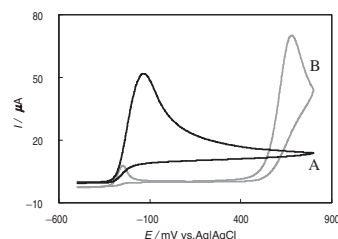


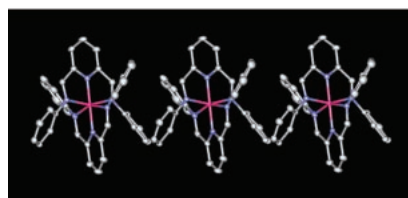
- 880 **Diaphorase/Naphthoquinone Derivative-modified Electrode as an Anode for Diffusion-controlled Oxidation of NADH in Electrochemical Cells**

Cyclic voltammograms of NADH (10 mM) at (A) a DI/ACNQ-modified electrode and (B) an ACNQ-modified electrode at $\nu = 20 \text{ mV s}^{-1}$ (pH 8.0).



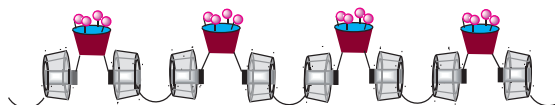
Atsushi Sato, Kenji Kano, and Tokuji Ikeda

- 882 **[Co^{II}(phimpy)₂](ClO₄)₂ and [Co^{II}(ipimpy)₂](ClO₄)₂: New Cobalt(II) Spin Crossover Compounds, and the Role of the Ligand Flexibility in Spin Transition Behavior**



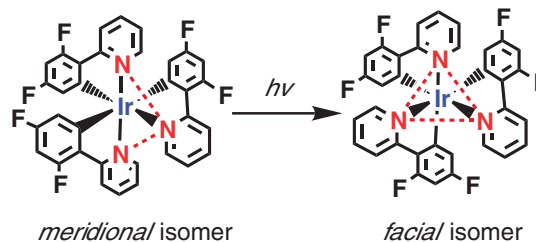
Gergely Juhász, Shinya Hayami, Katsuya Inoue, and Yonezo Maeda

- 884 **Compactness of Linear Aggregation Controlled by Molecular Selective Binding of Bridged Bis(β -cyclodextrin)s**

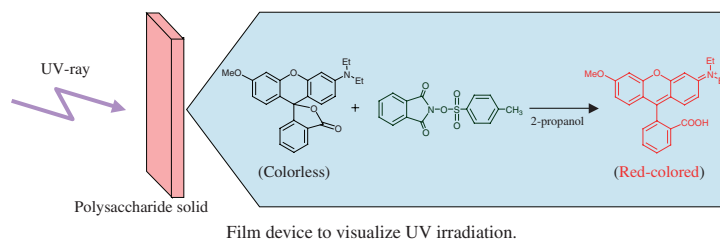


Yu Liu, Hao Wang, Heng-Yi Zhang, Li-Hua Wang, and Yun Song

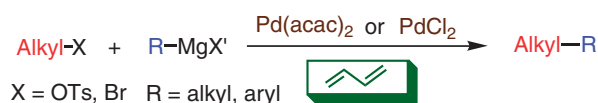
- 886 **Photochemical *mer* → *fac* One-way Isomerization of Phosphorescent Material. Studies by Time-resolved Spectroscopy for Tris[2-(4',6'-difluorophenyl)pyridine]iridium(III) in Solution**



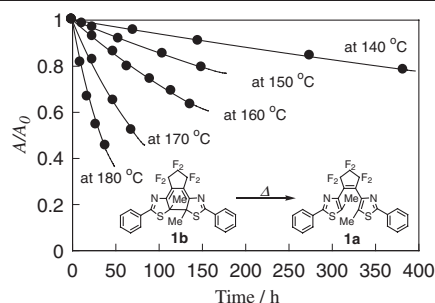
Takashi Karatsu, Takeshi Nakamura, Shiki Yagai, Akihide Kitamura, Kentaro Yamaguchi, Yoshimasa Matsushima, Takeshi Iwata, Yoji Hori, and Toshimitsu Hagiwara

888 **Solid Film Device to Visualize UV-Irradiation**

Yuuki Kaburagi, Sumio Tokita, and Masao Kaneko

890 **Pd-Catalyzed Cross-Coupling Reaction of Alkyl Tosylates and Bromides with Grignard Reagents in the Presence of 1,3-Butadiene**

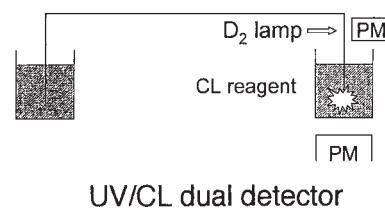
Jun Terao, Yoshitaka Naitoh, Hitoshi Kuniyasu, and Nobuaki Kambe

