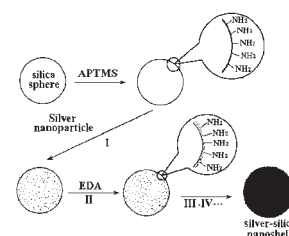


668 **Fabrication of Silver Nanoshell on Functionalized Silica Sphere through Layer-by-Layer Technique**

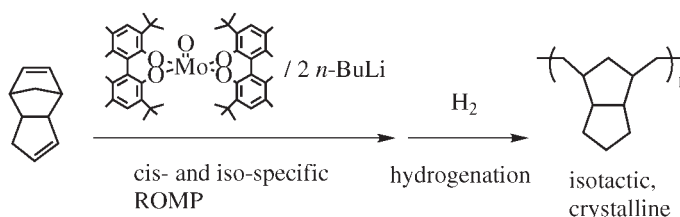
Zhong-jie Jiang, Chun-yan Liu, Yun Liu, Zhi-ying Zhang, and Yong-jun Li

Silver-silica composite particles with a core-shell structure have been obtained, and the shell thickness can be easily tailored by a layer-by-layer technique.



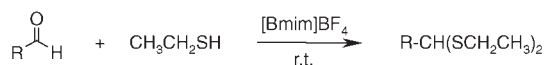
670 **Stereospecific Ring-Opening Metathesis Polymerization of *endo*-Dicyclopentadiene by Schrock–Hoveyda Catalyst and Novel Mo- and W-based Complexes. Development of Crystalline Hydrogenated Poly(*endo*-dicyclopentadiene)**

Shigetaka Hayano, Hiroshi Kurakata, Daisuke Uchida, Masato Sakamoto, Naoya Kishi, Hirokazu Matsumoto, Yasuo Tsunogae, and Ichiro Igarashi



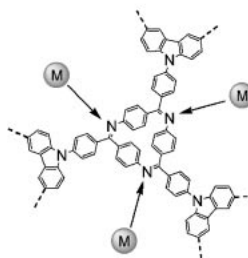
672 **Eco-friendly and Highly Chemoselective 1,3-Oxathio- and 1,3-Dithioacetalization of Aldehydes Using Ionic Liquids**

J. S. Yadav, B. V. S. Reddy, and G. Kondaji



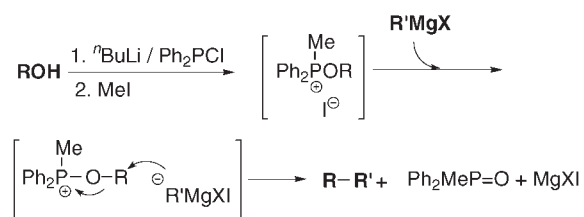
674 **Synthesis of Novel Carbazole Dendrimers Having a Metal Coordination Site**

Atsushi Kimoto, Jun-Sang Cho, Masayoshi Higuchi, and Kimihisa Yamamoto



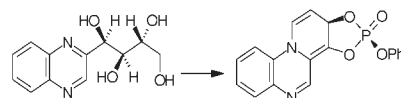
Novel carbazole dendrimers were synthesized via the cyclotrimerization. This reaction provides the formation of cyclic phenylazomethines in high yield owing to the steric hindrance with a higher generation. These dendrimers have the ability to assemble metal ions, resulting in a change in its fluorescence property.

- 676 **New One-pot Cross-coupling Reaction between Grignard Reagents and Alkoxy-methyl-diphenylphosphonium Iodides in situ-Formed from Alcohols, Chlorodiphenylphosphine and Iodomethane**



Taichi Shintou, Wataru Kikuchi, and Teruaki Mukaiyama

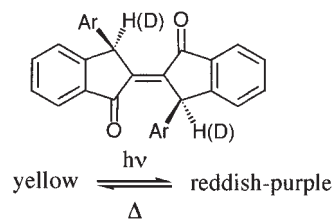
- 678 **A One-pot Synthesis of Cyclic Pyrido[1,2-a]quinoxaline Phosphate, a New Molecule of Biological Importance from a Quinoxaline Derivative of Sugar**



A five membered cyclic pyrido[1,2-a]quinoxaline phosphate has been efficiently synthesized from a quinoxaline derivative of sugar

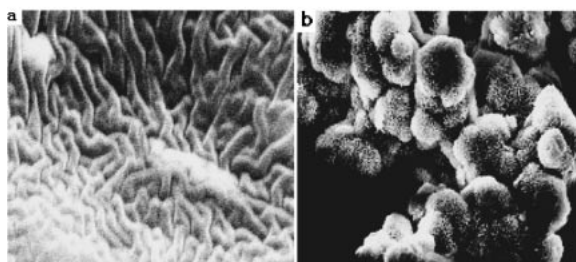
Shyamaprosad Goswami and Avijit Kumar Adak

- 680 **A Remarkable Isotope Effect on the Photochromism of *trans*-Biindenylidenedione in the Solid State**



