

Chemistry Letters

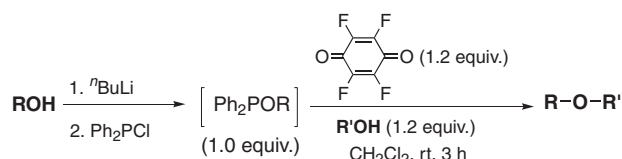
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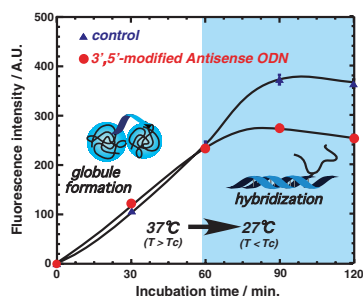
- 984 **A Convenient Method for the Preparation of Symmetrical or Unsymmetrical Ethers by The Coupling of Two Alcohols via A New Type of Oxidation–reduction Condensation Using Tetrafluoro-1,4-benzoquinone**



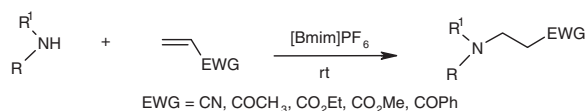
Taichi Shintou and Teruaki Mukaiyama

- 986 **Temperature-dependent Regulation of Anti-sense Activity Using a DNA/poly(*N*-isopropylacrylamide) Conjugate**

Masaharu Murata, Wataru Kaku, Takahisa Anada, Yoshikuni Sato, Mizuo Maeda, and Yoshiki Katayama



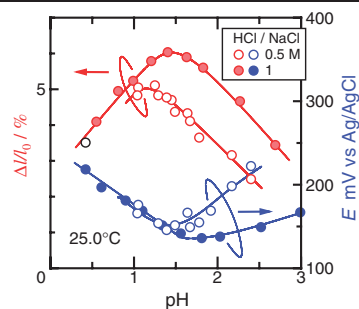
- 988 **Aza-Michael Reactions in Ionic Liquids. A Facile Synthesis of β -Amino Compounds**



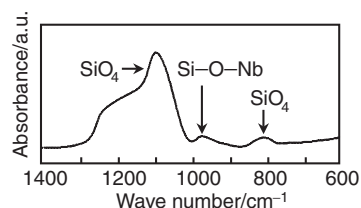
J. S. Yadav, B. V. S. Reddy, A. K. Basak, and A. V. Narsaiah

- 990 **Enhanced Electrochemomechanical Behaviors of Polyaniline Films by Chloride Concentrations**

Wataru Takashima, Megumi Nakashima, Shyam S. Pandey, and Keiichi Kaneto



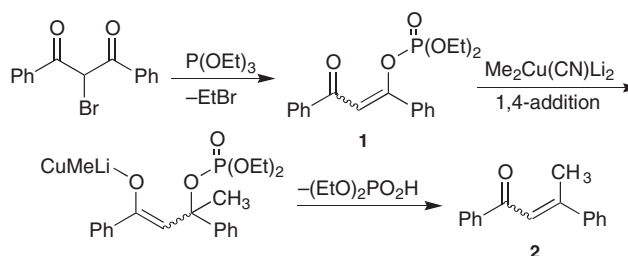
992 **Synthesis and Catalytic Activity of Niobium-Containing Hexagonal Mesoporous Silica**



Yanyong Liu, Kazuhisa Murata, and Megumu Inaba

Nb-HMS which synthesized using dodecylamine as a template shows high activity for the epoxidation of propylene with H₂O₂ and TBHP as oxidants.

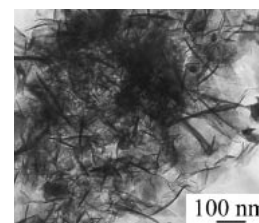
994 **Alkylation of α -Halo Diketones via Enol Phosphate Intermediate**



Jim Yoshitaka Onishi, Tomofumi Takuwa, and Teruaki Mukaiyama

996 **Synthesis of Nickel Sulfide via Hydrothermal Microemulsion Process: Nanosheet to Nano-needle**

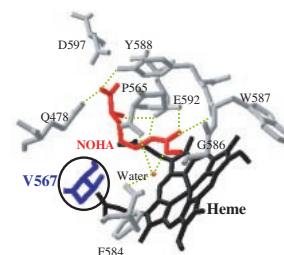
Monolayer-dispersed 2D nickel sulfide nanosheets were synthesized *via* a simple microemulsion-assisted hydrothermal process. The 2D nanosheets can roll up into 1D nanoneedles. The obtained nanosheets are likely to be useful in catalytic applications.