892 **Extraordinarily High Thermal Stability of the Closed-ring Isomer of 1,2-Bis(5-methyl-2-phenylthiazol-4-yl)perfluorocyclopentene**

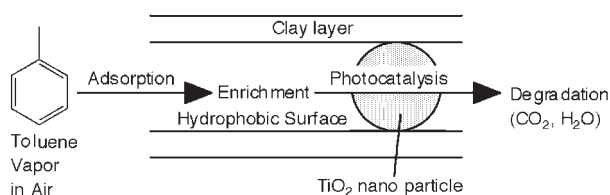
Shizuka Takami, Seiya Kobatake, Tsuyoshi Kawai, and Masahiro Irie

894 **Analytical Performance of Capillary Electrophoretic System with UV/CL or FL/CL Dual Detector**

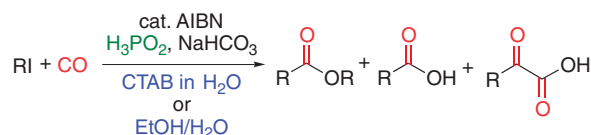
Novel CE system with UV/CL or FL/CL dual detector was successfully demonstrated. Sample was, first, analyzed by UV or FL detection with on-capillary, followed by CL detection with end-capillary.



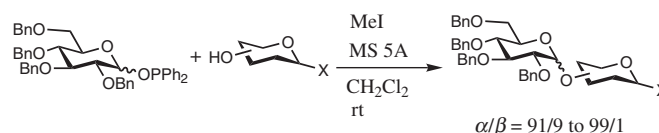
Kazuhiko Tsukagoshi, Kaori Sawanoi, Masayuki Kamekawa, and Riichiro Nakajima

896 **Adsorption and Photocatalytic Degradation of Toluene Vapor in Air on Highly Hydrophobic TiO₂ Pillared Clay**

Chihiro Ooka, Hisao Yoshida, Kenzi Suzuki, and Tadashi Hattori

898 **Radical-mediated Carbonylation of Alkyl Iodides in Aqueous Media**

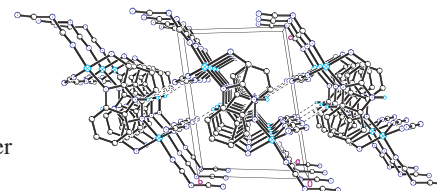
Masaharu Sugiura, Hiroyuki Hagio, and Shū Kobayashi

900 **A New Method for α -Selective Glycosylation Using a Donor, Glycosyl Methylphenylphosphonium Iodide, without Any Assistance of Acid Promoters**

Teruaki Mukaiyama, Yohei Kobashi, and Taichi Shintou

902 **Origin of Ferromagnetic Coupling in a Dicyanamide-bridged One-dimensional Cu(II) Complex**

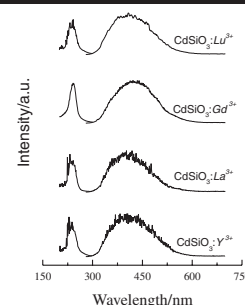
On the basis of the structural information, the ferromagnetic nature of the dicyanamide-bridged 1D chain complex has been assigned to be due to the π - π contacts rather than the μ -1,5 dca bridges.



Hui-Zhong Kou and Yi He

904 **Novel Indigo Light Emitting Long-lasting Phosphors $\text{CdSiO}_3 \cdot \text{RE}^{3+}$ (RE = Y, La, Gd, Lu)**

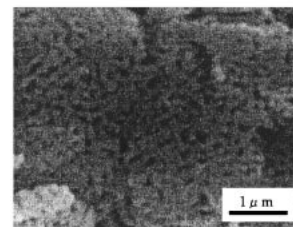
A series of novel indigo light emitting long-lasting phosphors $\text{CdSiO}_3 \cdot \text{RE}^{3+}$ (RE = Y, La, Gd, Lu) was prepared by high-temperature solid-state method. Photoluminescence (PL) spectra showed that the maximum value of their emission wavelength was located at about 420 nm. These phosphors emitted indigo light and showed long-lasting phosphorescence lasting for more than 30 min.



