

# Chemistry Letters

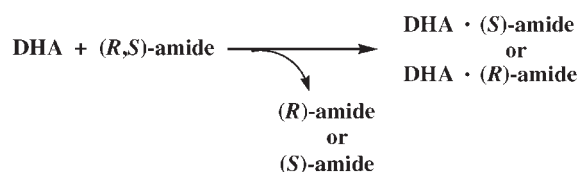
<http://www.csj.jp/journals/chem-lett/>

Vol.32 No.3  
March, 2003

CMLTAG  
ISSN 0366-7022

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- 206 **Optical Resolution of Cyclic Amides by Inclusion in Dehydrocholic Acid**



DHA = dehydrocholic acid

Olga Bortolini, Marco Fogagnolo, Giancarlo Fantin, and Alessandro Medici

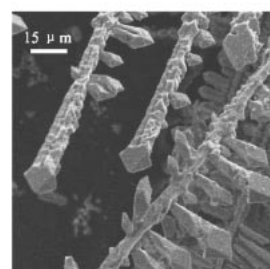
- 208 **Simple Preparation Method of Isolated Iron (III) Species on Silica Surface**



Yusuke Yamada, Yuichi Ichihashi, Hisanori Ando, Atsushi Ueda, Hiroshi Shioyama, and Tetsuhiko Kobayashi

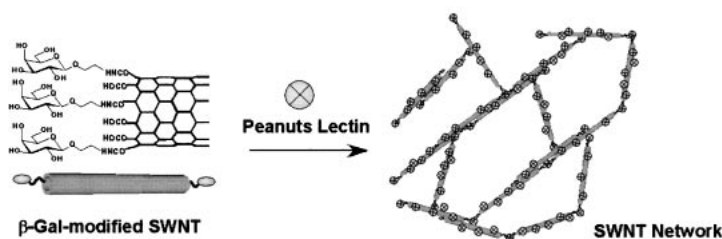
- 210 **Synthesis of Silver Selenide Dendritic Crystals via Glycothermal Route**

Millimeter scale dendritic crystals of silver selenide with pyramid-like leaf-tips have been fabricated by a glycothermal reaction.



Guozhen Shen, Di Chen, Kaibin Tang, Xuan Jiang, and Yitai Qian

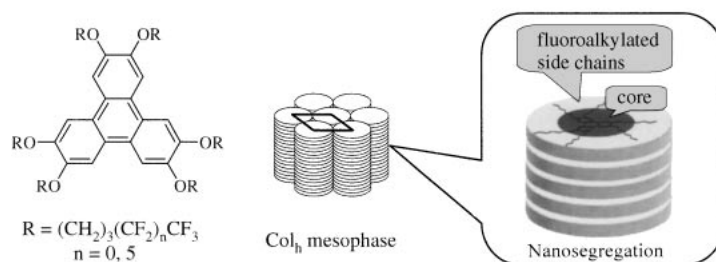
- 212 **Lectin-mediated Supramolecular Junctions of Galactose-derivatized Single-walled Carbon Nanotubes**



Kazunori Matsuura, Kentaro Hayashi, and Nobuo Kimizuka

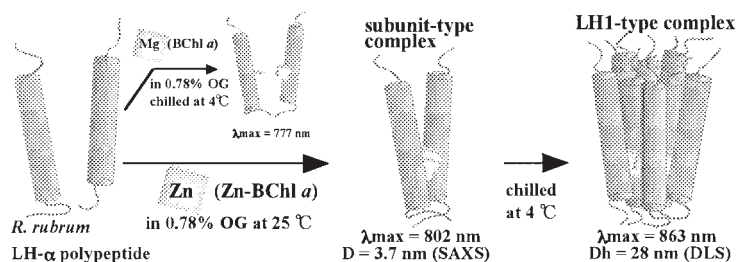
- 214 **Fluorination Effect of the Peripheral Chains on the Mesomorphic Properties in Discotic Liquid Crystals of Hexasubstituted Triphenylene**

Naohiro Terasawa, Hirosato Monobe, Kenji Kiyohara, and Yo Shimizu



- 216 **Construction of Photosynthetic Antenna Complex Using Light-harvesting Polypeptide- $\alpha$  from Photosynthetic Bacteria, *R. rubrum* with Zinc Substituted Bacteriochlorophyll *a***

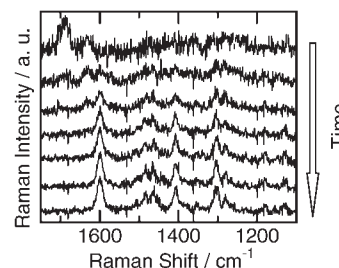
Morio Nagata, Mamoru Nango, Ayumi Kashiwada, Shuhei Yamada, Seiji Ito, Naoko Sawa, Makiko Ogawa, Kouji Iida, Yukihiisa Kurono, and Toshiaki Ohtsuka