Deliang Chen, Lian Gao, and Peng Zhang

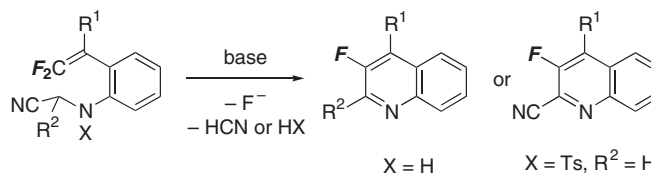
998 **Critical Role of Val567 in Substrate Recognition by Neuronal Nitric Oxide Synthase for NO Formation Activity**

Leu and Phe mutations at conserved Val567 located within the substrate binding site of neuronal nitric oxide synthase markedly lowered activity on the physiological substrates, L-Arg and N^G-hydroxy-L-Arg, and other potential alkyl- and arylguanidine substrates, suggesting that the residue at this position is important for substrate recognition by the enzyme.



Hiroto Takahashi, Yuko Sato, Magoli Moreau, Marie-Agnes Sari, Jean-Luc Boucher, Daniel Mansuy, Ikuko Sagami, and Toru Shimizu

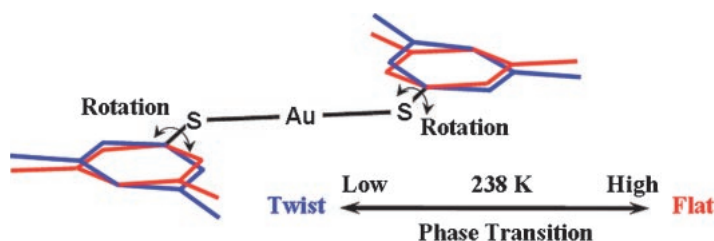
1000 **A Facile Synthesis of 2,4-Disubstituted 3-Fluoroquinolines via Intramolecular Cyclization of *o*-Cyanomethylamino- β,β -difluorostyrenes**



Yukinori Wada, Takashi Mori, and Junji Ichikawa

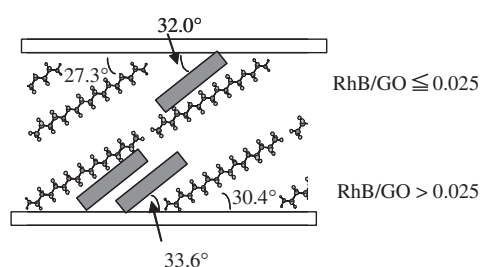
- 1002 **Temperature-Dependent Solid-state Luminescence and Reversible Phase Transition of $(n\text{-Bu}_4\text{N})[\text{Au}(\text{SC}_6\text{H}_3\text{-3,5-Me}_2)_2]$**

Seiji Watase, Takayuki Kitamura, Nobuko Kanehisa, Masami Nakamoto, Yasushi Kai, and Shozo Yanagida



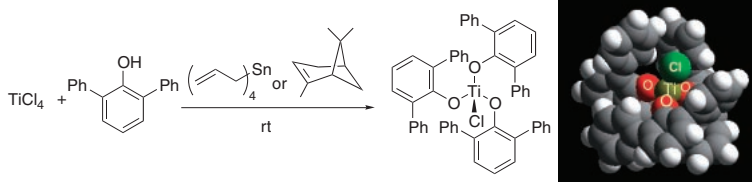
- 1004 **Preparation and Fluorescent Properties of Rhodamine B-hexadecylamine-intercalated Graphite Oxide Thin Film**

Yoshiaki Matsuo, Tomokazu Fukutsuka, and Yosohiro Sugie



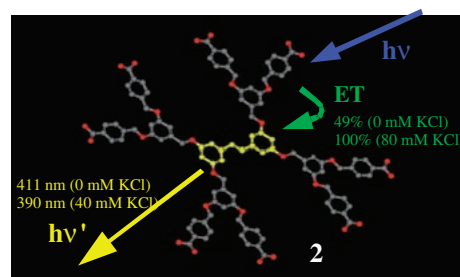
- 1006 **A New Method for the Preparation of Aluminum and Titanium Tris(2,6-diphenylphenoxide) Reagents and Their Application in Organic Synthesis**

Atsushi Sato, Asuka Hattori, Kazuaki Ishihara, Susumu Saito, and Hisashi Yamamoto



- 1008 **Controlling the Hydrophobic Properties of Water-soluble Stilbene Dendrimers**

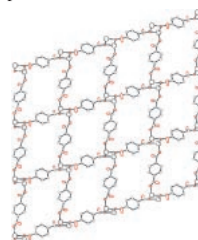
Junpei Hayakawa, Atsuya Momotake, Ritsuko Nagahata, and Tatsuo Arai



