carbon spheres composed of entangled fibers were prepared at 250 °C for 24 h using sodium and polytetrafluorethylene as reactants and benzene as solvent. A possible mechanism of the formation is proposed.



Youbao Ni, Mingwang Shao, Wu Zhang, and Zhengcui Wu

496 **Immobilized 1,3-Dialkylimidazolium Salts as New Interface in HPLC Separation**

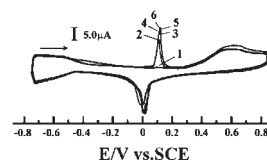


Silica particles were chemically modified with ionic liquids and used as the stationary phases for the HPLC separation of alkaloids following the reversed phase and ion-pair mechanism.

Shu-Juan Liu, Feng Zhou, Liang Zhao, Xiao-Hua Xiao, Xia Liu, and Sheng-Xiang Jiang

498 **Electrochemical Studies of Silver Nanoparticles Tethered on Silica Sphere**

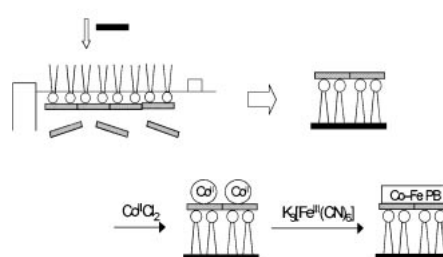
The electrochemical properties of silver particles tethered on the silica sphere has been investigated. The technique to tether silver particles on silica sphere was established for the measurement of electrochemical behavior, which efficiently avoided the flocculation of colloidal metal particles in an electrolyte solution.



Zhong-jie Jiang, Chun-yan Liu, and Yong-jun Li

500 **Photomagnetic Co-Fe Prussian Blue Thin Films Fabricated by the Modified Langmuir-Blodgett Technique**

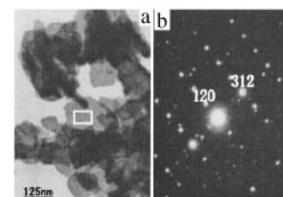
Takashi Yamamoto, Yasushi Umemura, Osamu Sato, and Yasuaki Einaga



502 **Hydrothermal Synthesis and Characterization of $\text{Bi}_2\text{Fe}_4\text{O}_9$ Nanoparticles**

Ying Xiong, Mingzai Wu, Zhenmeng Peng, Nan Jiang, and Qianwang Chen

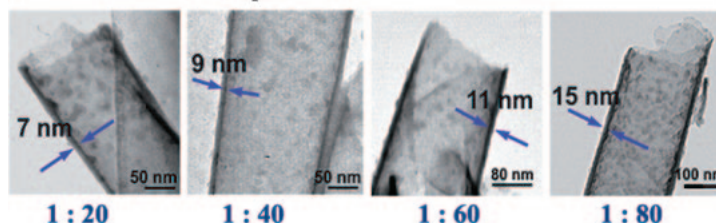
Sheet-like $\text{Bi}_2\text{Fe}_4\text{O}_9$ nanoparticles were hydrothermally synthesized through the reaction of $\text{Bi}(\text{NO}_3)_3 \cdot 5\text{H}_2\text{O}$ and $\text{Fe}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$ in the strong alkali solution at 180°C , which is a rather mild conditions. TEM and SAED reveal that the particles are sheet-like, about 30 nm in the direction of the thickness and the single crystal feature of the particles.



504 **Controlling Wall Thickness of Silica Nanotubes within 4-nm Precision**

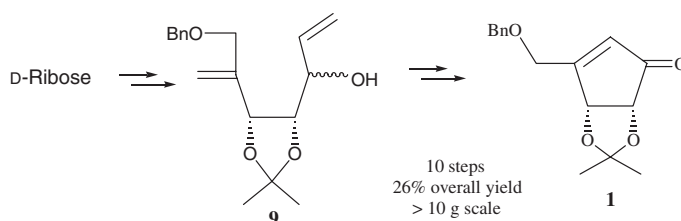
Qingmin Ji, Rika Iwaura, and Toshimi Shimizu

Molar Ratio of the Lipid 1 to TEOS



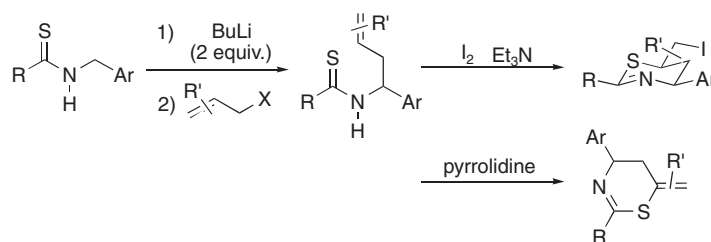
506 **Preparative Synthesis of the Key Intermediate, (4*R*,5*R*)-3-Benzoyloxymethyl-4,5-isopropylidenedioxycyclopent-2-enone for Carbocyclic Nucleosides**

Hyung Ryong Moon, Won Jun Choi, Hea Ok Kim, and Lak Shin Jeong

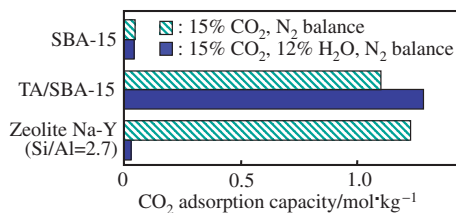


508 **Iodo-cyclization of *N*-Homoallyl Thioamides Leading to 2,4-Diaryl-5,6-dihydro-4*H*-1,3-thiazines**

Toshiaki Murai, Hisayuki Niwa, Tsutomu Kimura, and Fumitoshi Shibahara



510 **Adsorption of Carbon Dioxide on Amine Modified SBA-15 in the Presence of Water Vapor**



Norihito Hiyoshi, Katsunori Yogo, and Tatsuaki Yashima

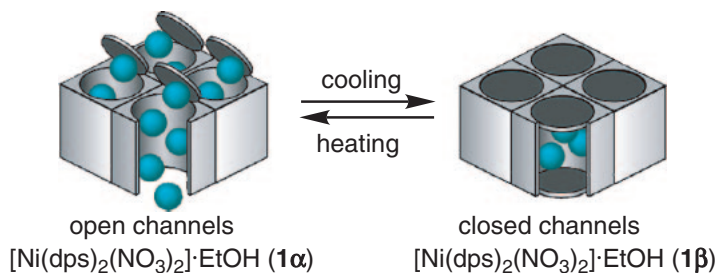
Temperature: 333 K TA: $\text{H}_2\text{N}\sim\text{NH}\sim\text{NH}\sim\text{Si}\begin{matrix} \text{O}^- \\ | \\ \text{O}^- \end{matrix}$