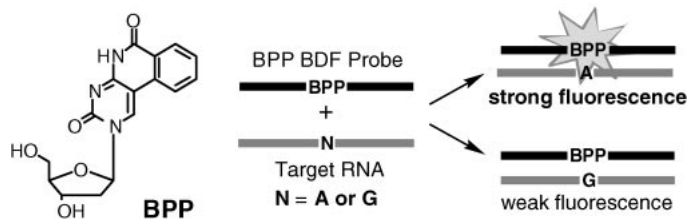
Koichi Tanaka, Yohei Yamamoto, Hideyuki Takano, and Mino R. Caira

- 682 **Preparation and Characterization of 6-Carboxychitosan**



Yongguo Zhou, Yuedong Yang, Dongjun Wang, and Xiaomin Liu

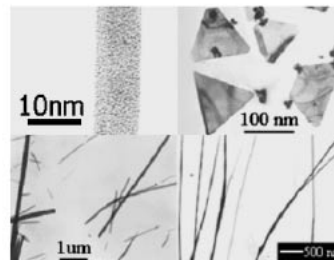
- 684 **Detection of A/G Single Nucleotide Alteration in RNA Using Base-discriminating Fluorescent Oligodeoxynucleotides**



Akimitsu Okamoto, Kazuki Tainaka, and Isao Saito

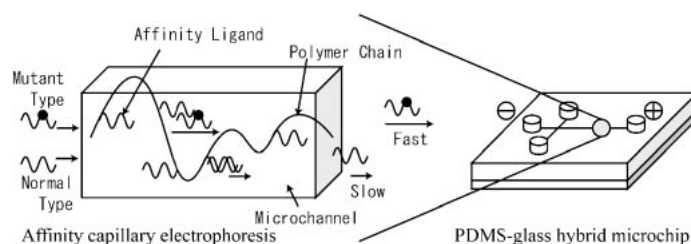
686 **Nanosilver Fabrication under the Control of Ligands Containing Pyridyl Group in Solution Phase with Photoreduction Method**

Nanosilver was prepared by photoreduction method and the size and shape of the nanosilver can be easily controlled by changing the organic capping reagent such as pyridine, nicotinic acid, 2,2'-dipyridylamine and 2,2'-bipyridine. Using different capping reagents, different shapes of nanosilvers, such as nanoribbon, nanotriangle or nanowire, can be obtained under mild condition.



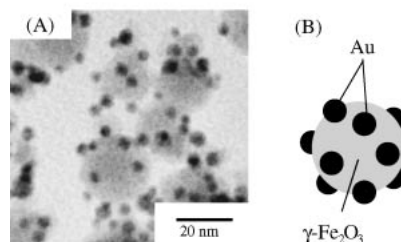
Zhen Xie, Zhiyong Wang, Yanxiong Ke, Zhenggen Zha, and Chao Jiang

688 **Affinity Capillary Electrophoresis in a Poly(dimethylsiloxane)-glass Hybrid Microchip**



Toshiyuki Ito, Akira Inoue, Kae Sato, Kazuo Hosokawa, and Mizuo Maeda

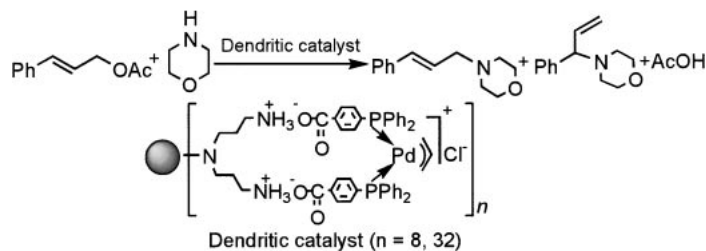
690 **Magnetic Composite Nanoparticle of Au/ γ - Fe_2O_3 Synthesized by Gamma-Ray Irradiation**



Typical TEM micrograph (A) and a schematic structure (B) of the Au/ γ - Fe_2O_3 nanoparticles.

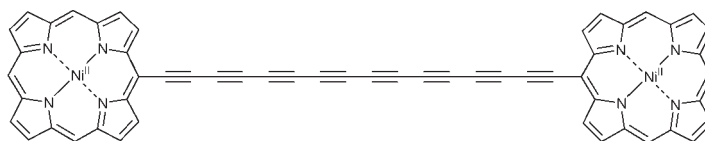
Satoshi Seino, Takuya Kinoshita, Yohei Otome, Kenji Okitsu, Takashi Nakagawa, and Takao A. Yamamoto

692 **Self-assembled Dendrimer-bound Pd(II) Complexes via Acid-base Interactions and their Catalysis for Allylic Amination**



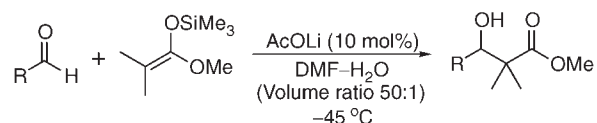
Masahiko Ooe, Makoto Murata, Atsushi Takahama, Tomoo Mizugaki, Kohki Ebitani, and Kiyotomi Kaneda

694 **Systematic Synthesis of Porphyrin Dimers Linked by Conjugated Oligoacetylene Bridges**



Kazuya Nakamura, Tatsuhiko Fujimoto, Satoshi Takara, Ken-ichi Sugiura, Hitoshi Miyasaka, Tomohiko Ishii, Masahiro Yamashita, and Yoshiteru Sakata