- 1010 **Framework Assembly Engineering. Effects of Nitro Groups on Assemblies of Phenylidicarboxylates**

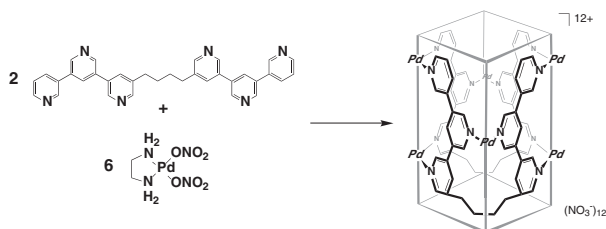
Ai-Qing Ma, Zhan Shi, Ru-Ren Xu, Wen-Qin Pang, and Long-Guan Zhu

The modifying group of substituted phenylidicarboxylate plays a key role in the assembly of 2D novel framework and potential material exhibits nice fluorescent property.



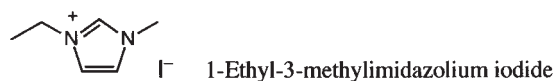
1012 **Stabilization of a Self-assembled Coordination Nanotube by Covalent Link**

Masahide Tominaga, Masanori Kato, Takashi Okano, Shigeru Sakamoto, Kentaro Yamaguchi, and Makoto Fujita



1014 **Novel and Efficient Organic Liquid Electrolytes for Dye-sensitized Solar Cells Based on a Ru(II) Terpyridyl Complex Photosensitizer**

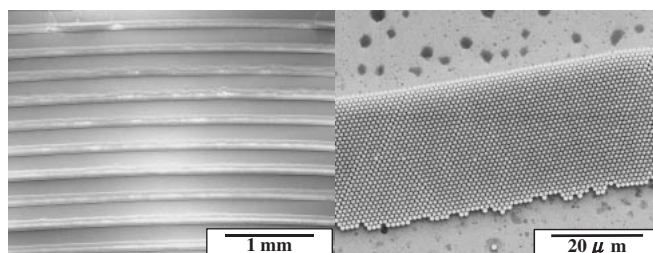
A novel electrolyte containing an imidazolium iodide produced an 8.0% solar energy-to-electricity conversion efficiency with a dye-sensitized solar cell based on a Ru(II) terpyridyl complex photosensitizer



Kohjiro Hara, Takeshi Nishikawa, Kazuhiro Sayama, Kenichi Aika, and Hironori Arakawa

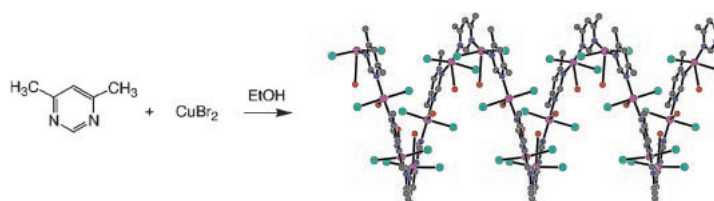
1016 **Self-assembly of Particle Wires in 2-D Ordered Array**

Yoshitake Masuda, Minoru Itoh, and Kunihiro Koumoto



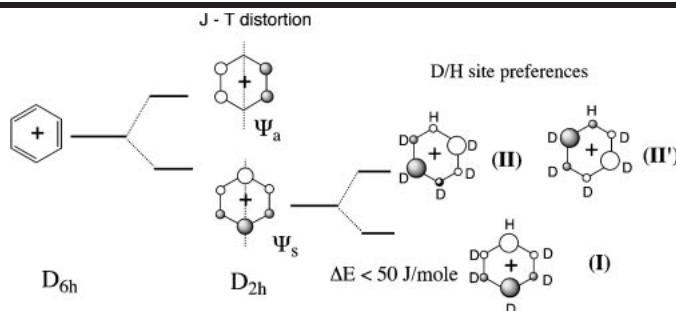
1018 **A Self-assembled Helix from 4,6-Dimethylpyrimidine and Copper(II) Bromide**

Takayuki Ishida, Liming Yang, and Takashi Nogami



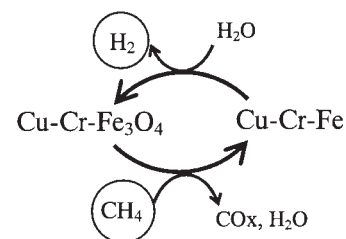
1020 **ESR Detection of the Isotopic-site-preference in the Jahn-Teller Distorted Benzene Cation Radicals Produced in MCM-41, Silica Gel, and Halocarbons**

Kazumi Toriyama and Masaharu Okazaki



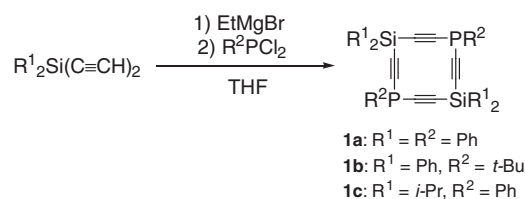
1022 Methane to Hydrogen by Means of Redox of Modified Iron Oxides

CH₄ can be converted to pure H₂ by means of repeated reduction of modified iron oxides (Cu-Cr-FeOx) with CH₄ and subsequent oxidation of the reduced oxides with H₂O.