512 **Self-assembly of Poly(aniline-co-anthranilic acid) Copolymers and PVP into Fibers and Other Microstructures**



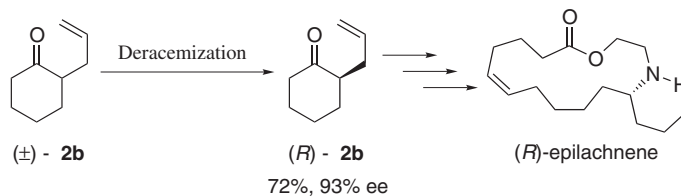
Xiaofeng Lu, Youhai Yu, Liang Chen, Huaping Mao, Wanjin Zhang, and Yen Wei

514 **A New Nickel Coordination Polymer with Dynamic Channels that Mechanically Capture and Release Including Guest Molecules Responding to a Temperature Variation**



Mitsuru Kondo, Yusuke Shimizu, Makoto Miyazawa, Yasuhiko Irie, Akira Nakamura, Tetsuyoshi Naito, Kenji Maeda, Fumio Uchida, Tadahiro Nakamoto, and Akira Inaba

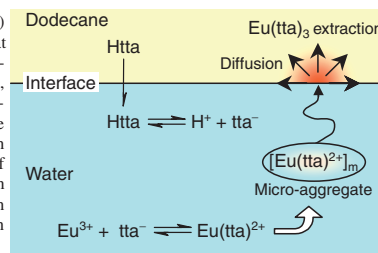
516 **A Modified Thermodynamically Controlled Deracemization of 2-Allylcyclohexanone and Its Application to Asymmetric Synthesis of (*R*)-(-)-Epilachnene**



Hiroto Kaku, Natsuko Okamoto, Aya Nakamaru, and Tetsuto Tsunoda

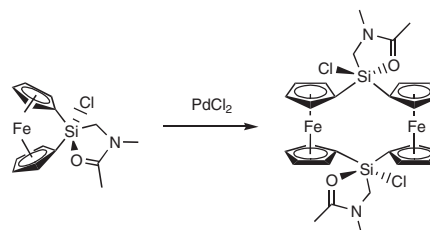
518 **Dynamic Microscopic Extraction of Europium(III) with 2-Thenoyltrifluoroacetone Observed as Random Fluorescence Flashes at Dodecane–Water Interface**

Many random circular flashes of Eu(III) fluorescence (8–23 μm in diameter) appeared at the interface in the extraction of Eu(III) with 2-thenoyltrifluoroacetone (Htta) into dodecane, when a Eu^{3+} aqueous solution was added after pre-distribution of Htta in the aqueous phase. The flash was caused by the interfacial reaction between a pre-generated micro-aggregate of $\text{Eu}(\text{tta})^{2+}$ in the aqueous phase and excess Htta in the dodecane phase. The interfacial reaction produced more fluorescent $\text{Eu}(\text{tta})_3$, which diffused away into the dodecane phase.



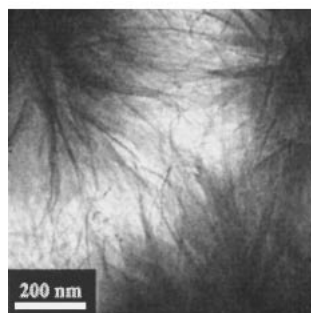
Ayaka Takata, Satoshi Tsukahara, and Hitoshi Watarai

520 **The First Synthesis and X-ray Structure of [1.1]Silaferrrocenophane Containing Penta-coordinate Silicon Moieties**



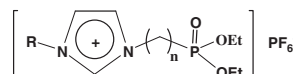
Ming Bao, Yasuo Hatanaka, and Shigeru Shimada

522 **Microwave-Assisted Solvothermal Synthesis of Radial ZnS Nanoribbons**



Xiaoying Liu, Bozhi Tian, Chengzhong Yu, Bo Tu, and Dongyuan Zhao

524 **Functional Room-temperature Ionic Liquids as Lubricants for an Aluminum-on-Steel System**



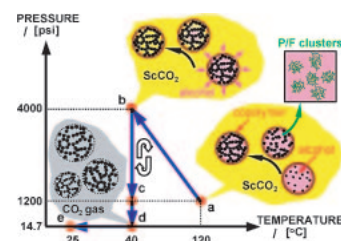
1a: R = C₄H₉, n = 2, [DPEBIM][PF₆] 1b: R = C₄H₉, n = 3, [DPPBIM][PF₆]
 2a: R = C₆H₁₃, n = 2, [DPEHIM][PF₆] 2b: R = C₆H₁₃, n = 3, [DPPHIM][PF₆]
 3a: R = C₈H₁₇, n = 2, [DPEOIM][PF₆] 3b: R = C₈H₁₇, n = 3, [DPOIM][PF₆]

A new series of imidazolium cation based room-temperature ionic liquids (RTILs), with *O,O*-diethyl phosphonyl groups on the alkyl side-chain has been prepared; the tribological properties of the ionic liquids were evaluated and possible mechanisms were discussed.

Zonggang Mu, Weimin Liu, Shuxiang Zhang, and Feng Zhou

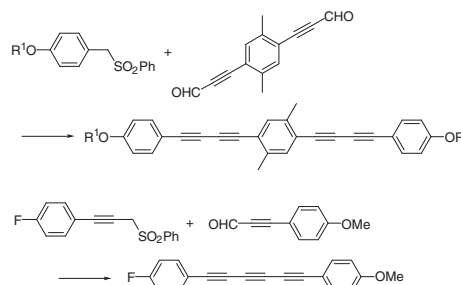
526 **Highly Porous Organic Nanoparticles Formed from Supercritical Carbon Dioxide Mediated Sol-Emulsion-Gel Method**

Highly porous organic nanoparticles have been prepared through stable dispersion of nanometer-scaled emulsion droplets into continuous phase of ScCO₂, sol-gel chemistry in emulsion droplets, and then supercritical drying; (A) sol-emulsion-gel polymerization, (B) solvent exchange, (C) supercritical drying, (D) vent of CO₂ and (E) temperature quenching. The reaction medium was exchanged by repeated pressure-swing process between B and C.