Bingfu Lei, Yingliang Liu, Zeren Ye, and Chunshan Shi

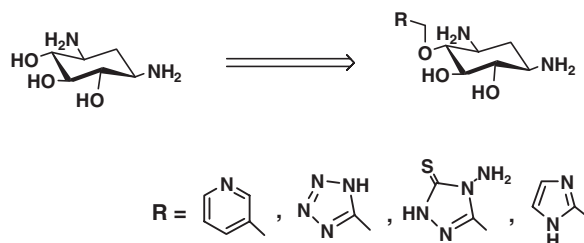
906 **Preparation of Heteronuclear $\text{La}_2\text{Cu}(\text{C}_4\text{O}_4)_4(\text{H}_2\text{O})_{16} \cdot 2\text{H}_2\text{O}$ Complex and its Thermal Decomposition into Single Phase La_2CuO_4**

A heteronuclear complex, $\text{La}_2\text{Cu}(\text{C}_4\text{O}_4)_4(\text{H}_2\text{O})_{16} \cdot 2\text{H}_2\text{O}$, was synthesized and its thermal decomposition products were studied. Results of chemical analysis and TGA agreed with theoretical values for the $\text{La}_2\text{Cu}(\text{C}_4\text{O}_4)_4(\text{H}_2\text{O})_{16} \cdot 2\text{H}_2\text{O}$ complex. The La_2CuO_4 single phase having ca. 100 nm in crystal size was obtained by the thermal decomposition at 700 °C for 1 h.



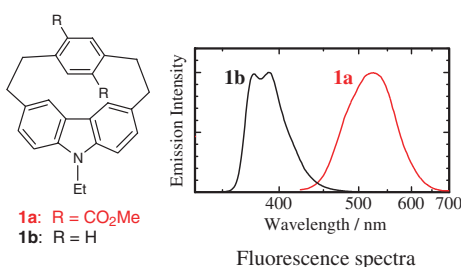
Youichi Shimamoto, Hiromichi Aono, Nobuyuki Kondo, Masato Kurihara, Masatomi Sakamoto, and Yoshihiko Sadaoka

- 908 **Efficient Synthesis of Heterocyclic 2-Deoxy-septamine Derivatives as RNA Binding Ligands**



Yili Ding, Steven A. Hofstadler, Eric E. Swayze, and Richard H. Griffey

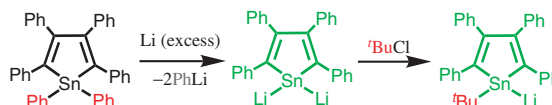
- 910 **Synthesis and Properties of Carbazole-Terephthalate Cyclophane**



1a exhibited intramolecular exciplex emission in THF.

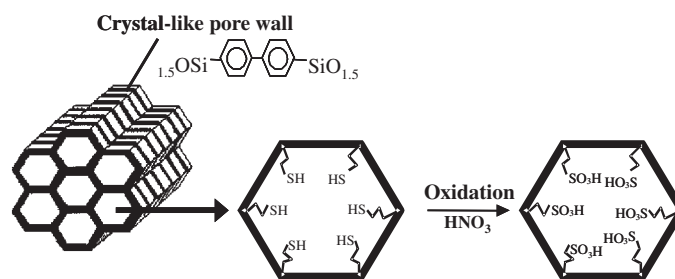
Keita Tani, Koh Matsumura, Eiichi Togo, Kazushige Hori, Yasuo Tohda, Hiroyuki Takemura, Hideo Ohkita, Shinzaburo Ito, and Masahide Yamamoto

- 912 **Synthesis of Stannole Anion by Alkylation of Stannole Dianion**



Masaichi Saito, Ryuta Haga, and Michikazu Yoshioka

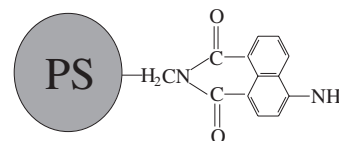
- 914 **Biphenylene Bridged Bifunctional Hybrid Mesoporous Silsesquioxanes with Sulfonic Acid Functionalities and Crystalline Pore Walls**



Mahendra P. Kapoor, Qihua Yang, Yasutomo Goto, and Shinji Inagaki

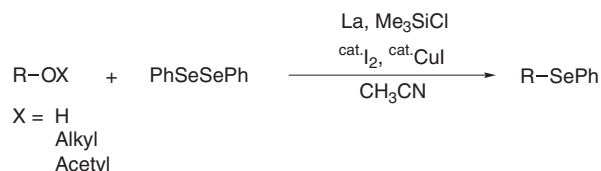
- 916 **Water-soluble Fluorescent Nanospheres as Fluorosensor for Detection of Cu^{2+}**

A novel water-soluble fluorescent nanosphere as fluorosensor was prepared by emulsifier-free emulsion copolymerization of styrene with naphthalimide derivative. The fluorosensor was highly sensitive for detection of Cu^{2+} . Moreover, it can be used repeatedly.