Sakae Takenaka, Van Tho Dinh Son, Chisa Yamada, and Kiyoshi Otsuka

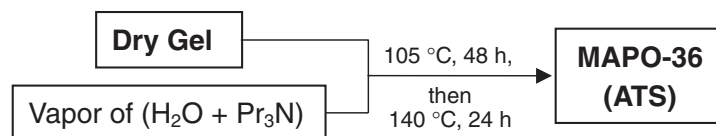
1024 Synthesis and Structures of Cyclic Ethynylphosphine Ligands



Rie Shiozawa and Kenkichi Sakamoto

1026 A Convenient Synthesis of MAPO-36 (ATS) by Dry-gel Conversion (DGC) Technique

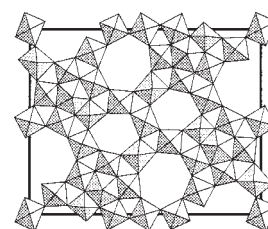
Magnesioaluminophosphate MAPO-36 (ATS topology) was conveniently synthesized by dry-gel conversion (DGC) technique. Phase selection was very sensitive to the heating protocol. ATS obtained by DGC consisted of very small crystallites (<1 μm).



Shyamal Kumar Saha, Yoshihiro Kubota, and Yoshihiro Sugi

1028 Hydrothermal Synthesis of A New Mo-V-O Complex Metal Oxide and Its Catalytic Activity for The Oxidation of Propane

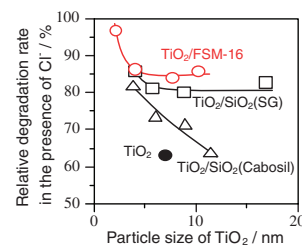
Structural model of the orthorhombic phase of a new Mo-V-O catalyst was hydrothermally synthesized. Mo and V are located in the octahedral positions. This catalyst showed high activity for propane oxidation.



Tomokazu Katou, Damien Vitry, and Wataru Ueda

1030 Support Effect of Silica on Photocatalytic Degradation of Dibutyl Phthalate by TiO₂ Nanoparticles in Water Containing Chloride Anion

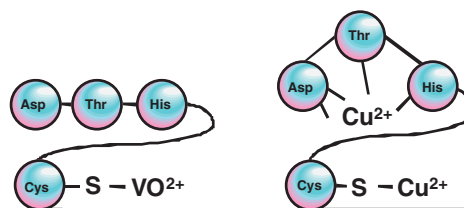
Employing silica as a support of TiO₂ reduced the inhibition effect of chloride anion on photocatalytic activity for degradation of dibutyl phthalate in water. This support effect varied with the kind of silica material.



Hisao Yoshida, Jun-ichi Nishimoto, Yoshinori Miyashita, Chihiro Ooka, Shin-ichi Komai, Atsushi Satsuma, and Tadashi Hattori

- 1032 **Specific Binding of Vanadyl Ion (VO^{2+}) with Thiolate of the Cysteine-34 Residue in Serum Albumin, Demonstrated by CD Spectroscopy and Kinetic Property**

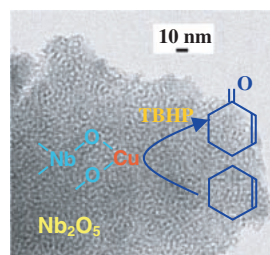
Hiroyuki Yasui, Yasuo Kunori, and Hiromu Sakurai



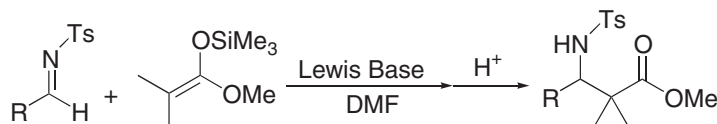
Possible reactions of BSA with VO^{2+} and Cu^{2+} .