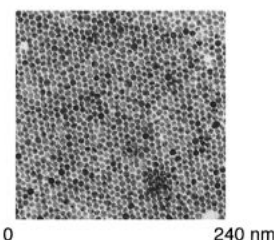
- 696 **Lithium Acetate Catalyzed Aldol Reaction between Aldehyde and Trimethylsilyl Enolate in a Dimethylformamide-H₂O Solvent**



Takashi Nakagawa, Hidehiko Fujisawa, and Teruaki Mukaiyama

- 698 **Construction of 2D Superlattices of Gold Nanoparticles at an Air/Water Interface Based on Hydrogen-Bonding Networks**

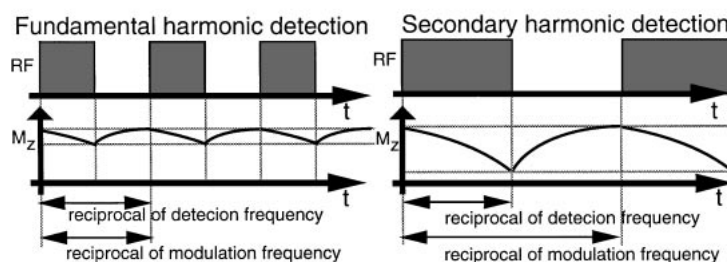
2D superlattices of gold nanoparticles were constructed at an air/water interface with controlling the interparticle spacing by incorporating a rigid hydrogen-bonding molecular unit between surface-functionalized gold nanoparticles.



Hiroshi Yao, Hiroyuki Kojima, Seiichi Sato, and Keisaku Kimura

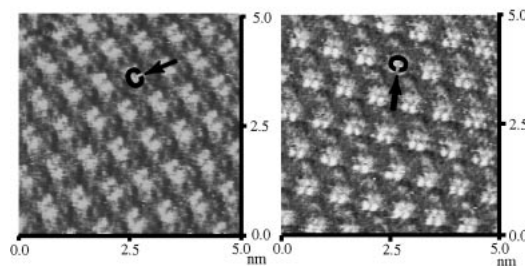
- 700 **Determination of Fundamental Harmonic-to-secondary Harmonic Ratio of Longitudinal Magnetization Change in Triarylmethyl or Nitroxide Radical Aqueous Solution Caused by ESR at 280 MHz for Nondestructive Oximetry**

Hidekatsu Yokoyama, Toshiyuki Sato, Kouichi Fukui, Osamu Itoh, Hiroaki Ohya, and Takao Akatsuka

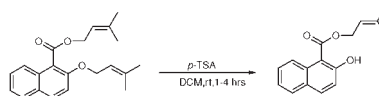


- 702 **Adlayer Structures of Binaphthyl Derivatives on Cu(111)**

Mei-Juan Han, Qing-Dao Zeng, Li-Jun Wan, and Chun-Li Bai



- 704 **A Simple, Effective and Highly Selective Cleavage of 3-Methylbut-2-enyl (prenyl) Ethers Using *p*-Toluenesulfonic Acid**

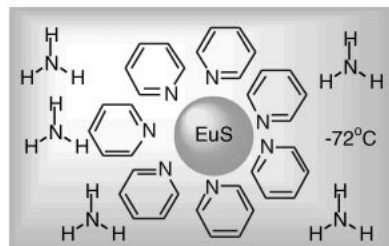


K. Suresh Babu, B. China Raju, P. V. Srinivas, A. Sridhar Rao, S. Praveen Kumar, and J. Madhusudana Rao

706 **Size Selective Synthesis of Surface-modified EuS Nanocrystals Using Pyridine and Their Physical Properties**

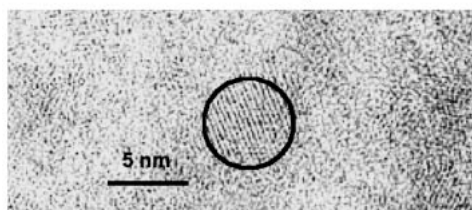
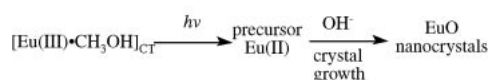
Supitcha Thongchant, Yasuchika Hasegawa, Yuji Wada, and Shozo Yanagida

The crystal size of EuS nanocrystals was successfully controlled by addition of pyridine to the reaction of europium metal and hydrogen sulfide in liquid ammonia.