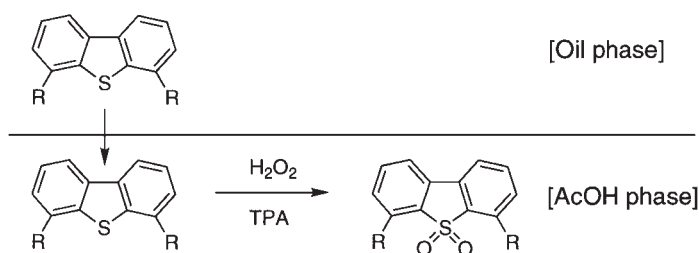
Shiyi Xu, Guoli Tu, and Xiaozu Han

- 918 **A Facile Method for Synthesis of Alkyl Phenyl Selenides. The Reaction of Diphenyl Diselenide with Oxygen-containing Compounds Using La/Me₃SiCl/cat. I₂/cat. CuI System**



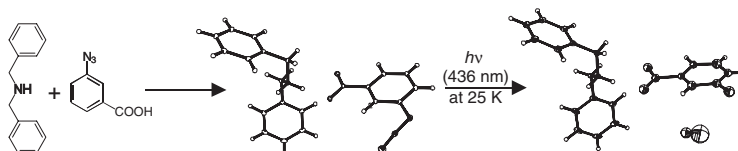
Toshiki Nishino, Yutaka Nishiyama, and Noboru Sonoda

- 920 **Tungstophosphoric Acid-catalyzed Oxidative Desulfurization of Light Oil with Hydrogen Peroxide in a Light Oil/Acetic Acid Biphasic System**



Kazumasa Yazu, Takeshi Furuya, Keiji Miki, and Koji Ukegawa

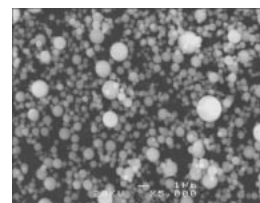
- 922 **Structure Analysis of Photo-induced Triplet Phenylnitrene Using Synchrotron Radiation**



Masaki Kawano, Terufumi Takayama, Hidehiro Uekusa, Yuji Ohashi, Yoshiki Ozawa, Koudatsu Matsubara, Hidekazu Imabayashi, Minoru Mitsumi, and Koshiro Toriumi

- 924 **Preparation of CO₂ Absorbent by Spray Pyrolysis**

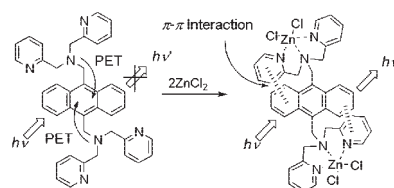
High performance CO₂ absorbent, Li₂ZrO₃ was successfully prepared by spray pyrolysis, which showed much higher CO₂ absorption capacity because of rather small and uniform spherical particles.



Ki-Hyoun Choi, Yozo Korai, and Isao Mochida

- 926 **Crystal Structures of 9,10-Bis[bis(2-pyridylmethyl)aminomethyl]anthracene and Its ZnCl₂ Complex. Intramolecular π - π Interaction between Anthracene and ZnCl₂-complexed Pyridine**

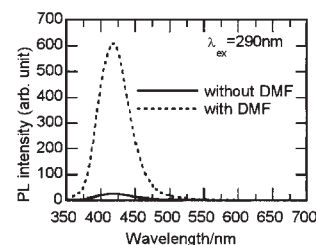
PET sensors having anthracene and two dipicolylaminomethyl groups form 1:2 complex with ZnCl₂. Intramolecular π - π interactions between the anthracene and the ZnCl₂-complexed pyridine were observed.



Kanji Kubo and Akira Mori

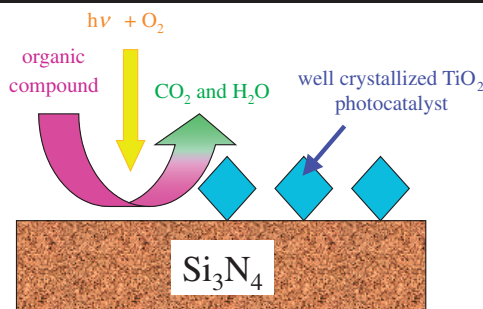
- 928 **Porous Phosphor Thin Films of Oxyfluoride $\text{SiO}_2\text{-BaMgF}_4\text{:Eu}^{2+}$ Glass-Ceramics Prepared by Sol-Gel Method**

The addition of *N,N*-dimethylformamide (DMF) in the sol-gel processing of Eu^{2+} -doped oxyfluoride glass-ceramic thin films was effective to produce porous microstructure and enhance blue photoluminescence.