- 218 **Measurement of Complexation Rate of Palladium(II) with Pyridylazo Ligand at the Heptane- Water Interface by Centrifugal Liquid Membrane-resonance Raman Microprobe Spectroscopy**

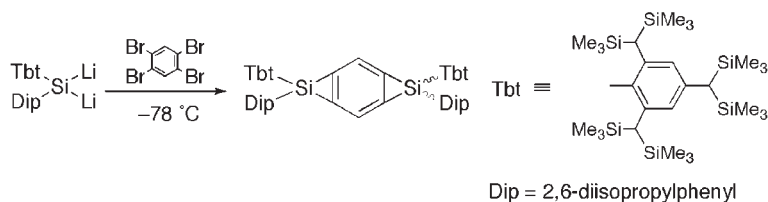
Akira Ohashi and Hitoshi Watarai

The complexation kinetics of Pd(II) with 5-Br-PADAP at the heptane-water was investigated by resonance Raman spectroscopy combined with a centrifugal liquid membrane method. This method allowed us to measure the resonance Raman spectral change in the course of the formation of Pd(II)–5-Br-PADAP complex at the heptane-water interface.



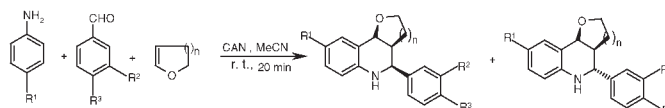
- 220 **The First Examples of Stable Benzenes Fused with Two Three-membered Rings: Synthesis and Structures of the Two Stereoisomers of Bis(silacyclopropane)benzenes**

Tomoyuki Tajima, Ken Hatano, Takayo Sasaki, Takahiro Sasamori, Nobuhiro Takeda, and Norihiro Tokitoh

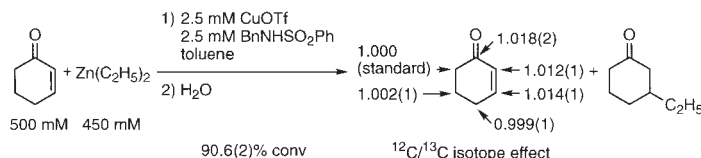


- 222 **A Facile and Convenient Three-component Coupling Protocol for the Synthesis of Pyrano and Furoquinolines**

N. Ravindranath, C. Ramesh, M. Ravinder Reddy, and Biswanath Das

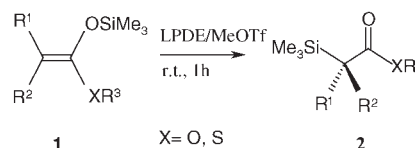


- 224 **1,4-Addition of Diethylzinc to Cyclohexenone Catalyzed by CuOTf-Sulfonamide Combined System. Evidence Supporting a Concerted Mechanism**



Keiji Nakano, Yuhki Bessho, and Masato Kitamura

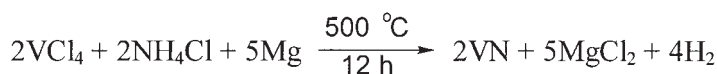
- 226 **Lithium Perchlorate Diethyl Ether/Methyl Triflate Catalyzed Transfer of Silicon from Oxygen to Carbon in Silyl Ketene (Thio) Acetals**



Akbar Heydari and Reza Alijanianzadeh

- 228 **A Thermal Reduction-Nitridation Synthesis and Ultraviolet-light Emission of Nanocrystalline VN**

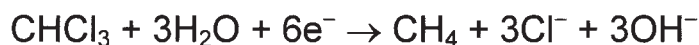
Vanadium nitride nanocrystallites have been synthesized through a low-temperature reduction-nitridation method.



Xiaogang Yang, Cun Li, Yan Yan, Yitai Qian, Yunbo Jia, and Houbo Zhang

- 230 **Electrochemical Dechlorination of Chlorinated Hydrocarbons – Electrochemical Reduction of Chloroform in Acetonitrile/Water Mixtures at High Current Density**

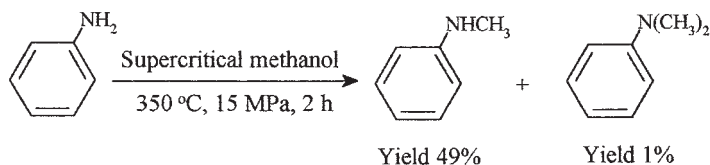
Chloroform is electrochemically dechlorinated at an Ag electrode in acetonitrile containing 1 M H<sub>2</sub>O at the current density higher than 0.3 A cm<sup>-2</sup>.



Yoshio Hori, Kazumi Murata, and Takayoshi Oku

- 232 **Alkylation and Acetal Formation Using Supercritical Alcohol without Catalyst**

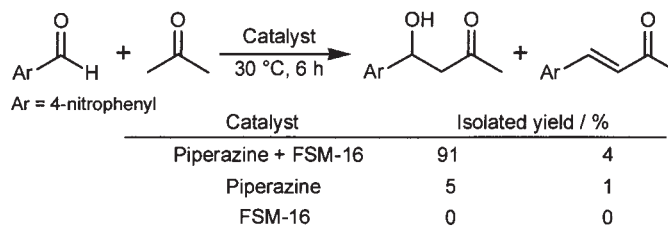
Selective *N*-methylation to monomethylated compound proceeding rapidly without any catalyst.