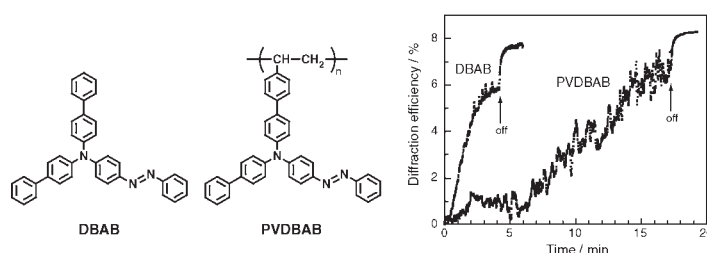
708 **EuO Nanocrystal Formation under ArF Laser Irradiation**

Yasuchika Hasegawa, Supitcha Thongchant, Tomoharu Kataoka, Yuji Wada, Tomoyuki Yatsuhashi, Nobuaki Nakashima, and Shozo Yanagida



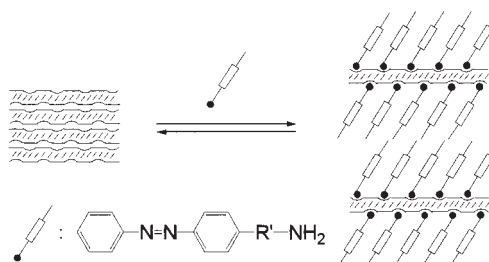
710 **Comparative Studies of the Formation of Surface Relief Grating. Amorphous Molecular Material vs Vinyl Polymer**

Hiroyuki Ando, Toru Takahashi, Hideyuki Nakano, and Yasuhiko Shirota



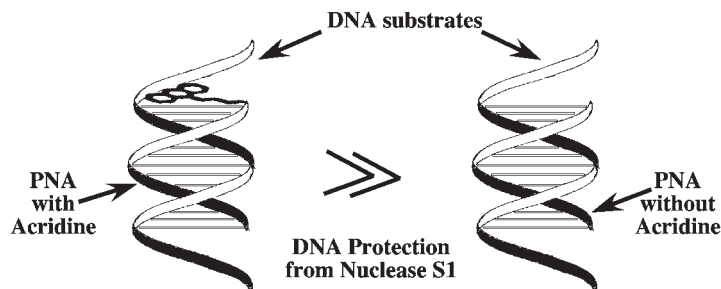
712 **Intercalation and Photochemical Behavior of Azobenzene Derivatives with Layered Polymer Crystals as the Organic Host**

Shinya Oshita and Akikazu Matsumoto

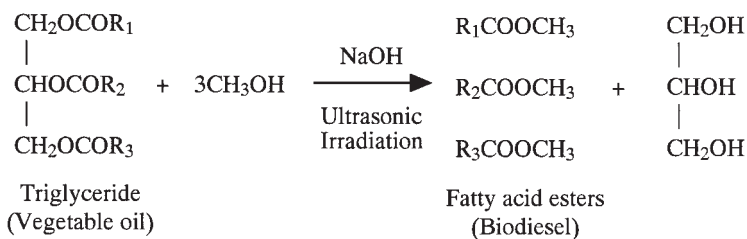


714 **Acridine-bearing PNA for Efficient Protection of Designated Site of DNA from Nuclease S1**

Binzhi Ren, Sheng Ye, Xingguo Liang, and Makoto Komiyama



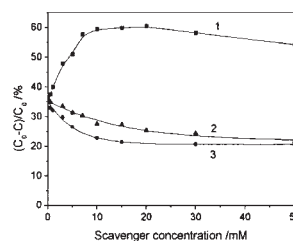
716 Conversion of Vegetable Oil to Biodiesel Using Ultrasonic Irradiation



Carmen Stavarache, Mircea Vinatoru, Rokuro Nishimura, and Yasuaki Maeda

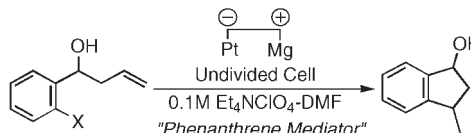
718 Radiation-induced Degradation of Nitrobenzene in Aqueous Solutions

The degradation of nitrobenzene was more favorable under oxidative conditions (curve 1) than under reductive conditions (curves 2 and 3). Based on the product analysis by GC-MS, possible nitrobenzene degradation mechanisms under both oxidative and reductive conditions were proposed.



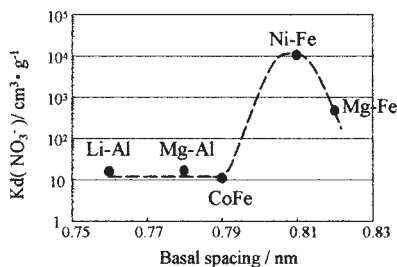
Shao-Hong Feng, Shu-Juan Zhang, Han-Qing Yu, and Qian-Rong Li

720 Regioselective Radical Cyclization by Electrochemical Reduction Using an Arene Mediator. Environmentally Benign Method



Nobuhito Kurono, Eiichi Honda, Fumikazu Komatsu, Kazuhiko Orito, and Masao Tokuda

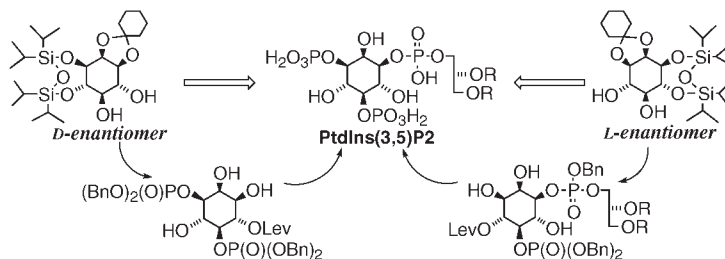
722 Nitrate Ion-sieve Properties of Layered Double Hydroxides



A nitrate ion-sieve property was observed for LDHs depending on the basal spacing of the brucite layer. The distribution coefficient of nitrate ion was maximum on the Ni-Fe type LDHs having a basal spacing of 0.81 nm.