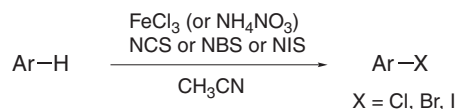
Shinobu Fujihara, Seiki Kitta, and Toshio Kimura

- 930 **Photocatalytic Degradation of 2-Propanol Diluted in Water with TiO_2 Photocatalyst Loaded on Si_3N_4**



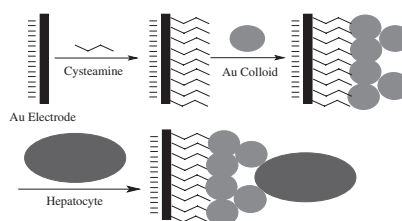
Hiromi Yamashita, Kazuhiro Maekawa, Yoshihiro Nakatani, Jin-Joo Park, and Masakazu Anpo

- 932 **Halogenation of Aromatic Compounds by *N*-chloro-, *N*-bromo-, and *N*-iodosuccinimide**



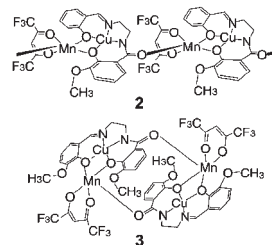
Kiyoshi Tanemura, Tsuneo Suzuki, Yoko Nishida, Koko Satsumabayashi, and Takaaki Horaguchi

- 934 **The Self-assembly, Characterization of Hepatocytes on Nano-sized Gold Colloid and Construction of Cellular Biosensor**



Hai-Ying Gu, Rong-Xiao Sa, Su-Su Yuan, Hong-Yuan Chen, and Ai-Min Yu

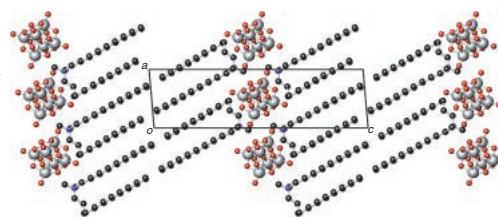
- 936 **Syntheses and Magnetic Properties of Cyclic Tetranuclear and Infinite Linear-chain Copper(II)-Manganese(II) Complexes**



Masaaki Nakamura, Minako Kawachi, Chikako Konatsu, Shutaro Osa, Takao Tarui, Naohide Matsumoto, and Nazzareno Re

- 938 **Crystal Structure of Bis(dimethyldioctadecylammonium) Hexamolybdate: a Molecular Model of Langmuir–Blodgett Films**

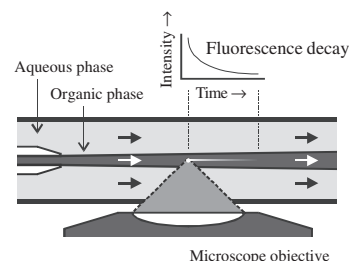
Crystal Structure of
(DODA)₂Mo₆O₁₉



Takeru Ito, Keiju Sawada, and Toshihiro Yamase

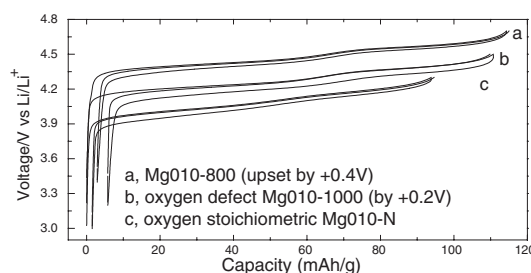
- 940 **Measurements of Interfacial Complexation of Samarium(III) and its Fluorescence Lifetime by Micro-two-phase Sheath Flow/Fluorescence Microscopy**

The fluorescence lifetime of samarium(III) complex was measured with micro-two-phase sheath flow/fluorescence microscopy for the first time. The toluene solution containing Sm(III) complex was made to flow in the flow of the aqueous solution. The fluorescence lifetime was measured from the tailing of the fluorescence along the inner flow. This method was applied for the measurement of the interfacial complexation.



Takahira Tokimoto, Satoshi Tsukahara, and Hitoshi Watarai

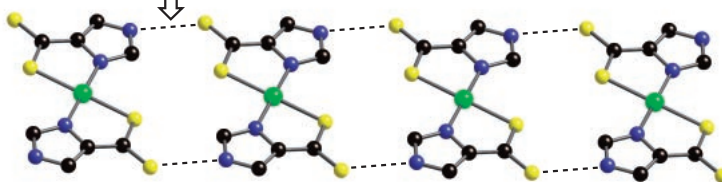
- 942 **Improved Cycleability of Oxygen Stoichiometric $\text{Li}_{1+x}\text{Mg}_y\text{Mn}_{2-x-y}\text{O}_{4+\delta}$ at Elevated Temperature**