Yoshiteru Horikawa, Yuki Uchino, and Takeshi Sako

234 **Enhanced Effect of Mesoporous Silica on Base-Catalyzed Aldol Reaction**

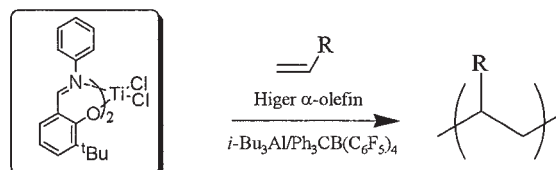
Yoshihiro Kubota, Kunio Goto, Shintaro Miyata, Yasutomo Goto, Yoshiaki Fukushima, and Yoshihiro Sugi



236 **Higher  $\alpha$ -Olefin Polymerization Behavior of a Bis(Phenoxy-Imine)Titanium Complex/ $i$ -Bu<sub>3</sub>Al/Ph<sub>3</sub>CB(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub> Catalyst System**

Junji Saito, Yasuhiko Suzuki, and Terunori Fujita

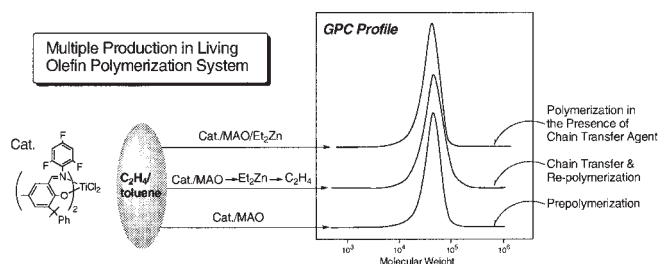
Higher  $\alpha$ -olefin polymerization by using titanium complex having phenoxy-imine chelate ligands



Activity order: 4-methyl-1-pentene > 1-decene > 1-octene > 1-hexene

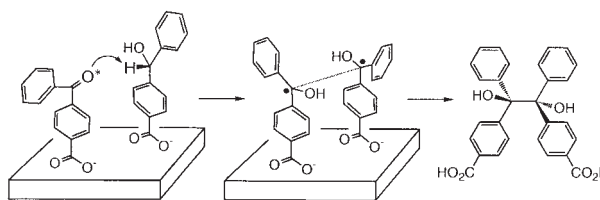
238 **Combination System of Fluorine-containing Phenoxy-imine Ti Complex and Chain Transfer Agent: A New Methodology for Multiple Production of Monodisperse Polymers**

Makoto Mitani, Jun-ichi Mohri, Rieko Furuyama, Seiichi Ishii, and Terunori Fujita



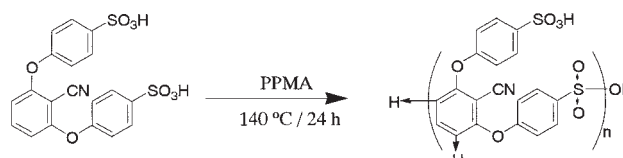
240 **Enantioselective Photopinacolization of Benzophenone and Benzhydrol Intercalated in Mg-Al LDH Interlayers**

Tetsuya Shichi, Yukiko Minamikawa, Naoto Yasuda, Naoya Yamada, Yoshio Okamoto, and Katsuhiko Takagi



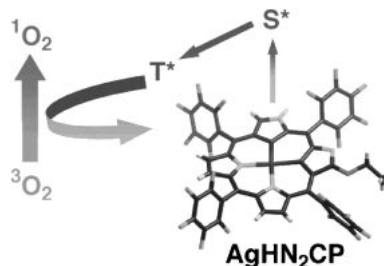
242 **Preparation of Hyperbranched Aromatic Poly(ethersulfone)s Possessing Sulfonic Acid Terminal Groups for Polymer Electrolyte**

Masaki Takeuchi, Mitsutoshi Jikei, and Masa-aki Kakimoto



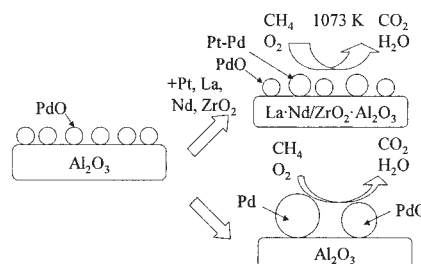
244 **Doubly N-Confused Porphyrins as Efficient Sensitizers for Singlet Oxygen Generation**

Koiti Araki, Fábio M. Engelmann, Idemar Mayer, Henrique E. Toma, Mauricio S. Baptista, Hiromitsu Maeda, Atsuhiko Osuka, and Hiroyuki Furuta