Satoko Tezuka, Ramesh Chitrakar, Akinari Sonoda, Kenta Ooi, and Tahei Tomida

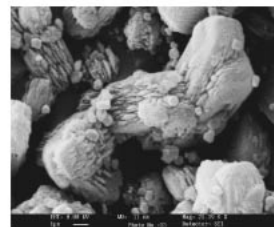
724 Enantiomerically Convergent Synthesis of Phosphatidyl-D-myoinositol 3,5-Bisphosphate from Both L- and D-1,2-O-Cyclohexylidene-myoinositol



Fushe Han, Minoru Hayashi, and Yutaka Watanabe

726 **In situ Formation of ZSM-5 in NaY Gel and Characterization of ZSM-5/Y Composite Zeolite**

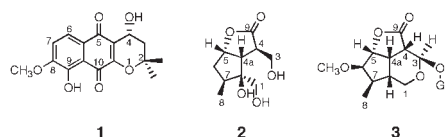
ZSM-5/Y composite zeolite was synthesized by in situ hydrothermal crystallization of NaY gel. It showed identical thermal and hydrothermal stability, better performance in dealumination and synergy advantages in catalytic cracking of heavy oil compared to the mechanical mixture.



ZSM-5/Y Composite

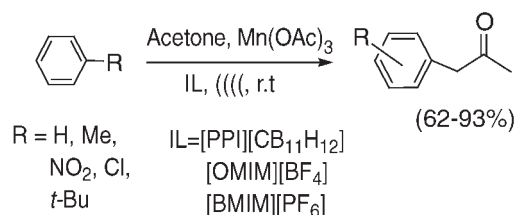
Honglin Chen, Baojian Shen, and Huifang Pan

728 **Naphthoquinone and Iridoid with NGF-potentiating Activity from *Verbena littoralis***



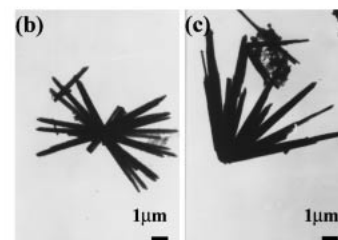
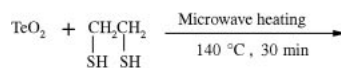
Yushan Li, Masayuki Satake, Yasukatsu Oshima, and Yasushi Ohizumi

730 **An Effective System to Synthesize Arylacetones. Substrate-ionic Liquid-ultrasonic Irradiation**



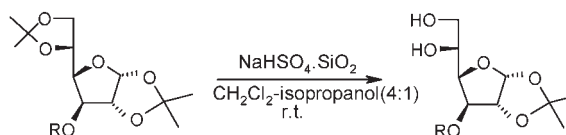
Zhu Yinghuai, Stefan Bahnmüller, Narayan S. Hosmane, and John A. Maguire

732 **Microwave-polythiol Method. A New Route to Preparation of Tellurium with Various Morphologies**



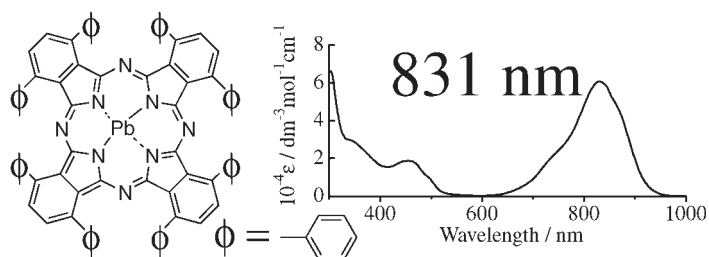
Ying-Jie Zhu and Xian-Luo Hu

734 **A Simple and Facile Chemo- and Regioselective Deprotection of Acetonides Using Silica Supported Sodium Hydrogen Sulfate as a Heterogeneous Catalyst**



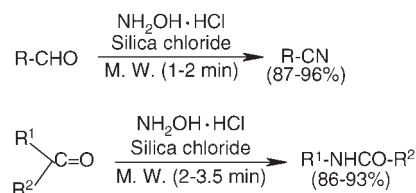
G. Mahender, R. Ramu, C. Ramesh, and Biswanath Das

- 736 **A Phthalocyanine Producing Green, Ocher, and Red Colors Depending on the Central Metals**



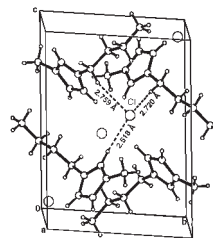
Takamitsu Fukuda, Kosuke Ono, Shigetsugu Homma, and Nagao Kobayashi

- 738 **Efficient and Rapid One-pot Conversions of Aldehydes into Nitriles and Ketones into Amides Using Silica Chloride under Microwave Irradiation**