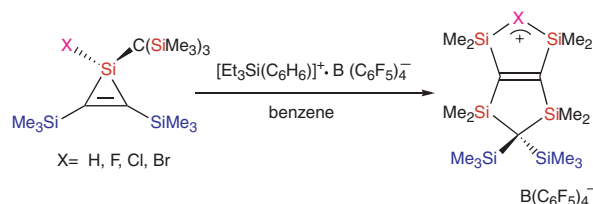
Jun-Young Lee and Jung-Hyun Kim

528 **High Birefringent Bisdiynes and Hexatriynes Based on Double Elimination of β -Substituted Sulfones**



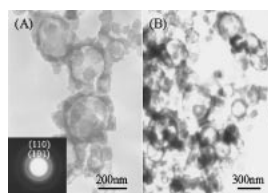
Fanguo Ye, Akihiro Orita, Jayamma Yaruva, Tatsuya Hamada, and Junzo Otera

- 530 **Silylium Ions Stabilized by an Si-X-Si Three-center Bond (X = Halogen or Hydrogen)**



Akira Sekiguchi, Yasuyuki Murakami, Norihisa Fukaya, and Yoshio Kabe

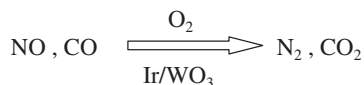
- 532 **Synthesis of Carbon Hollow Spheres by a Reaction of Hexachlorobutadiene with Sodium Azide**



Liang Shi, Yunle Gu, Luyang Chen, Zeheng Yang, Jianhua Ma, and Yitai Qian

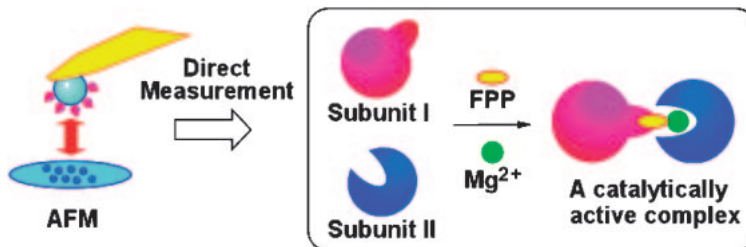
- 534 **Selective Catalytic Reduction of NO by CO over Supported Iridium and Rhodium Catalysts**

Ir/WO₃ prepared by loading of H₂IrCl₆ (0.5 wt % Ir) on WO₃ shows relatively high activity for the NO reduction with CO and good selectivity to N₂ formation.



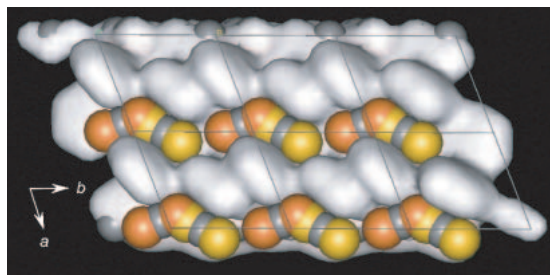
Masahide Shimokawabe and Noriyoshi Umeda

- 536 **Direct Observation of Specific Interaction between Enzyme-substrate Complexes Using Colloidal Probe Atomic Force Microscopy**



Takehiro Suzuki, Yuan-Wei Zhang, Tanetoshi Koyama, Darryl Y. Sasaki, and Kazue Kurihara

- 538 **Inclusion Formation between 1D Coordination Polymer Host and CS₂ through Vapor Adsorption**

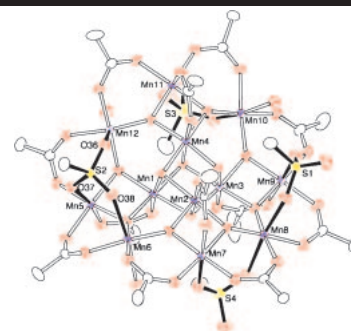


Satoshi Takamizawa, Ei-ichi Nakata, and Teruo Saito

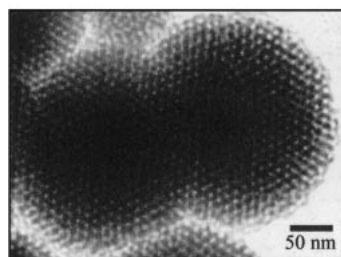
540 **A Novel Mn₁₂ Single-molecule Magnet with a μ_3 -Methanesulfonate Bridge**

The first Mn₁₂ complex with μ_3 -methanesulfonate bridge was observed and its single-molecular magnetic property was characterised.

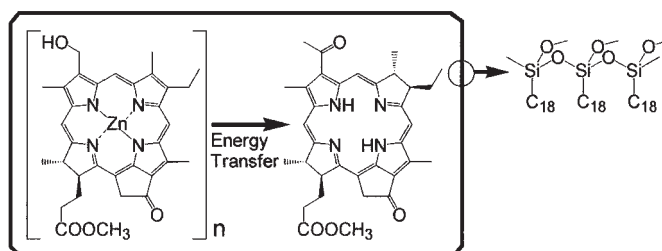
Takayoshi Kuroda-Sowa, Tetsuji Handa, Takehiro Kotera, Masahiko Maekawa, Megumu Munakata, Hitoshi Miyasaka, and Masahiro Yamashita

542 **Highly Ordered Mesoporous Ni Particles Prepared by Electroless Deposition from Lyotropic Liquid Crystals**

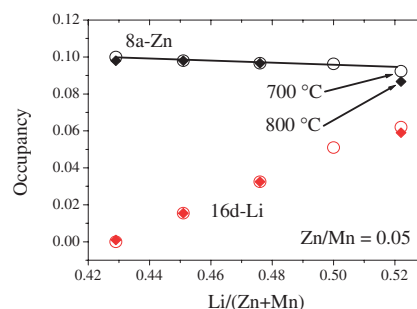
Yusuke Yamauchi, Tokihiko Yokoshima, Hitomi Mukaibo, Masato Tezuka, Tetsuro Shigeno, Toshiyuki Momma, Tetsuya Osaka, and Kazuyuki Kuroda

544 **Excitation Energy Transfer from Self-aggregates of Zinc Chlorins to a Bacteriochlorin in a Silicate Nanocapsule**

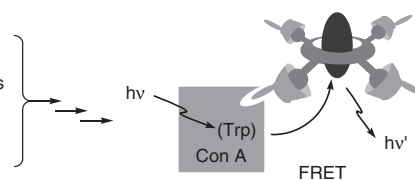
Yoshitaka Saga, Sho Akai, Tomohiro Miyatake, and Hitoshi Tamiaki

546 **Preparation of Li_{1+y-x}Zn_xMn_{2-y}O₄ Spinel as a Cathode Material for Li⁺-batteries**