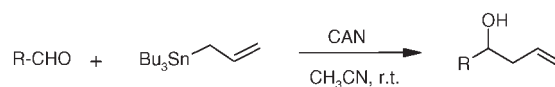
246 **Effect of Addition of Pt, La<sub>2</sub>O<sub>3</sub>, Nd<sub>2</sub>O<sub>3</sub> and ZrO<sub>2</sub> to PdO/Al<sub>2</sub>O<sub>3</sub> on Catalytic Combustion of Methane**

Yasushi Ozawa, Yoshihisa Tochihara, Ayako Watanabe, Masatoshi Nagai, and Shinzo Omi

The addition of Pt, La, Nd and ZrO<sub>2</sub> prevents the deactivation of the PdO/Al<sub>2</sub>O<sub>3</sub> during CH<sub>4</sub> combustion at 1073 K because of prevention of the particle growth of PdO.

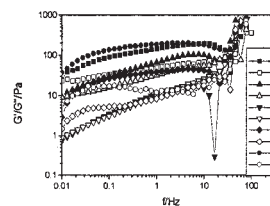
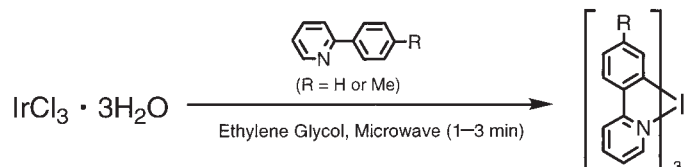
248 **Ceric(IV) Ammonium Nitrate: A Novel Reagent for the Synthesis of Homoallyl Alcohols**

J. S. Yadav, B. V. S. Reddy, A. D. Krishna, K. Sadasiv, and Ch. Janardhana Chary

250 **Studies on Synthesis of MMH and Rheological Properties of Concentrated MMH Dispersions**

Peizhi Guo, Dejun Sun, Jie Zhang, and Chunguang Zhang

Frequency sweep curves of dispersions of 26% MMH and different salt concentrations. Salt concentrations are 0 (a), 10<sup>-4</sup> M (b), 10<sup>-3</sup> M (c), 5 × 10<sup>-3</sup> M (d), 10<sup>-2</sup> M (e). Full symbols: G', and open symbols: G''

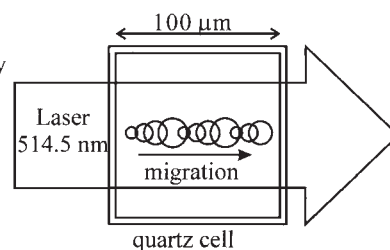
252 **Selective One-pot Synthesis of Facial Tris-ortho-metalated Iridium(III) Complexes Using Microwave Irradiation**

Hideo Konno and Yoshiyuki Sasaki

254 **Periodic Expansion-contraction Motion of Photoabsorbing Organic Droplets during Laser Photophoretic Migration in Water**

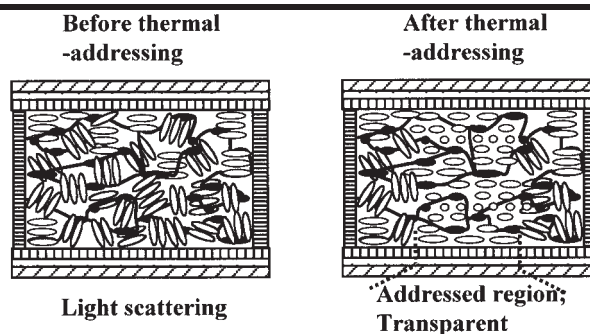
Hideaki Monjushiro, Makiko Tanaka, and Hitoshi Watarai

Micrometer-sized organic droplets with high absorptivity repeated expansion and contraction during laser photophoretic migration. The frequency of the motion was proportional to the absorptivity of the droplet.



256 **Study on Thermal-addressing Characteristics of (Polymer Network/Liquid Crystals/Chiral Dopant) Composite**

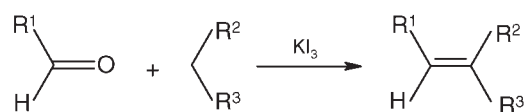
Huai Yang, Hirotsugu Kikuchi, and Tisato Kajiyama



258 **Potassium Triiodide. A New and Efficient Catalyst for Carbon–Carbon Bond Formation in Aqueous Media**

Ashim J. Thakur, Dipak Prajapati, Baikuntha J. Gogoi, and Jagir S. Sandhu

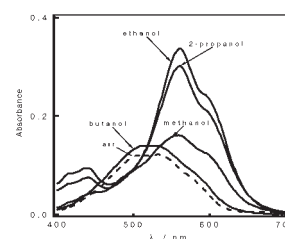
Potassium triiodide catalyses the condensation of carbonyl compounds with active methylene compounds in aqueous media to afford *E* olefinic products in high yields.