- 1034 **Preparation and Catalytic Application of Transition Metal (Fe, V, or Cu) Oxides Homogeneously Dispersed in the Wall of Mesoporous Nb_2O_5**

Tomohiro Yamashita, Daling Lu, Junko N. Kondo, Michikazu Hara, and Kazunari Domen

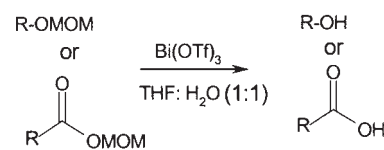


- 1036 **Lewis Base-Catalyzed Mannich-type Reaction between Aldimine and Trimethylsilyl Enolate**



Hidehiko Fujisawa, Eiki Takahashi, Takashi Nakagawa, and Teruaki Mukaiyama

- 1038 **Highly Efficient and Convenient Deprotection of Methoxymethyl Ethers and Esters Using Bismuth Triflate in an Aqueous Medium**

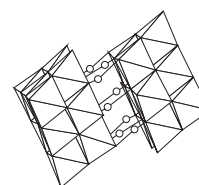


R=aliphatic, aromatic

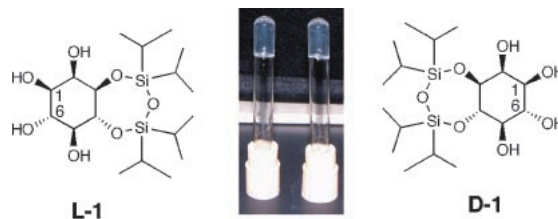
S. Venkat Reddy, R. Jagadeeshwar Rao, U. Sampath Kumar, and J. Madhusudana Rao

- 1040 **Synthesis of a Reduced Tridecavanadate Dimer Linked by Eight Hydrogen Bonds**

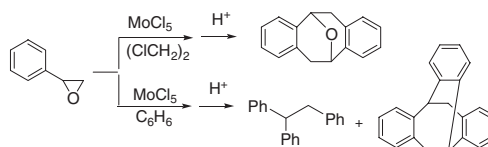
The first reduced tridecavanadate with a condensed structure has been isolated from the hydrolysis products of $[\text{V}_{17}\text{O}_{42}]^{4-}$. The cluster is dimerized through eight hydrogen bonds.



Taisei Kurata, Yoshihito Hayashi, Akira Uehara, and Kiyoshi Isobe

1042 **Organogel Formation of Optically Active 1,6-di-*O*-TIPDS-*myo*-inositol**

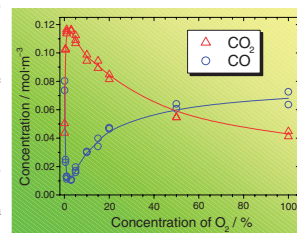
Asao Hosoda, Yasuhito Miyake, Eisaku Nomura, and Hisaji Taniguchi

1044 **Formation of 8-Membered Ring Compounds by the Reaction of Styrene Oxide with MoCl₅**

Qiaoxia Guo, Kiyohiko Nakajima, and Tamotsu Takahashi

1046 **Behavior of By-products during Direct-photodegradation Treatment of Trichloroethylene. Effect of Oxygen Concentration on Production of By-products**

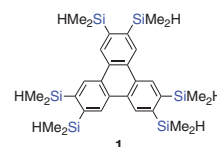
During direct-photodegradation treatment using a low-pressure mercury lamp of volatile organic chlorinated compounds, with which soil and groundwater have been polluted, a principal issue is how efficiently slightly-degradable by-products such as carbon-monoxide, phosgene, dichloroacetyl chloride, and ozone can be degraded. Oxygen in the treatment atmosphere is considered to influence photodegradation of the by-products chemically and physically. We carried out the photodegradation treatment of trichloroethylene at various oxygen concentrations, and found that oxidation of carbon-monoxide was highly accelerated, degradation rates of dichloroacetyl chloride and phosgene increased, and production of ozone reduced with decreasing the oxygen concentration to ca. 3.0 vol %.



Shin Yamamoto, Takashi Amemiya, Masayuki Murabayashi, and Kiminori Itoh

1048 **2,3,6,7,10,11-Hexakis(dimethylsilyl)triphenylene**

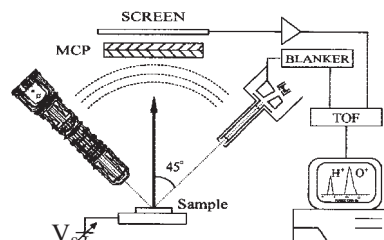
2,3,6,7,10,11-Hexakis(dimethylsilyl)triphenylene (**1**) was synthesized by the silylation of 2,3,6,7,10,11-hexabromotriphenylene with chlorodimethylsilane and magnesium. The absorption and emission spectra of **1** revealed that the silyl substituents modify optical properties of triphenylene.