Hideyuki Noguchi, Hiroyoshi Nakamura, Masaki Yoshio, and Hongyu Wang

548 **A FRET Study of Guest Delivery to Concanavale A by Supramolecular Hosts Composed of an Adamantyl-Appended Cyclophane and Saccharide-Branched Cyclodextrins**

Adamantyl-appended Cyclophane
Saccharide-branched Cyclodextrins
Perylene
Concanavale A (Con A)

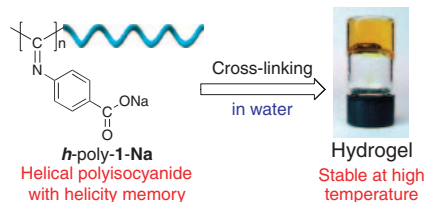


Osamu Hayashida and Itaru Hamachi

550 **An Optically Active Hydrogel Composed of Cross-linked Poly(4-carboxyphenyl isocyanide) with a Macromolecular Helicity Memory**

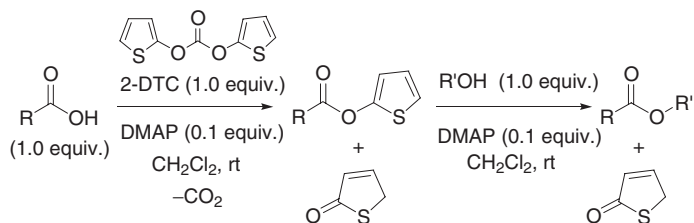
Masayoshi Ishikawa, Daisuke Taura, Katsuhiko Maeda, and Eiji Yashima

Hydrogels composed of a poly(4-carboxyphenyl isocyanide) with a macromolecular helicity memory are synthesized by cross-linking with achiral diamines in water, and the obtained hydrogels maintain their memory even at 90 °C in water, although the helical polymer before the cross-linking lost its memory at high temperature.



552 **A New Method for the Esterification of Carboxylic Acids with Various Alcohols by Using Di-2-thienyl Carbonate, a New Coupling Reagent**

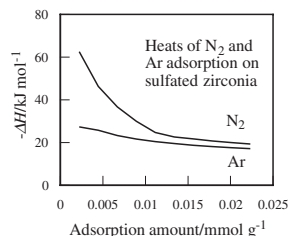
Teruaki Mukaiyama, Yoshiaki Oohashi, and Kentarou Fukumoto



554 **Distinction of Acid-type on Solid Acid Surface by Comparison of Adsorption Heats of Nitrogen and Argon**

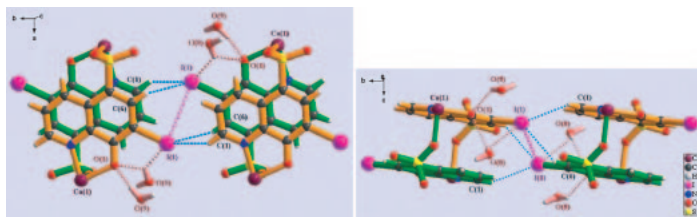
Hiromi Matsuhashi, Keiko Yamagata, and Kazushi Arata

The deviation of heats of N_2 and Ar adsorption was 3 kJ mol^{-1} at the most on Brønsted acid sites, while Lewis acids gave large difference more than 15 kJ mol^{-1} , enabling the result to distinguish the Brønsted- and Lewis-acid types.



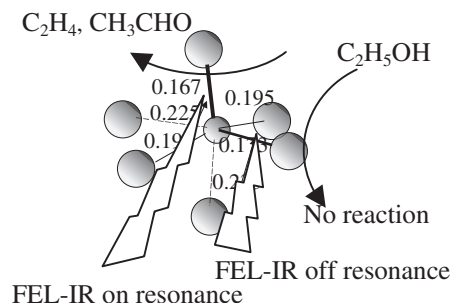
556 **Aromatic Iodine-Assisted Self-assembly of a Cobalt(II) Complex of Ferron (Ferron = 7-iodo-8-hydroxyquinoline-5-sulfonate)**

Feng Zhang, Yi-Zhi Li, Xu Gao, Hui-Lan Chen, Qi-Tao Liu, Akira Odani, and Osamu Yamauchi



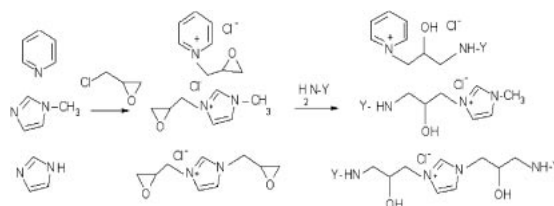
558 **Surface Reactions on MoO₃ Induced by Tunable Pulse Infrared Free Electron Laser**

Shisuke Sato, Hironobu Niimi, Shushi Suzuki, Wang-Jae Chun, Katsumi Irokawa, Haruo Kuroda, and Kiyotaka Asakura



560 **New Epoxide Molten Salts: Key Intermediates for Designing Novel Ionic Liquids**

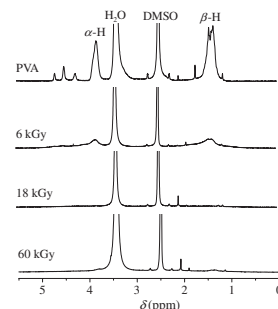
The first examples of a new family of room temperature ILs, based on pyridinium and imidazolium cations containing glycidyl (2,3-epoxypropyl) chains have been synthesized for designing new functionalized ILs.



D. Demberelnyamba, Sang Jun Yoon, and Huen Lee

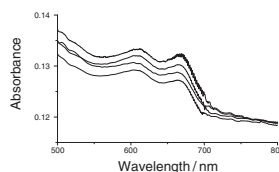
562 **Mechanistic Study on the Radiolysis of Dilute PVA Aqueous Solutions**

The structural analysis of degradation intermediates by ^1H NMR determination demonstrated the key role of hydrogen abstraction in PVA degradation initiated by $\cdot\text{OH}$ radicals, which led to further chain scission.