260 **Vapochromic Properties of Nafion Film Doped with Cationic Dyes**

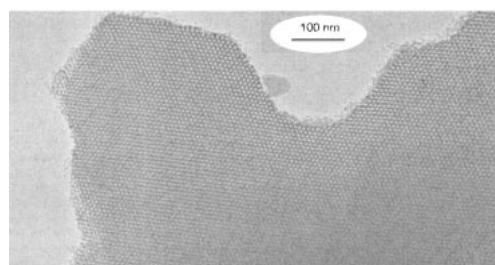
Ryoka Matsushima, Naoko Nishimura, and Yoshiumi Kohno

Protonated Nafion thin film doped with cationic dyes such as flavylum and thionine revealed rapid and vapor-specific color changes with good reversibility, upon exposure to volatile organic compounds.



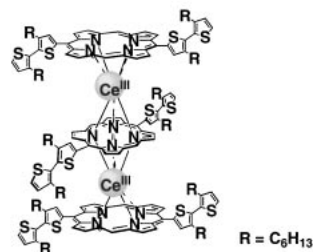
262 **Organised Mesoporous Silica Synthesised by Nanoscale Duplication of an Ordered Mesoporous Carbon Material Using a Gas Phase Process**

J. Parmentier, C. Vix-Guterl, S. Saadallah, M. Reda, M. Iliescu, J. Werckmann, and J. Patarin



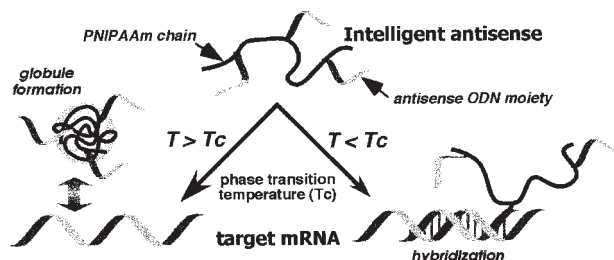
264 **Electropolymerization of Bithienyl-appended Cerium(III) Triple Decker Porphyrin Complex**

Kousei Yamashita, Masato Ikeda, Masayuki Takeuchi, and Seiji Shinkai



266 **Thermo responsive DNA/Polymer Conjugate for Intelligent Antisense Strategy**

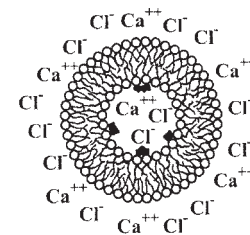
Masaharu Murata, Wataru Kaku, Takahisa Anada, Nobuaki Soh, Yoshiki Katayama, and Mizuo Maeda



268 **Crystallization of Calcium Oxalate in Liposome Solutions of Different Carboxylates**

Jian-Ming Ouyang, Li Duan, Jian-Hua He, Bernd Tieke

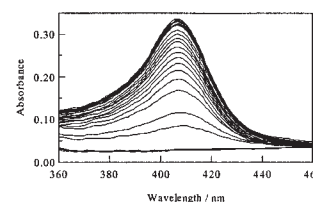
The effects of tri-, di-, and monocarboxylates on the growth of nanoparticles of calcium oxalate (CaOxa) were first investigated in liposome systems. The morphology and phase compositions of CaOxa crystals were mediated by the molecular arrays on the surfaces of liposome. The promotion effectiveness to COD decreased in this order:  $Na_3cit > Na_2tart > NaAc$ .



270 **Study of Initial Adsorption Process of Hemoglobin to Glass Surface by Using Time-Resolved Slab Optical Waveguide(SOWG) Spectroscopy**

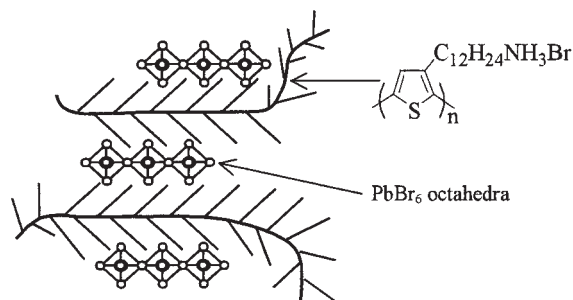
Takamitsu Yoshida, Hajime Asano, Jose H. Santos, Zhi-Mei Qi, Li-Xian Sun, Akiko Takatsu, Kenji Kato, and Naoki Matsuda

A slab optical waveguide (SOWG) has been used to study the initial adsorption process of hemoglobin onto glass based on time-resolved absorption measurement.