Bohua Deng, Hiroyoshi Nakamura, and Masaki Yoshio

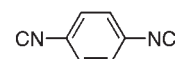
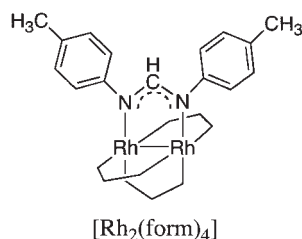
- 944 **New Copper(II) Complexes Connected by $\text{NH}\cdots\text{O}=\text{C}$ and $\text{NH}\cdots\text{S}=\text{C}$ Inter-molecular Hydrogen Bonds**

NH \cdots S Inter-molecular H-Bond



Mitsuru Kondo, Emi Shimizu, Tomonori Horiba, Hirokazu Tanaka, Yumiko Fuwa, Keiko Nabari, Kei Unoura, Tetsuyoshi Naito, Kenji Maeda, and Fumio Uchida

- 946 **Polymer and “Trimer-of-Dimers” Complexes Derived from $[\text{Rh}_2(\text{form})_4]$ (form⁻ = *N,N'*-Di-*p*-tolylformamidinate anion) and 1,4-Diisocyanobenzene**

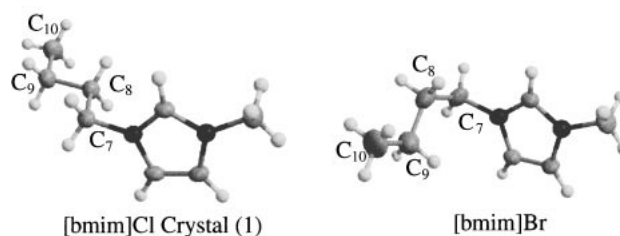


1,4-diisocyanobenzene (1,4-dib)

Makoto Handa, Motoi Yasuda, Yasuhiro Muraki, Daisuke Yoshioka, Masahiro Mikuriya, and Kuninobu Kasuga

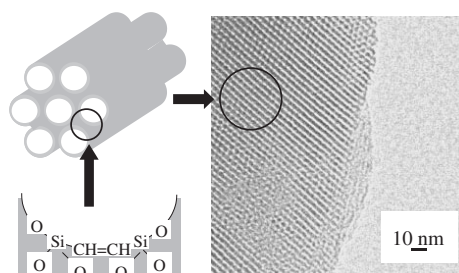
- 948 **Rotational Isomerism and Structure of the 1-Butyl-3-methylimidazolium Cation in the Ionic Liquid State**

Ryosuke Ozawa, Satoshi Hayashi, Satyen Saha, Akiko Kobayashi, and Hiro-o Hamaguchi



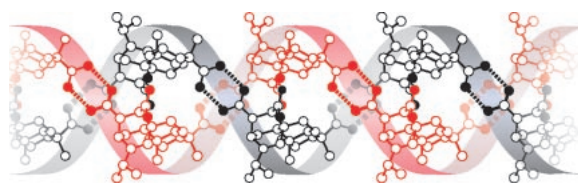
- 950 **Synthesis of Highly Ordered Hybrid Mesoporous Material Containing Etenylene ($-\text{CH}=\text{CH}-$) within the Silicate Framework**

Kiyotaka Nakajima, Daling Lu, Junko N. Kondo, Ikuyoshi Tomita, Shinji Inagaki, Michikazu Hara, Shigenobu Hayashi, and Kazunari Domen



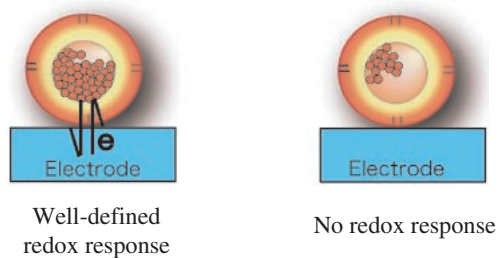
- 952 **A Novel Double-helical Assembly in Inclusion Crystals of Fumaropimaric Acid**

Kazuaki Kato, Kazuaki Aburaya, Masatake Matsumoto, Norimitsu Tohnai, and Mikiji Miyata



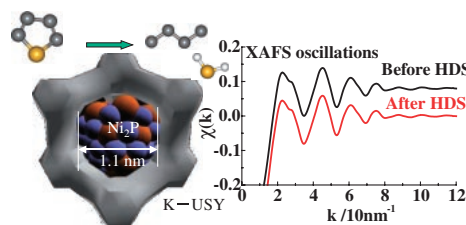
- 954 **Dependence of the Electrochemical Response of Ferritin on the Number of Iron Atoms at the Ferritin Core**

Masato Tominaga and Isao Taniguchi



- 956 **In Situ X-ray Absorption Fine Structure Studies on the Structure of Nickel Phosphide Catalyst Supported on K-USY**