Shu-Juan Zhang and Han-Qing Yu

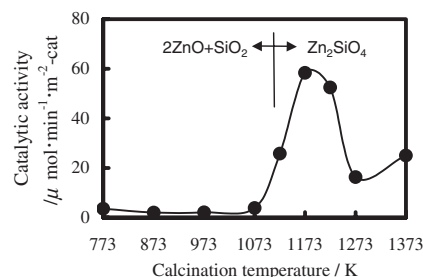
564 **Layer-by-Layer Assembly of Low Molecular Weight Dye/Enzyme Composite Thin Films for Biosensor Application**



Multilayer films of methylene blue (MB) and horseradish peroxidase (HRP) were fabricated layer-by-layer through electrostatic force. MB was firstly pre-absorbed with negatively charged PSS [poly(sodium-*p*-styrenesulfonate)]. The composite films of MB/HRP were uniform and stable. This technique can be applied to reagentless biosensor for H_2O_2 .

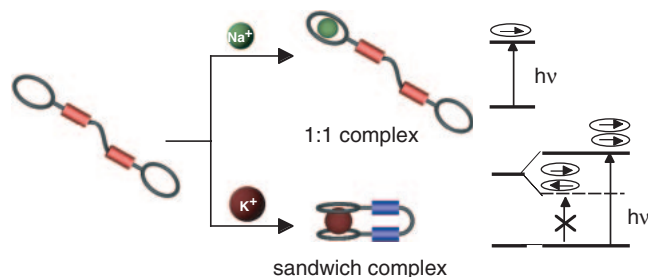
Yangmei Li, Zhichun Chen, Xiuming Jiang, and Xianfu Lin

566 **Acidic Properties and Catalytic Activities of Sol-gel Derived Zn_2SiO_4**



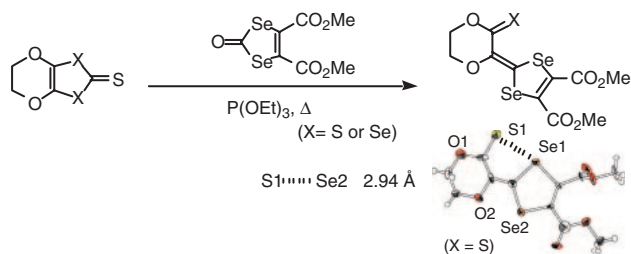
Yoritsugu Shino and Hirotohi Nakabayashi

568 **Potassium Ion Selective Signaling Based on Intramolecular Dimer Formation of Bis-crown Ether Azochromophore—Chemosensor Exhibiting Forceps Function—**



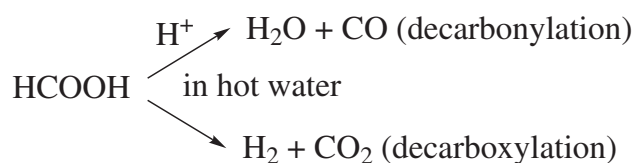
Takashi Hayashita, Akiko Murakami, and Norio Teramae

- 570 **Anomalous Ring Cleavage of 1,3-Dithiole- and 1,3-Diselenole-2-thiones under the Cross-Coupling Conditions Using Triethyl Phosphite**



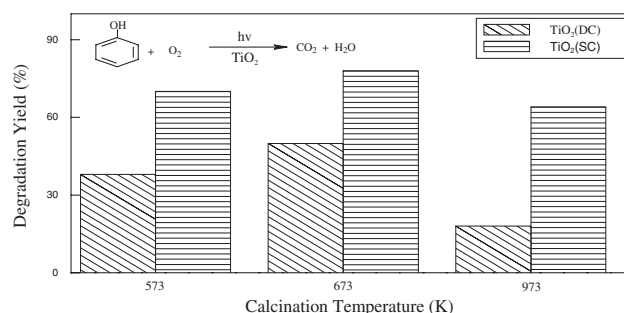
Masahiko Iyoda, Ryoji Watanabe, and Yoshihiro Miyake

- 572 **Effect of Concentration, Acid, Temperature, and Metal on Competitive Reaction Pathways for Decarbonylation and Decarboxylation of Formic Acid in Hot Water**



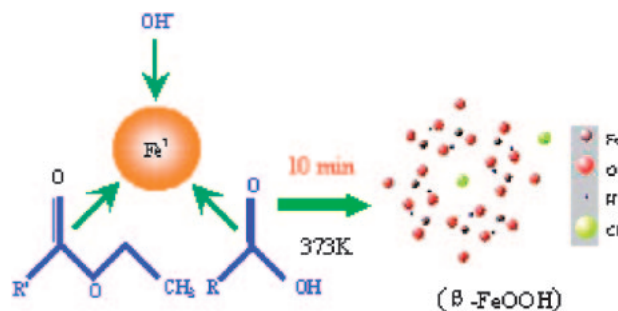
Chihiro Wakai, Ken Yoshida, Yasuo Tsujino, Nobuyuki Matubayasi, and Masaru Nakahara

- 574 **An Effective TiO_2 Photocatalyst Prepared under Supercritical Conditions**



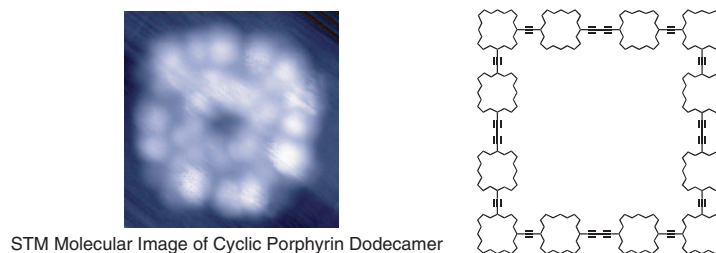
Hexing Li, Jian Zhu, Guisheng Li, and Ying Wan

- 576 **Fast Inducing Synthesis of Spherical Superparamagnetic β -FeOOH Nanoparticles without Aggregation**



Honglei Fan, Baozhen Song, Zhenqiu Yang, and Qiaoxia Li

- 578 **A Square Cyclic Porphyrin Dodecamer: Synthesis and Single-Molecule Characterization**

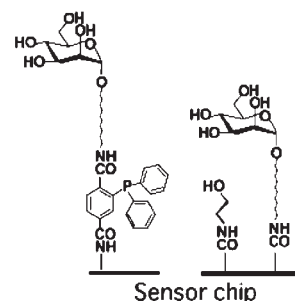


Aiko Kato, Ken-ichi Sugiura, Hitoshi Miyasaka, Hiroyuki Tanaka, Tomoji Kawai, Manabu Sugimoto, and Masahiro Yamashita

580 Display of Azido Glycoside on a Sensor Chip

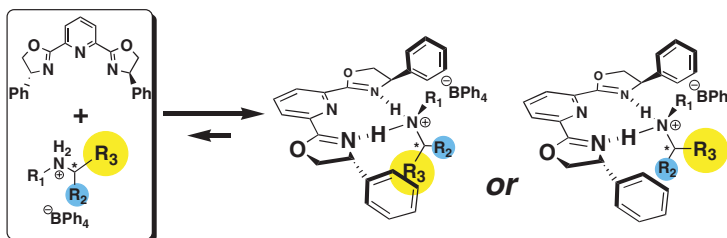
Toshinori Sato, Sinya Fujita, Maria Carmelita Z. Kasuya, Kenichi Hatanaka, and Tatsuya Yamagata

Using 12-azidododecyl β -mannoside, we successfully immobilized azido glycoside onto a sensor chip by either the Staudinger reaction or reduction of azido group followed by condensation reaction. Specific binding of Concanavalin A to the sensor chip proved immobilization of the glycoside by either method.