272 **Formation of PbBr-Based Layered Perovskite Structure Having Poly(thiophene) as an Organic Layer by Soaking Thin Film of Hydrogen Bromide Salt of Poly(3-amino-dodecylthiophene) in Aqueous Lead Bromide Solution**

Masanao Era

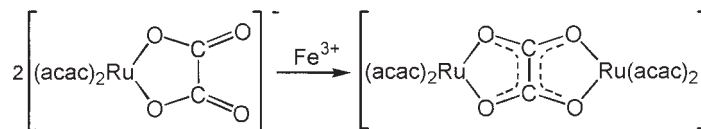




274 **Synthesis and Spectroelectrochemical Characterization of a Novel Oxalate-Bridged Binuclear Ruthenium(III) Complex**

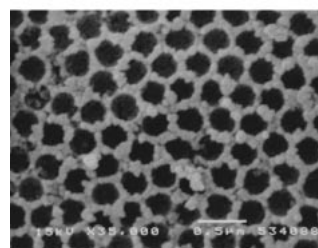
Taku Fujino, Yoshimasa Hoshino, Motoki Eto, Yasuhiko Yukawa, Jan Fiedler, and Wolfgang Kaim

An oxalate-bridged diruthenium(III) complex has been synthesized via self-dimerization reaction. The  $\text{Ru}_2^{\text{III,II}}$  mixed-valence species with  $K_c = 10^{5.0}$  exhibits a weak IVCT band at 1430 nm. The IR spectra from spectroelectrochemistry indicate a partially localized mixed-valence state.



276 **Fabrication of Ordered Macroporous Structures Based on Hetero-Coagulation Process Using Nanoparticle as Building Blocks**

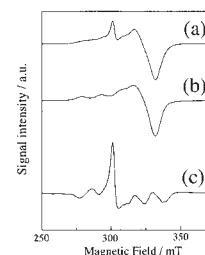
Fengqiu Tang, Hiroshi Fudouzi, Tetsuo Uchikoshi, Toru Awane, and Yoshio Sakka



278 **Unprecedented Soliton Formation Mechanism in Quasi-One-Dimensional Chloro-Bridged  $\text{Pt}^{\text{II}}$ - $\text{Pt}^{\text{IV}}$  Mixed-Valence Compound,  $\{[\text{Pt}(\text{en})_2][\text{PtCl}_2(\text{en})_2]\}_3(\text{CuCl}_4)_4 \cdot 12\text{H}_2\text{O}$**

Masahiro Yamashita, Hidemitsu Aso, Satoshi Matsunaga, Koichi Takizawa, Kazuya Nakata, Chihiro Kachi-Terajima, Fumiyasu Iwahori, Tomohiko Ishii, Hitoshi Miyasaka, Ken-ichi Sugiura, Takuya Kawashima, Kenzi Takai, Noritaka Kuroda, Motoo Shiro, Hideo Kishida, Hiroshi Okamoto, Hiroyuki Takahashi, Hisaaki Tanaka, Kazuhiro Marumoto, and Shin-ichi Kuroda

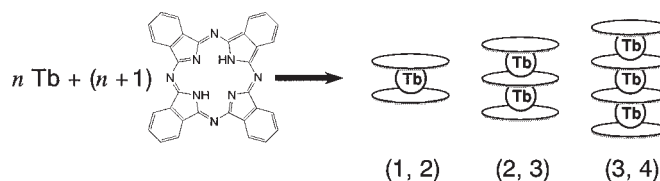
A new type of complex consisting of double linear-chain structure  $\{[\text{Pt}(\text{en})_2][\text{PtCl}_2(\text{en})_2]\}_3(\text{CuCl}_4)_4 \cdot 12\text{H}_2\text{O}$  was synthesized. High concentration (ca. 200 times larger than the literature) of neutral soliton ( $\text{Pt}^{\text{III}}$  component) formation was found.



280 **The Electronic Structures of Terbium-Phthalocyanine Sandwich Clusters**

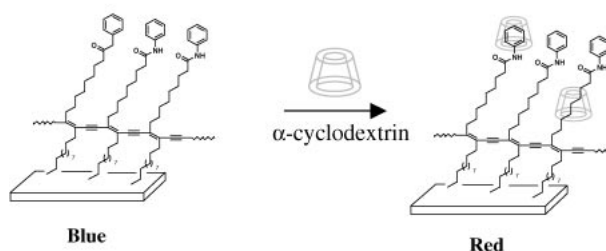
Ken Miyajima, Eiji Okada, Atsushi Nakajima, and Koji Kaya

Multiple-decker  $\text{Tb}_n(\text{pc})_{n+1}$  Sandwich Clusters



282 **Cyclodextrin-induced Color Changes in Polymerized Diacetylene Langmuir-Schaefer Films**

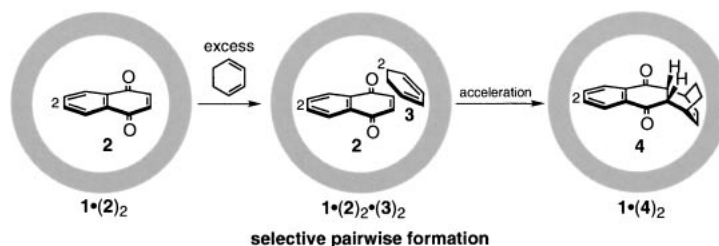
Jae-Taek Cho, Sung-Min Woo, Dong June Ahn, Kwang-Duk Ahn, Haiwon Lee, and Jong-Man Kim