K. V. N. S. Srinivas, I. Mahender, and Biswanath Das

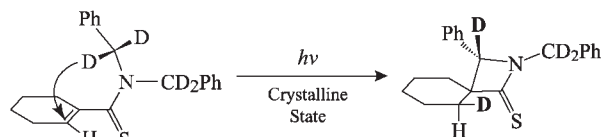
- 740 **Crystal Structure of 1-Butyl-3-methylimidazolium Chloride. A Clue to the Elucidation of the Ionic Liquid Structure**



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

- 742 **Deuterium Migration Mechanism in Chiral Thiolactam Formation by Neutron Diffraction Analysis**

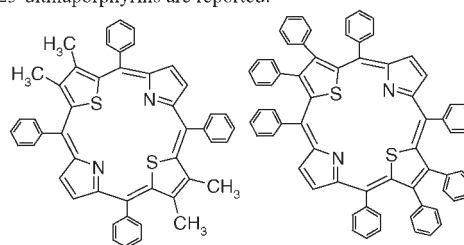
The single-crystal neutron diffraction revealed that in the process of photo-induced β -thiolactam formation from *N,N*-dibenzyl-1-cyclohexenecarbothioamide a deuterium atom bonded to the benzyl carbon atom is transferred to the intramolecular cyclohexene carbon to occupy the equatorial position of the produced cyclohexyl ring.



Takaaki Hosoya, Hidehiro Uekusa, Yuji Ohashi, Takashi Ohhara, Hiroyuki Kimura, and Yukio Noda

- 744 **Synthesis of β -Thiophene-Substituted 21,23-Dithiaporphyrins**

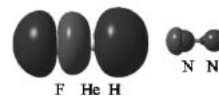
Synthesis and characterization of β -thiophene-substituted 21,23-dithiaporphyrins are reported.



Neeraj Agarwal, Sarada P. Mishra, A. Kumar, and M. Ravikanth

746 **Blue-shifted Hydrogen Bonds with Proton-donors Incapable of Rehybridization**

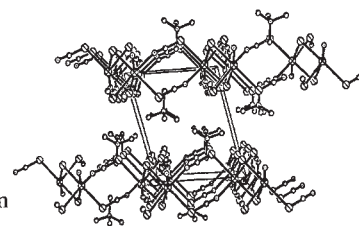
Blue-shifted hydrogen bonds were found for F-He-H···Y (Y = N₂, CO, and He) systems where the proton-donor (He) was incapable of rehybridization. Therefore, rehybridization is not a generally applicable driving force for the blue shift.



Jin-Ti Wang, Yong Feng, Lei Liu, Xiao-Song Li, and Qing-Xiang Guo

748 **Formation of a Novel Polymeric Cadmium(II) Complex Bridged by Sulfur and Thiocyanato Ions**

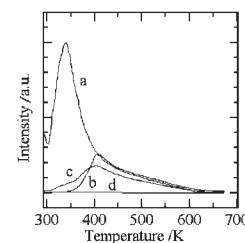
A 2D polymeric cadmium(II) complex bridged by sulfur and thiocyanato ions, $\{[N(CH_3)_4]_2[Cd(SCN)_2S]\}_n$, was synthesized by self-assembling from the reaction of a methanol/water solution containing cadmium(II) thiocyanate with tetramethylammonium thiocyanate.



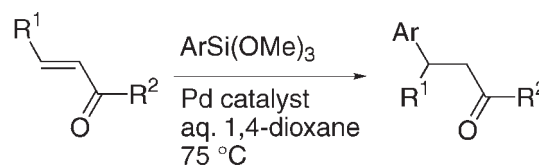
Sheng-Li Li, Jie-Ying Wu, Xuan-Jun Zhang, Yu-Peng Tian, Min-Hua Jiang, Zu-Yao Chen, Anwar Usman, and Hoong-Kun Fun

750 **Photostimulated Long-lasting Phosphorescence in Rare-earth-doped Glasses**

Tb³⁺-doped glass sample emits bright and long-lasting phosphorescence after irradiation by an 800 nm femtosecond pulsed laser. Long-lasting phosphorescence is observed once again after further excitation by 365 nm UV light when the femtosecond laser-induced long-lasting phosphorescence cannot be detected.



Jianrong Qiu, Xiongwei Jiang, Congshan Zhu, Jinhai Si, Chengyu Li, Qiang Su, and Kazuyuki Hirao

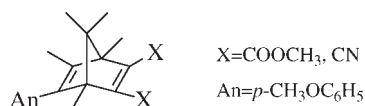
752 **1,4-Addition of Arylsiloxanes to Enones Catalyzed by Dicationic Palladium(II) Complexes in Aqueous Media**

Pd catalyst: Pd(dba)₂/dppben/Cu(BF₄)₂
or Pd(dba)₂/dppe/Cu(BF₄)₂

Takashi Nishikata, Yasunori Yamamoto, and Norio Miyaura

754 **Synthesis of New Donor-Acceptor Norbornadiene Derivatives**

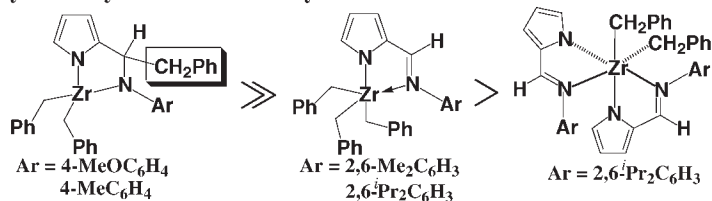
New donor-acceptor NBD derivatives were synthesized. These NBD derivatives have absorption in the visible region and photoisomerized to give thermal stable QC derivatives with fair durability.