Soichiro Kyushin, Norikatsu Takemasa, Hideyuki Matsumoto, Hiroaki Horiuchi, and Hiroshi Hiratsuka

1050 **Direct Proof for Electrochemical Substitution of Surface Hydrogen of Boron-doped Diamond Electrode by TOF-ESD Method**

Schematic diagram of TOF-ESD microscopy system, "protoscope". A pencil-type electron gun for FE-SEM and conventional LEED gun for LEED, AES, and ESDIAD are combined with an ion detector consisting of microchannel plates (MCPs) and a phosphor screen.

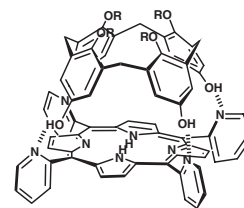


Ichizo Yagi, Keiko Ogai, Takeshi Kondo, Akira Fujishima, Kazuyuki Ueda, and Kohei Uosaki

1052 **A Duplex of Tetra(2-pyridyl)porphyrin and Tetrahydroxycalix[4]arene**

Haruki Ohkawa, Satoshi Arai, Shinji Takeoka, Toshimichi Shibue, and Hiroyuki Nishide

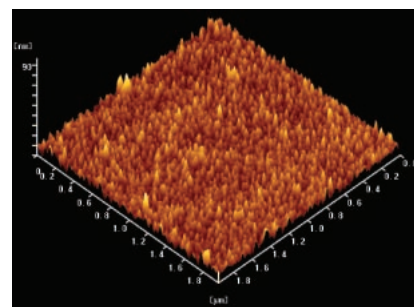
A duplex of tetra(2-pyridyl)porphyrin and tetrahydroxycalix[4]arene via hydrogen bonds.



1054 **Fabrication of Nanoelectrode Ensembles of Porous Gold Nanoshells and Direct Electrochemistry of Horseradish Peroxidase Immobilized on the Electrode**

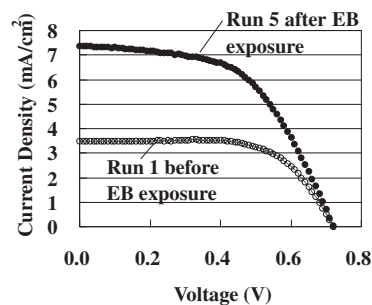
Xia-Yan Wang, Hui Zhong, Yang Lv, and Hong-Yuan Chen

Novel nanoelectrode ensembles of porous gold nanoshells were prepared on a glassy carbon electrode surface through $\text{NH}_2(\text{CH}_2)_2\text{SH}$ self-assembly approach.



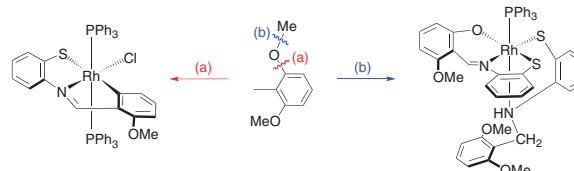
1056 **Low Temperature Preparation of Nanoporous TiO_2 Layers for Plastic Dye Sensitized Solar Cells**

T. Kado, M. Yamaguchi, Y. Yamada, and S. Hayase



1058 **Concurrently Observed Activation of Aryl-oxygen and Alkyl-oxygen Bonds in The Formation of Rhodium(III) Complexes**

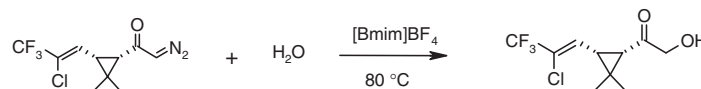
Tatsuya Kawamoto, Yuki Fujimura, and Takumi Konno



The reaction of a dimethoxyphenylbenzothiazoline derivative with rhodium(I) complex leads to two rhodium(III) complexes, accompanied by two kinds of bond cleavage modes of C(aryl)-O and C(alkyl)-O.

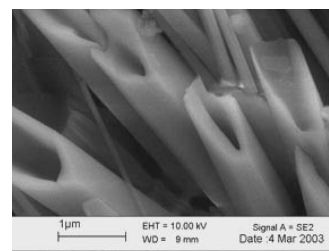
1060 **Green Protocol for the O-H Insertion of α -Diazoketones with Alcohols and Water Using Ionic Liquid [Bmim] BF_4**

J. S. Yadav, B. V. S. Reddy, and M. Srinivas



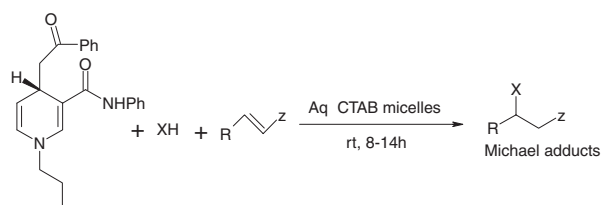
1062 **Ultraviolet-emitting ZnO Microtube Array Synthesized by a Catalyst-assisted Flux Method**

Well-aligned ZnO microtubes were prepared on silicon substrate by a catalyst-assisted flux method using ZnO nanobelts as starting materials at a temperature of 860 °C and the growth mechanism was controlled by SLS mechanism.