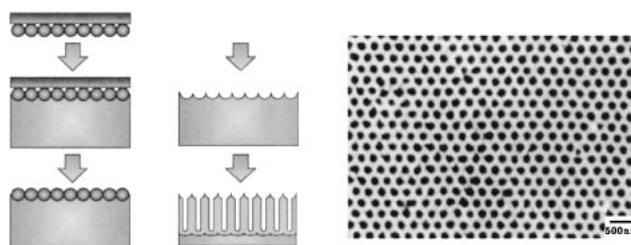
582 A Chiral Pybox Ligand as a New Chiral Shift Reagent for Secondary Dialkylammonium Cations

Kazuki Sada, Yuichi Tateishi, and Seiji Shinkai



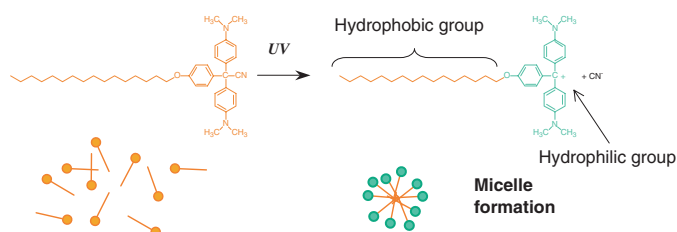
584 Fabrication of Highly Ordered Anodic Porous Alumina Using Self-organized Polystyrene Particle Array

Hideki Masuda, Yoshitaka Matsui, Masato Yotsuya, Futoshi Matsumoto, and Kazuyuki Nishio



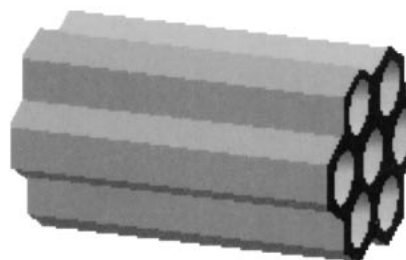
586 Effective Photocontrol of Micelle Formation by Malachite Green Derivative Carrying a Long Alkyl Chain

Ryoko M. Uda, Masatoshi Oue, and Keiichi Kimura

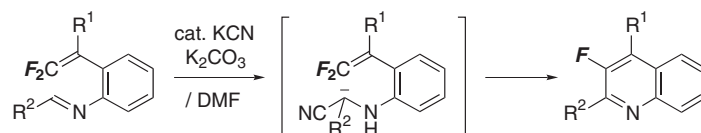


588 Direct Synthesis and Spectroscopic Evidence of Framework Co(II) ions in SBA-15 Mesoporous Molecular Sieves

Ajayan Vinu and Martin Hartmann



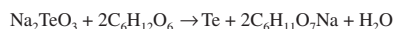
- 590 **KCN-Catalyzed C–C Bond Formation between Imine and *gem*-Difluoroalkene Moieties: A Facile Synthesis of 2,4-Disubstituted 3-Fluoroquinolines**



Takashi Mori and Junji Ichikawa

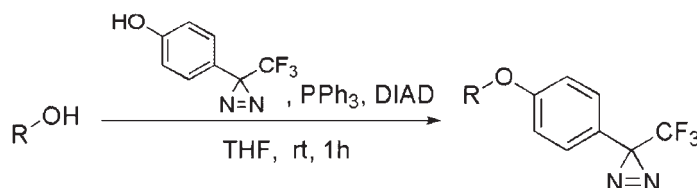
- 592 **Large-scale Synthesis of Crystalline Tellurium Nanowires with Controlled-Diameters via a Hydrothermal-reduction Process**

Single crystalline tellurium nanowires with controlled diameters and with high aspect ratios were produced with a yield of $\approx 95\%$ via a hydrothermal-reduction process using Na_2TeO_3 and glucose as reactants and sodium dodecyl benzenesulfonate (SDBS) as surfactant at 180°C .



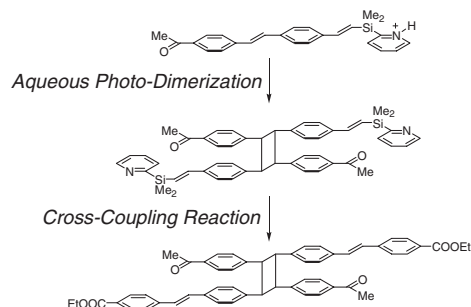
Liqiang Xu, Yanwei Ding, Guangcheng Xi, Wanqun Zhang, Yiya Peng, Weichao Yu, and Yitai Qian

- 594 **Useful Method for Direct Introduction of the Photoaffinity 3-(4-Hydroxyphenyl)-3-trifluoromethyl-diazirine Group**



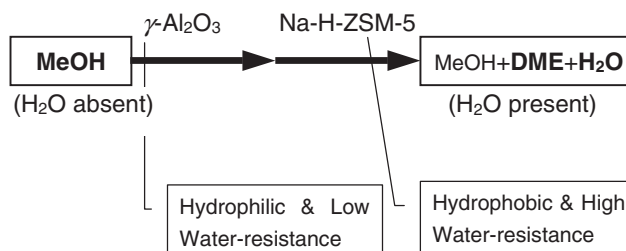
Toshihiko Shigenari, Toshikazu Hakogi, and Shigeo Katsumura

- 596 **Aqueous Photo-Dimerization Using 2-Pyridylsilyl Group as a Removable Hydrophilic Group**



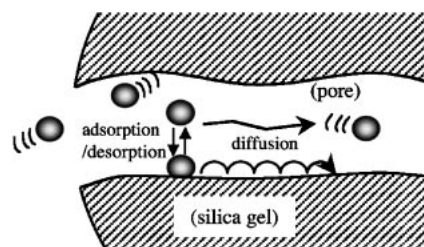
Toshiki Nokami, Kenichiro Itami, and Jun-ichi Yoshida