Takabumi Nagai, Ikuko Takahashi, and Tadatomi Nishikubo

- 756 Unusual Enhancement of Ethylene Polymerization Activity of Benzyl Zirconium Complexes by Benzylation of the Imino Moiety of 2-(*N*-Aryliminomethyl)pyrrolyl Ligand

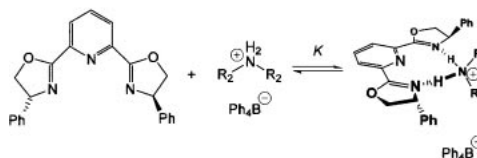
Ethylene Polymerization Activity Order



Hayato Tsurugi, Tsuneaki Yamagata, Kazuhide Tani, and Kazushi Mashima

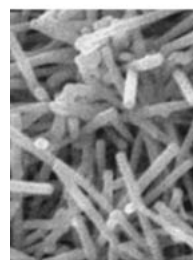
Ethylene polymerization activity was enhanced by the benzylation of the ligand.

- 758 A Novel Orthogonal Joint by Hydrogen Bonding. Pybox Ligand and Secondary Dialkylammonium Cation Complexes



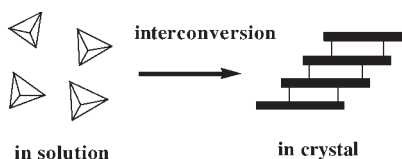
Kazuki Sada, Takahiro Sugimoto, Takahiro Tani, Yuuichi Tateishi, Tao Yi, Seiji Shinkai, Hiroyuki Maeda, Norimitsu Tohnai, and Mikiji Miyata

- 760 Reverse Micelle-assisted Route to Control Diameters of ZnO Nanorods by Selecting Different Precursors



Zhengquan Li, Yi Xie, Yujie Xiong, Rong Zhang, and Wei He

- 762 A Well Characterized Example of Conversion of Molecular Configuration Depending on the Existence of Intermolecular Interactions

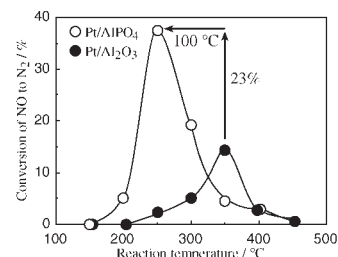


Qin-Yu Zhu, Yong Zhang, Jie Dai, Guo-Qing Bian, Ding-Xian Jia, Jia-Sheng Zhang, and Lin Guo

Tetrahedral cations [Ag(L)₂]⁺ change to planar configuration when the molecules crystallize out from solution.

- 764 High Activity of Pt/AlPO₄ Catalyst for Selective Catalytic Reduction of Nitrogen Monoxide by Propene in Excess Oxygen

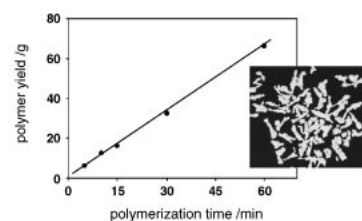
The activity of Pt(0.5 wt%)/AlPO₄ for C₃H₆-SCR was much higher than that of Pt(0.5 wt%)/Al₂O₃ and moreover the temperature window of the former located in lower side than that of the latter.



Ryuta Fujii, Masashi Seki, Jun Shinoda, Noriyasu Okazaki, and Akio Tada

766 **Highly Active, Thermally Robust V-based New Olefin Polymerization Catalyst System**

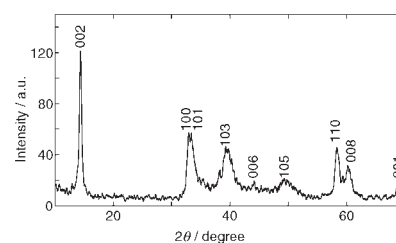
A V-based ethylene polymerization catalyst system containing a phenoxy-imine ligated V complex and a $MgCl_2$ -based compound has been developed. The catalyst system exhibits higher activities at higher polymerization temperatures (65100kg-PE/mol-cat/h, 75 °C). The system represents the first example of a highly active, thermally robust V-based olefin polymerization catalyst.



Yasushi Nakayama, Hideki Bando, Yoshiho Sonobe, Yasuhiko Suzuki, and Terunori Fujita

768 **Hydrothermal Synthesis of Fine MoS_2 Crystals from Na_2MoO_4 and KSCN**

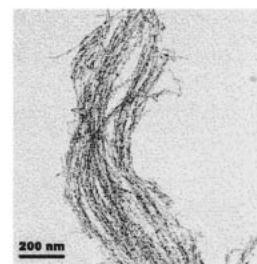
A fine crystal MoS_2 was synthesized by a hydrothermal method, which used KSCN as reducing reagent and vulcanizer. The reaction system could be applicable for preparing other technologically important transition metal sulfides.