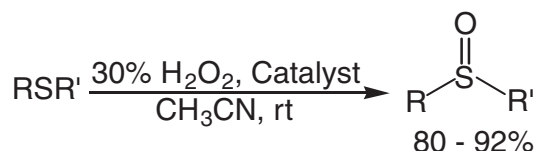
Xianghua Kong and Yadong Li

1064 **New Application of 1,4-Dihydropyridine System: Michael Reactions Mediated by 1,4-Dihydropyridine–Enolate Adduct in Micellar Medium**



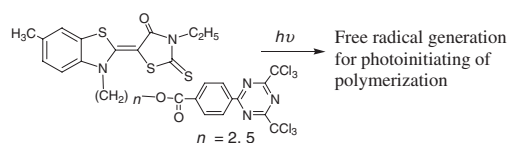
Sabir H. Mashraqui and Madhavi A. Karnik

1066 **Catalytic Conversion of Sulfides to Sulfoxides by The $[PZnMo_2W_9O_{39}]^{5-}$ Polyoxometalate**



Bahram Yadollahi

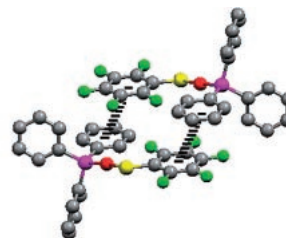
1068 **Merocyanine-dye-sensitized Photoinitiator Generating a Free-radical via an Intramolecular Electron-transfer Process**



Koichi Kawamura

1070 **Aggregation through the Quadrupole Interactions of Gold(I) Complex with Triphenylphosphine and Pentafluorobenzenethiolate**

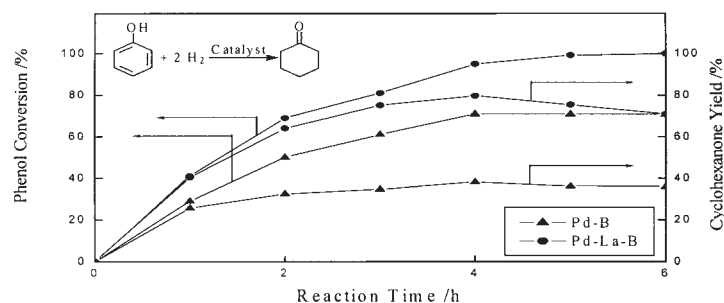
Dimeric aggregation through dual quadrupole interactions both in the solid state and in solution.



Seiji Watase, Takayuki Kitamura, Nobuko Kanehisa, Motohiro Shizuma, Masami Nakamoto, Yasushi Kai, and Shozo Yanagida

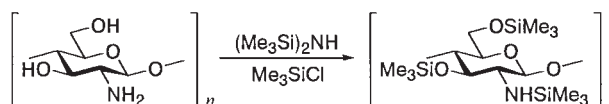
- 1072 **Liquid Phase Hydrogenation of Phenol to Cyclohexanone Over A Pd-La-B Amorphous Catalyst**

Li Zhuang, Hexing Li, Weilin Dai, and Minghua Qiao



- 1074 **Trimethylsilylated Chitosan: A Convenient Precursor for Chemical Modifications**

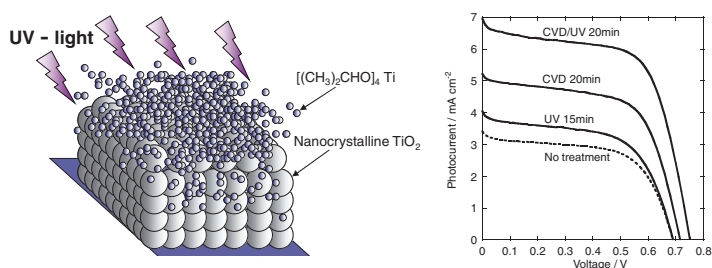
Trimethylsilylated chitosan has been prepared and proved to be a convenient precursor for chemical modifications.