Toshihide Kawai, Shinsuke Sato, Shushi Suzuki, Wang-Jae Chun, Kiyotaka Asakura, Kyoko K. Bando, Takashi Matsui, Yuji Yoshimura, Takeshi Kubota, Yasuaki Okamoto, Yong-Kul Lee, and Shigeo Ted Oyama



958 **Low Temperature Synthesis and Characterization of Cubic CaB₆ Ultrafine Powders**

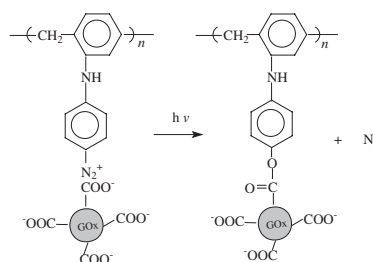


Ultrafine calcium hexaboride (CaB₆) was successfully synthesized at 500 °C in an autoclave.

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

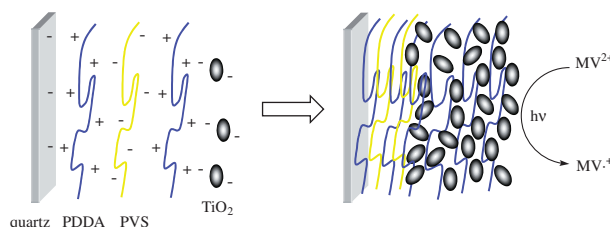
960 **Covalently Attached Multilayer Assemblies of Diazo-resins and Glucose Oxidase**

Before irradiation, the multilayer film is formed via electrostatic attraction between the diazonium groups and carboxylate groups. Upon irradiation, the diazonium groups decompose leading to phenyl cations, which combine with the carboxylate groups to produce covalent linkages.



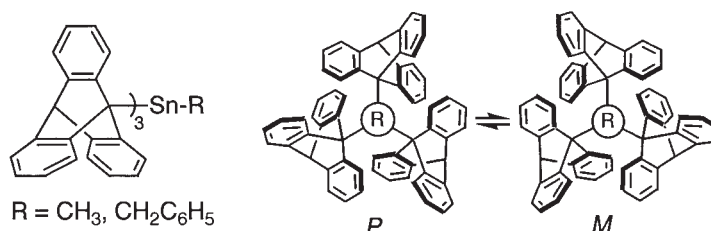
Suxia Zhang, Yaming Niu, Li Zhang, Lixin Shi, Xiaofang Li, and Changqing Sun

962 **Photoinduced Reduction of Methylviologen with TiO₂/Polymer Films**



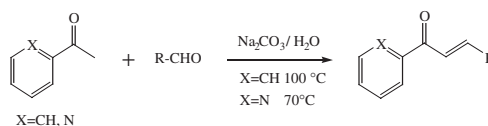
Takashi Sagawa, Makoto Kotani, Hideaki Nada, Xiaoli Ji, Kohji Yoshinaga, and Katsutoshi Ohkubo

964 **Dynamic Stereochemistry of Alkyltris(9-triptycyl)stannanes**



Gaku Yamamoto, Megumi Kaneko, Miki Ohkuma, and Mao Minoura

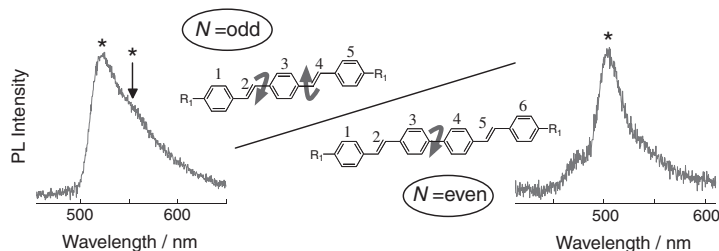
966 **Efficient and Clean Aldol Condensation Catalyzed by Sodium Carbonate in Water**



Ze Zhang, Ya-Wei Dong, and Guan-Wu Wang

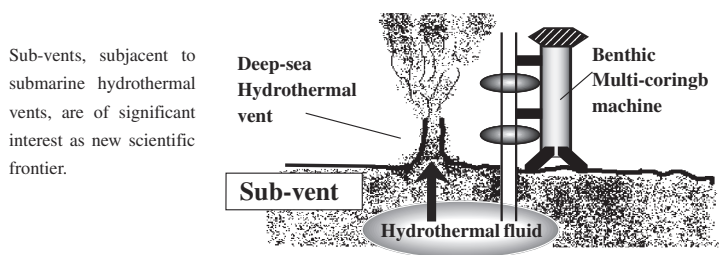
968 **Relationship between Molecular Skeleton and Stimulated-emission Threshold in Dilute Thin Films of Linear-chain-structured Fluorescent Dyes**