Ye Tian, Yu He, and Yongfa Zhu

770 **α - Fe_2O_3 Nanowires. Confined Synthesis and Catalytic Hydroxylation of Phenol**

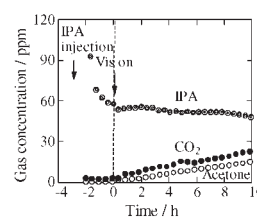
α - Fe_2O_3 nanowires were synthesized using SBA-15 as a template and showed a good catalytic activity for the hydroxylation of phenol with 30% H_2O_2 in aqueous solution at 343 K.



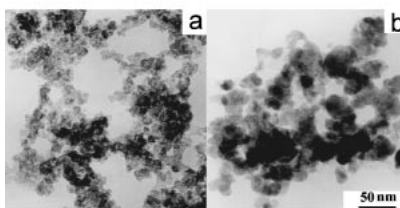
Feng Jiao, Bin Yue, Kake Zhu, Dongyuan Zhao, and Heyong He

772 **Carbon-doped Anatase TiO_2 Powders as a Visible-light Sensitive Photocatalyst**

Carbon-doped TiO_2 powders in an anatase phase colored yellow were fabricated. Carbons were located at oxygen sites. Carbon-doped TiO_2 showed photocatalytic activities for the decomposition of IPA to CO_2 via acetone under visible light (400–530nm) irradiation.

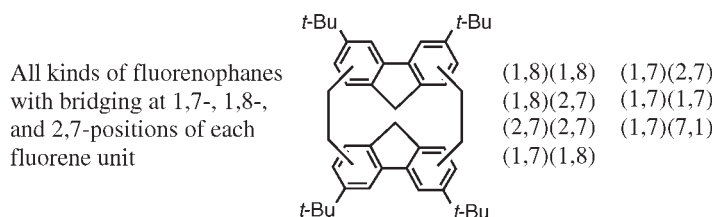


Hiroshi Irie, Yuka Watanabe, and Kazuhito Hashimoto

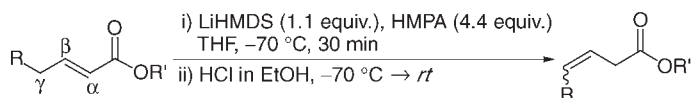
774 **Novel Synthesis of Nanocrystalline Gallium Nitride Powder from Gallium(III)-Urea Complex**

Nanocrystalline gallium nitride (GaN) powders with intense photoluminescence were synthesized from Ga(III)-urea complex at 500–600 °C. The synthesis temperature strongly influence the particle size and the optical quality.

Yu Qiu and Lian Gao

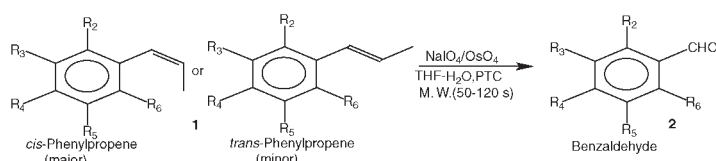
776 **Preparation and Structural Properties of Novel Fluorenophanes**

Akihiko Tsuge, Hideaki Nishimoto, Tetsuji Moriguchi, and Kazunori Sakata

778 **“Syn-Effect” in the Conversion of (*E*)- α,β -Unsaturated Esters to the Corresponding β,γ -Unsaturated Esters**

The relative degree of “*syn-effect*” depending on the γ -substituents R;
 $F^- \cong \text{BnO}^- > \text{CH}_3^- > \text{CH}_3\text{CH}_2^- > (\text{CH}_3)_2\text{CH}^- > \text{BnS}^- > \text{Ph}^- > (\text{CH}_3)_3\text{C}^-$

Samar Kumar Guha, Atsushi Shibayama, Daisuke Abe, Yutaka Ukaji, and Katsuhiko Inomata

780 **Microwave-promoted Synthesis of Methoxylated Benzaldehydes from Natural *cis*-Phenylpropenes Using $\text{NaIO}_4/\text{OsO}_4$ (cat.)**

(a) and (b) $\text{R}_2=\text{R}_4=\text{R}_5=\text{OMe}$; $\text{R}_3=\text{R}_6=\text{H}$ (c) $\text{R}_3=\text{R}_4=\text{R}_5=\text{OMe}$; $\text{R}_2=\text{R}_6=\text{H}$
 (d) $\text{R}_3=\text{R}_4=\text{OCH}_2\text{O}$; $\text{R}_2=\text{R}_5=\text{R}_6=\text{H}$ (e) $\text{R}_3=\text{R}_4=\text{OMe}$; $\text{R}_2=\text{R}_5=\text{R}_6=\text{H}$ (f) $\text{R}_4=\text{OMe}$; $\text{R}_2=\text{R}_3=\text{R}_5=\text{R}_6=\text{H}$

Arun K. Sinha, Bhupendra P. Joshi, and Ruchi Acharya

Additions and Corrections782 **DNA Dissolves Single-walled Carbon Nanotubes in Water**

Naotoshi Nakashima, Shingo Okuzono, Hiroto Murakami, Tonau Nakai, and Kenichi Yoshikawa