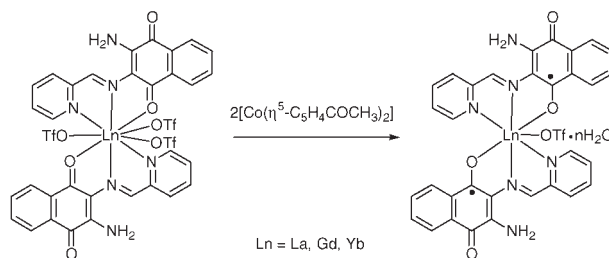
- 284 **Remarkable Acceleration of Diels–Alder Reactions in a Self-Assembled Coordination Cage**

Takahihiro Kusakawa, Tatsuya Nakai, Takashi Okano, and Makoto Fujita



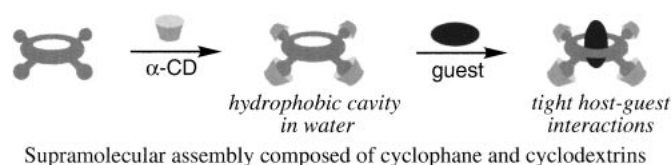
- 286 **Synthesis of Novel Lanthanide Complexes with Quinone-containing Ligands and Their Redox Controlled Magnetic Interaction**

Takuya Nankawa, Masayuki Watanabe, Masaki Murata, and Hiroshi Nishihara



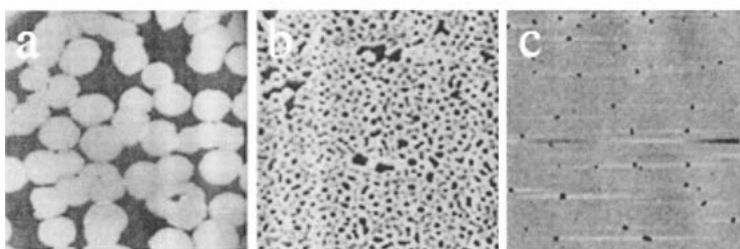
- 288 **Molecular Recognition by Supramolecular Hosts Composed of an Adamantyl-appended Macrocyclic with Cyclodextrins in Water**

Osamu Hayashida and Itaru Hamachi



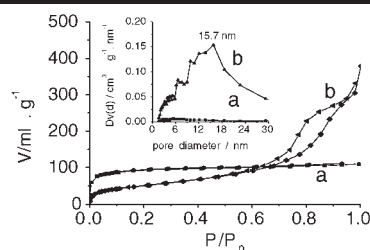
- 290 **Nanofrictional Properties of Dendron Langmuir–Blodgett Films**

Sai-Long Xu, Shi-Zhao Kang, Guo-Jun Deng, Peng Wu, Qing-Hua Fan, Chen Wang, Li-Jun Wan, and Chun-Li Bai



- 292 **Synthesis of Surfactant-assisted Microporous Layered Tin Phenylphosphonate**

Nawal K. Mal, Masahiro Fujiwara, Yusuke Yamada, and Masahiko Matsukata

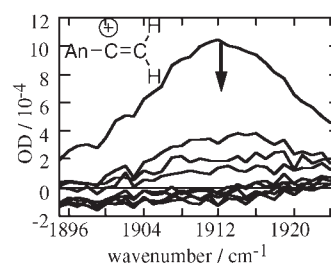


N<sub>2</sub> adsorption-desorption isotherms of (a) microporous sample 1 prepared using surfactant and (b) mesoporous sample 3 prepared in the presence of concentrated HF (Inset: pore size distributions curve).

294 **Study of the Time-resolved IR Spectrum of  $\alpha$ -Arylvinyl Cations Generated by Laser Flash Photolysis**

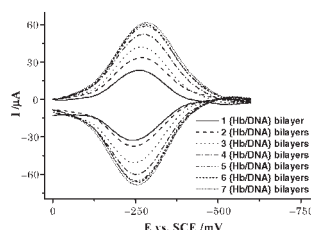
Masashi Kotani, Shinjiro Kobayashi, Masaaki Mishima, and Yuji Hori

The characteristic stretching band of  $C(sp^2)=C(sp)^+$  in vinyl cation was observed by a time-resolved IR spectrometer with laser flash irradiation of (4-methoxyphenyl)alkynes in TFE and  $\alpha$ -arylvinyl bromide in acetonitrile. The absorption maxima are affected by the  $\beta$ -substituents.



296 **Fabrication of Ultrathin, Protein-containing Films by Layer-by-Layer Assembly and Electrochemical Characterization of Hemoglobin Entrapped in the Film**

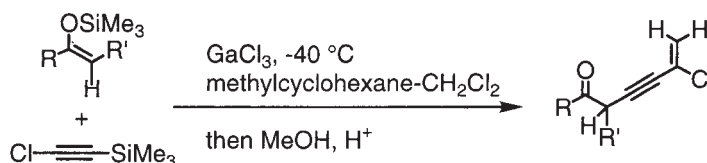
Libin Shang, Xinjian Liu, Jun Zhong, Chunhai Fan, Iwao Suzuki, and Genxi Li



Multilayer films were assembled on pyrolytic graphite electrode surface by alternating deposition of hemoglobin and DNA. These films are stable during electrochemical experiments and sensitive for electrocatalytic reduction of nitric oxide.