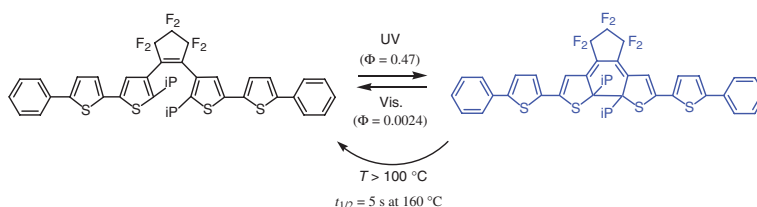
Keisuke Kurita, Masaaki Hirakawa, Kaori Aida, Jin Yang, and Yasuhiro Nishiyama

- 1076 **UV Light-assisted Chemical Vapor Deposition of TiO₂ for Efficiency Development at Dye-sensitized Mesoporous Layers on Plastic Film Electrodes**

Takurou N. Murakami, Yujiro Kijitori, Norimichi Kawashima, and Tsutomu Miyasaka



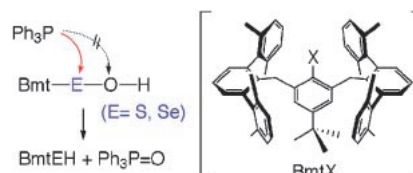
- 1078 **Synthesis and Photochromism of Diaryl-ethenes with Isopropyl Groups at the Reactive Carbons and Long π -Conjugated Heteroaryl Groups**



Seiya Kobatake and Masahiro Irie

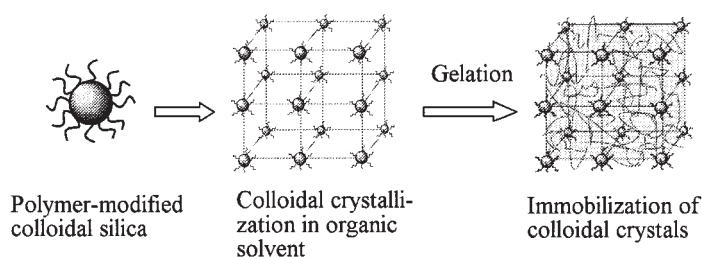
- 1080 **Reaction of Stable Sulfenic and Selenenic Acids Containing a Bowl-type Steric Protection Group with a Phosphine. Elucidation of the Mechanism of Reduction of Sulfenic and Selenenic Acids**

Kei Goto, Keiichi Shimada, Michiko Nagahama, Renji Okazaki, and Takayuki Kawashima



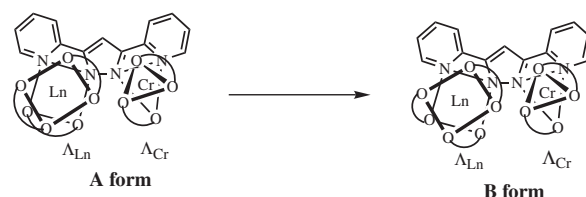
- 1082 **Immobilization of Colloidal Crystals, Formed from Polymer-modified Silica in Organic Solvent, in Polymer Gel with Radical Polymerization**

Kohji Yoshinaga, Kumiko Fujiwara, Yasuyuki Tanaka, Mikiko Nakanishi, and Masafumi Takesue



- 1084 **Novel Structural Transformation around Ln(III) and Unusual Bending of Acetylacetonato Chelate in A Series of New 3d–4f Dinuclear Complexes [(hfac)₃Ln(μ-bpypz)-Cr(acac)₂]**

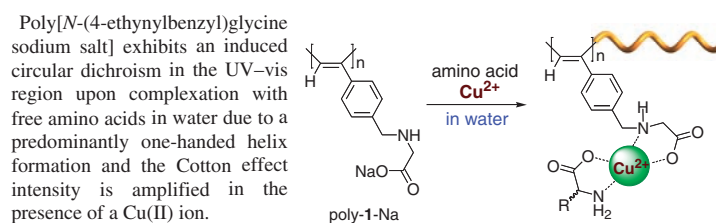
Ryouji Kawahata, Toshiaki Tsukuda, Takashi Yagi, Md. Abdus Subhan, Hiroyasu Nakata, Akira Fuyuhiko, and Sumio Kaizaki



Structural transformation from A to B with decreasing the Ln ion radius.

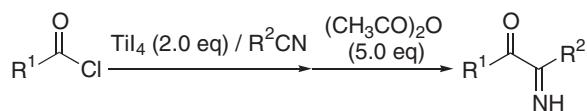
- 1086 **Cu(II)-assisted Helicity Induction on a Poly(phenylacetylene) Derivative Bearing an Achiral Glycine Residue with Amino Acids in Water**

Hiroaki Kawamura, Miki Ishikawa, Katsuhiro Maeda, and Eiji Yashima



- 1088 **Reductive Coupling of Acid Chlorides with Nitriles Promoted by Titanium Tetraiodide. A Rapid Access to α-Imino Ketones**

Makoto Shimizu, Nobuyuki Manabe, and Hiroshi Goto



Additions and Corrections

- 1090 **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