- 598 **Superior Dehydration of CH_3OH over Double Layer Bed of Solid Acid Catalysts —A Novel Approach for Dimethyl Ether (DME) Synthesis**



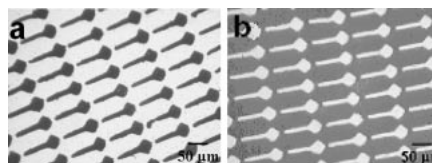
Hyun-Seog Roh, Ki-Won Jun, Jae-Woo Kim, and Venkataraman Vishwanathan

600 Nanometer Pore Size Dependence of Intraparticle Diffusion in Silica Gel



Tomomi Sekine and Kiyoharu Nakatani

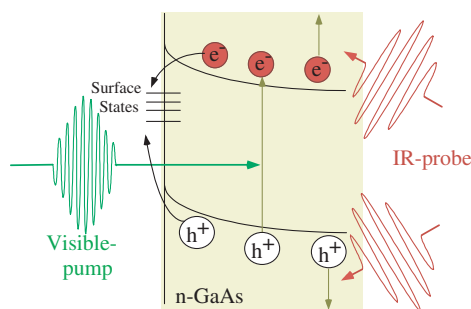
602 Selective Electrodeposition and Etching on Polymer Brush Template Prepared by Patterned Monolayer Surface Initiated Polymerization



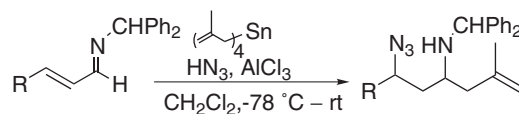
Electrodeposition and etching resistance can be achieved on the same area of a single binary pattern of hydrophilic polymer brush and hydrophobic self-assembled monolayer, thus resulting in conducting polymer and metal microstructures with the same pattern.

Feng Zhou, Zhilu Liu, Weinan Li, Jingcheng Hao, Miao Chen, Weimin Liu, and D. C. Sun

604 Femtosecond Visible Pump Mid-IR Probe Study on the Effects of Surface Treatments on Ultrafast Photogenerated Carrier Dynamics in n-GaAs (100) Crystals

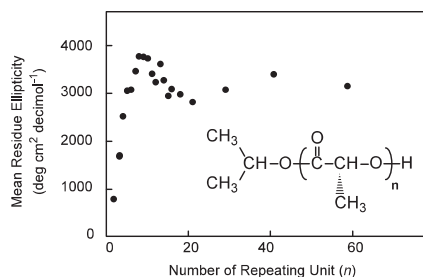


Kojiro Ebina, Ichizo Yagi, Hidenori Noguchi, and Kohei Uosaki

606 Double Nucleophilic Addition of Azide and Tetramethyltin to α,β -Unsaturated Aldimines Promoted by Aluminum Chloride

Makoto Shimizu, Chiaki Yamauchi, and Toshiki Ogawa

608 Effect of Polymerization Degree on Building-up Helical Structure of Oligo(L-lactic acid)

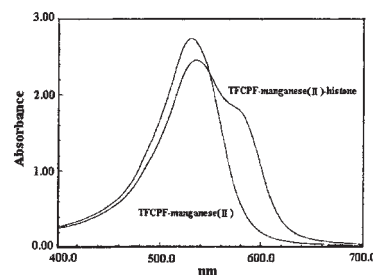
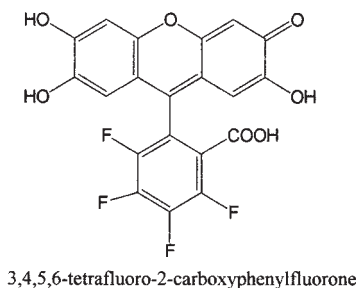


We synthesized oligo(L-lactic acid) with almost mono dispersion and could confirm from the CD spectra that the number of repeating units of 8 to 10 was enough to build up the helical structure.

Tatsumi Kimura, Takashi Fukuda, Satoru Shimada, and Hiro Matsuda

610 **Spectrophotometric Determination of DNA Binding Protein, Histone, with 3,4,5,6-Tetrafluoro-2-carboxyphenylfluorone and Manganese(II)**

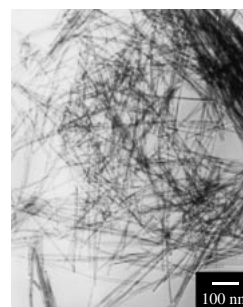
Hiroko Kadobayashi, Terue Nakamori, Takako Yamaguchi, and Yoshikazu Fujita



612 **Hydrothermal Synthesis of Ultraviolet-emitting Cerium Phosphate Single-crystal Nanowires**

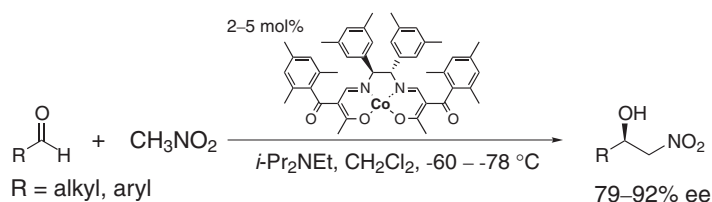
Wen-Bo Bu, Zi-Le Hua, Hang-Rong Chen, Ling-Xia Zhang, and Jian-Lin Shi

We have developed the traditional hydrothermal approach, which is a facile and versatile low-temperature synthetic method for the synthesis of various 1D systems, to fabricate cerium phosphate single-crystalline nanowires with a narrow distribution of diameters, which display photoluminescence in the UV region.