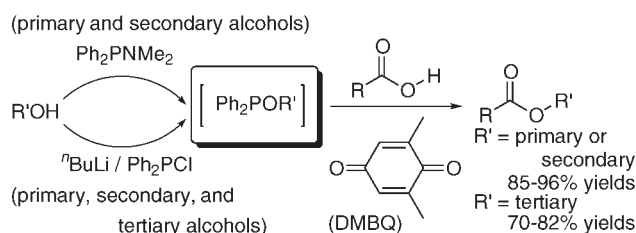
298 **Sequential Carbometallation/Elimination Reaction Takes Place between Gallium Enolate and Chloroethyne**

Ryo Amemiya, Akiko Fujii, Mieko Arisawa, and Masahiko Yamaguchi



300 **Preparation of Various Carboxylic Acid Esters from Bulky Alcohols and Carboxylic Acids by a New Type Oxidation-reduction Condensation Using 2,6-Dimethyl-1,4-benzoquinone**

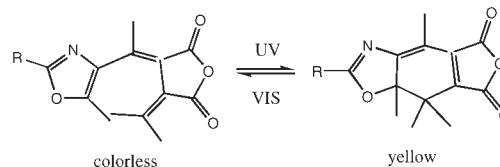
Teruaki Mukaiyama, Wataru Kikuchi, and Taichi Shintou



302 **Oxazolylfulgides as Yellow Photochromic Dyes**

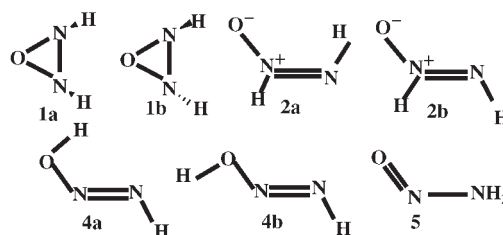
Ryoka Matsushima, Hiroyuki Morikane, and Yoshiumi Kohno

Substituted oxazolylfulgides exhibit favorable features as photochromic yellow dyes with fairly good thermal stability and photo-reversibility and moderate quantum yields.



304 **Green High Energy Density Material,  $N_2H_2O$** 

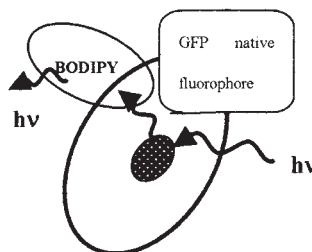
We proposed a new concept "green high energy density material " (HEDM) and designed seven  $N_2H_2O$  isomers.



Yi-hong Ding and Satoshi Inagaki

306 **Intramolecular Fluorescent Resonance Energy Transfer (FRET) by BODIPY Chemical Modification of Cysteine-engineered Mutants of Green Fluorescent Protein**

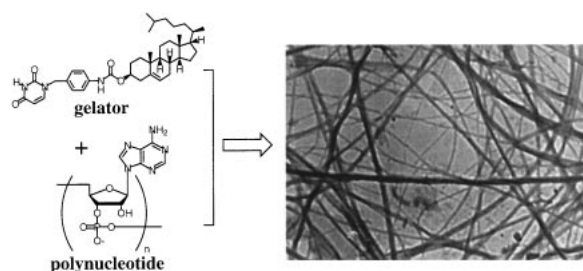
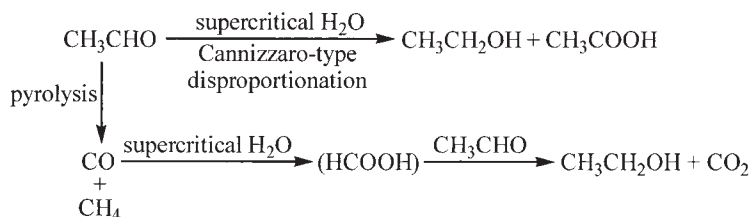
Miho Suzuki, Yoichiro Ito, Hannah Elizabeth Savage, Yuzuru Husimi, and Kenneth T. Douglas



Green Fluorescent Protein with a newly engineered cysteine residue, undergoes BODIPY 507/545 labelling at a defined distance from the native fluorophore, leading to efficient intramolecular FRET.

308 **Polynucleotide Can Stabilize Nucleobase-appended Cholesterol Gels**

Munenori Numata and Seiji Shinkai

310 **Noncatalytic Cannizzaro-type Reaction of Acetaldehyde in Supercritical Water**

Yasuharu Nagai, Chihiro Wakai, Nobuyuki Matubayasi, and Masaru Nakahara

Noncatalytic reaction pathway of acetaldehyde in supercritical water.

**Additions and Corrections**312 **Direct Determination of Chlortetracycline by a Fluorescent Microscopic Ring-like Deposit Technique**

Yuan Fang Li and Cheng Zhi Huang