Ken-ichi Sakai, Takeo Tsuzuki, Jiro Motoyoshiya, Masamitsu Inoue, Yoshihiro Itoh, Musubu Ichikawa, Tetsuya Fujimoto, Iwao Yamamoto, Toshiki Koyama, and Yoshio Taniguchi



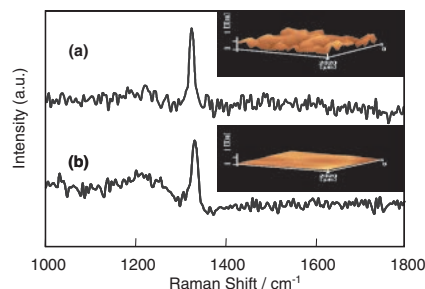
970 **Large Enantiomeric Excesses of L-Form Amino Acids in Deep-sea Hydrothermal Sub-vent of 156 °C Fluids at the Suiyo Seamount, Izu-Bonin Arc, Pacific Ocean**

Yoshinori Takano, Tsukasa Horiuchi, Kensei Kobayashi, Katsumi Marumo, and Tetsuro Urabe



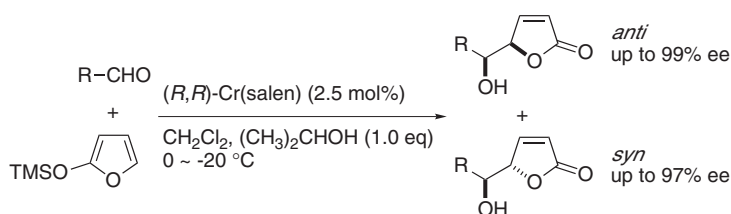
972 **Electrochemical Properties of Ar⁺ Sputtered Polycrystalline Diamond Electrodes with Smoothed Surfaces**

Rika Sato, Takeshi Kondo, Kenichi Shimizu, Kensuke Honda, Yoshiyuki Shibayama, Keiya Shirahama, Akira Fujishima, and Yasuaki Einaga



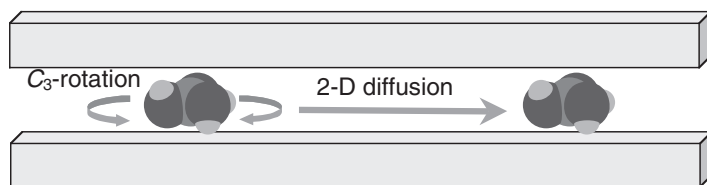
974 **Highly Enantioselective Cr(salen)-catalyzed Reaction of 2-(Trimethylsilyloxy)furan and Aldehydes. Effect of Alcohol on Enantioselectivity**

Satoaki Onitsuka, Yuko Matsuoka, Ryo Irie, and Tsutomu Katsuki

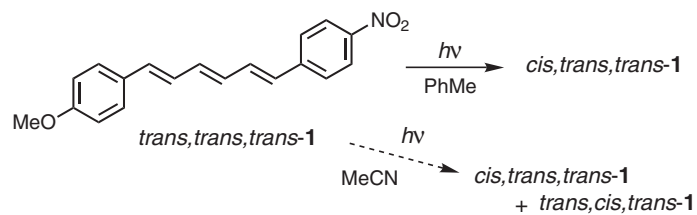


976 **Two-dimensional Molecular Motions of Guanidinium Ions Confined in the Interlayer Space of Tetrasilicicfluormica**

Miho Yamauchi, Shin'ichi Ishimaru, and Ryuichi Ikeda

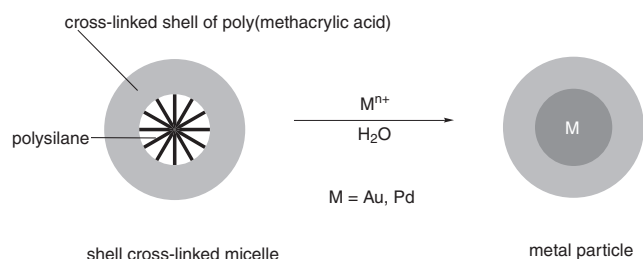


- 978 Solvent-dependent *cis-trans* Photoisomerization of *p*-Methoxy-*p*'-nitro-substituted *trans,trans-trans*-1,6-Diphenyl-1,3,5-hexatriene



Yoriko Sonoda and Yuji Kawanishi

- 980 Metal Nanoparticles Derived from Polysilane Shell Cross-linked Micelle Templates



Takanobu Sanji, Yuya Ogawa, Yuriko Nakatsuka, Masato Tanaka, and Hideki Sakurai