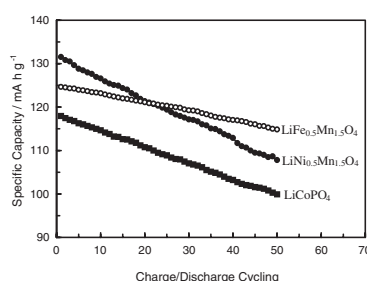
614 **Enantioselective Henry Reaction Catalyzed by Optically Active Ketoiminatocobalt Complexes**

Youichi Kogami, Takahiro Nakajima, Tomoko Ashizawa, Satoko Kezuka, Taketo Ikeno, and Tohru Yamada



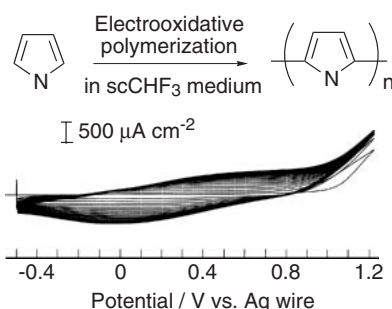
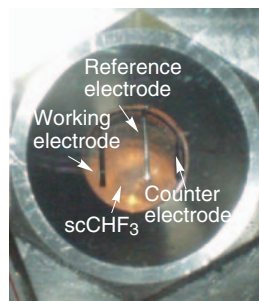
616 **Improving Cyclability of 5 V Cathodes by Electrochemical Surface Modification**

Ali Eftekhari

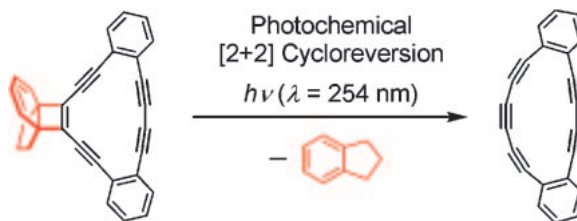


618 **Electrochemical Synthesis of Polypyrrole and Polythiophene in Supercritical Trifluoromethane**

Mahito Atobe, Hisashi Ohsuka, and Toshio Fuchigami

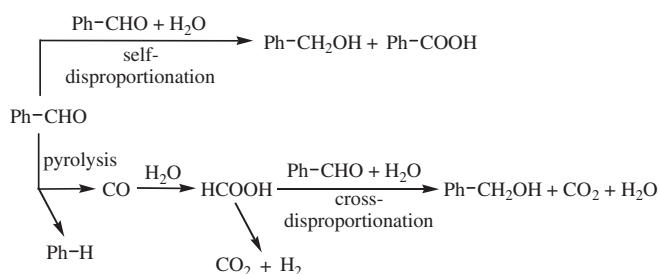


620 **Formation and Characterization of Highly Strained Dibenzopentakisdehydro[14]annulene and Theoretical Study on Its Aromaticity**



Ichiro Hisaki, Takeshi Eda, Motohiro Sonoda, and Yoshito Tobe

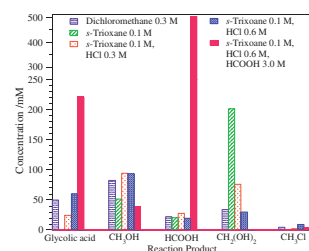
622 **Noncatalytic Disproportionation and Decarbonylation Reactions of Benzaldehyde in Supercritical Water**



Yasuharu Nagai, Nobuyuki Matubayasi, and Masaru Nakahara

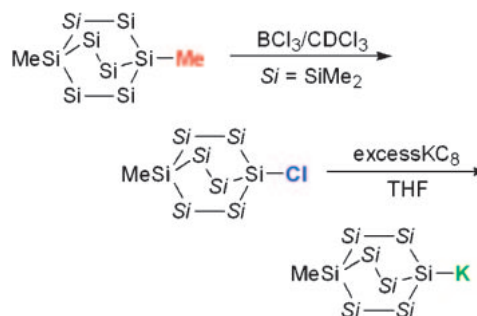
624 **Acid-Catalyzed Hydrothermal Formation of Carbon-Carbon Bond in Glycolic Acid from a Series of Formaldehyde Producers**

An acidic hydrothermal reaction of formaldehyde, which produces glycolic acid, is reported. The reaction is a chemical evolution process from a C1 compound to a C2 in hot water, and proceeds without any metal catalysts.



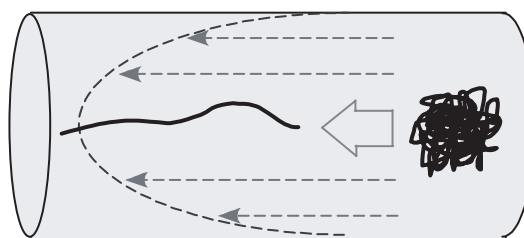
Saiko Morooka, Chihiro Wakai, Nobuyuki Matubayasi, and Masaru Nakahara

626 **Novel Synthesis and Bridgehead Functionalization of Permethylbicyclo[2.2.2]octasilane**



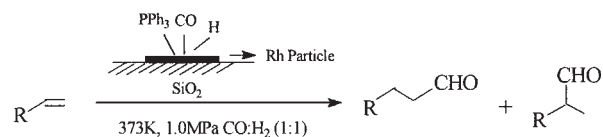
Wataru Setaka, Natsuki Hamada, and Mitsuo Kira

628 **Direct Observation of Long-strand DNA Stretching in Microchannel Flow**



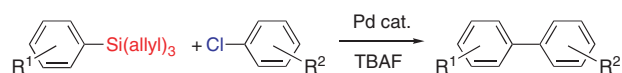
Kenichi Yamashita, Yoshiko Yamaguchi, Masaya Miyazaki, Hiroyuki Nakamura, Hazime Shimizu, and Hideaki Maeda

630 **Recyclable Heterogeneous Rh/SiO₂ Catalyst Enhanced by Organic PPh₃ Ligand**



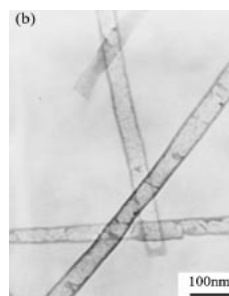
Hejun Zhu, Yunjie Ding, Li Yan, Yuan Lu, Can Li, Xinhe Bao, and Liwu Lin

632 **A Highly Effective and Practical Biaryl Synthesis with Triallyl(aryl)silanes and Aryl Chlorides**



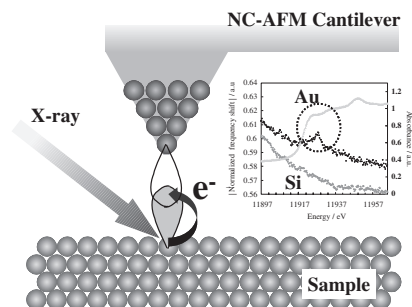
Akhila K. Sahoo, Yoshiaki Nakao, and Tamejiro Hiyama

634 **A New Approach to Fabricate Sulfur Nanotubes**



Chong Jia, Weifeng Liu, Chuangui Jin, Bei Zhang, Lianzeng Yao, Weili Cai, and Xiaoguang Li

636 **A Possibility of XANAM (X-ray Aided Non-contact Atomic Force Microscopy)**



Shushi Suzuki, Yuichiro Koike, Keisuke Fujikawa, Wang-Jae Chun, Masaharu Nomura, and Kiyotaka Asakura