

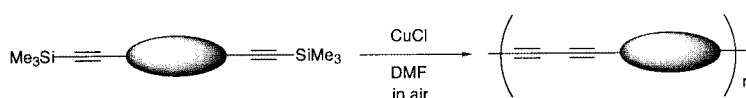
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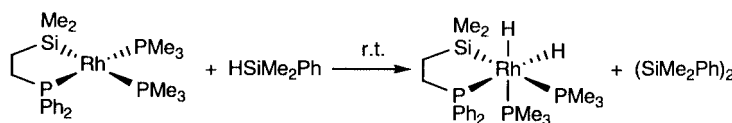
Copyright © 2001 The Chemical Society of Japan

- 950 **Homo-Coupling Polycondensation of Bis(alkynylsilane)s Mediated by Copper(I) Chloride: A New Synthesis of Poly(arylenebutadiynylene)s**



Yasushi Nishihara, Tsuyoshi Kato, Jun-ichi Ando, Atsunori Mori, and Tamejiro Hiyama

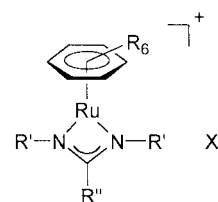
- 952 **Dehydrogenative Coupling of Monohydrosilanes Mediated by (2-Phosphinoethyl)silylrhodium(I) Complex**



Masaaki Okazaki, Shin Ohshitanai, Hiromi Tobita, and Hiroshi Ogino

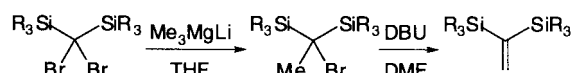
- 954 **Isolable Yet Highly Reactive Cationic Organoruthenium(II) Amidinates, $[\text{Ru}(\eta^6\text{-C}_6\text{R}_6)(\eta\text{-amidinate})]^+\text{X}^-$, Showing Signs of Coordinative Unsaturation: Isoelectronic Complexes of $\text{Ru}(\eta^5\text{-C}_5\text{Me}_5)(\eta\text{-amidinate})$**

Coordinatively unsaturated organoruthenium amidinates, $[\text{Ru}(\eta^6\text{-C}_6\text{R}_6)(\eta\text{-amidinate})]^+\text{X}^-$, were isolated. π -Coordination of the amidinate ligand as a stabilizing factor was suggested by the X-ray crystallography and DFT calculation.



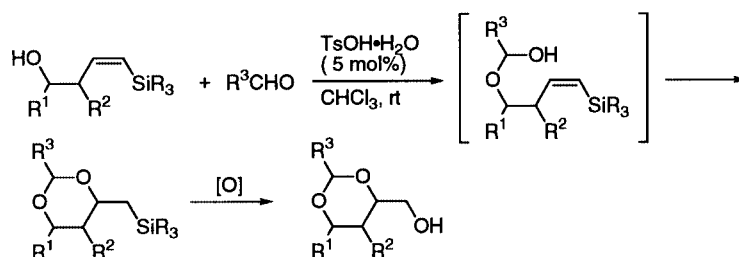
Taizo Hayashida, Yoshitaka Yamaguchi, Karl Kirchner, and Hideo Nagashima

- 956 **A Facile Synthesis of 1,1-Disilylethenes via Me_3MgLi -Induced Monomethylation of Dibromodisilylmethanes**

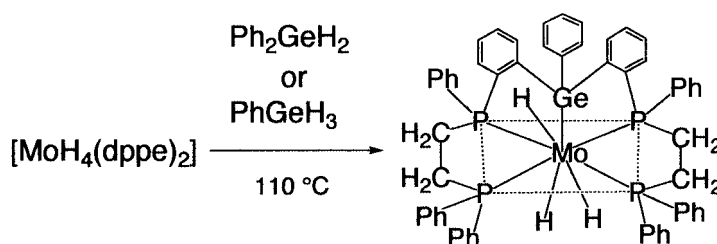


Atsushi Inoue, Junichi Kondo, Hiroshi Shinokubo, and Koichiro Oshima

958 Acid-Catalyzed Cyclization of Vinylsilanes Bearing a Hemiacetal Group

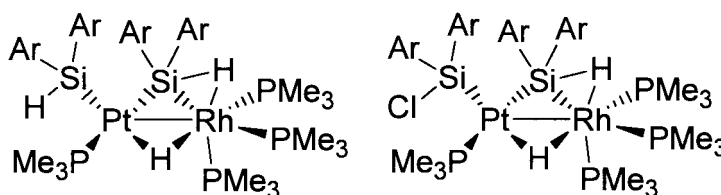


Katsukiyo Miura, Tatsuyuki Takahashi, Hisashi Nishikori, and Akira Hosomi

960 Molybdenum Hydrido Complex Containing a Novel Quinquidentate (*P,P,Ge,P,P*) Ligand

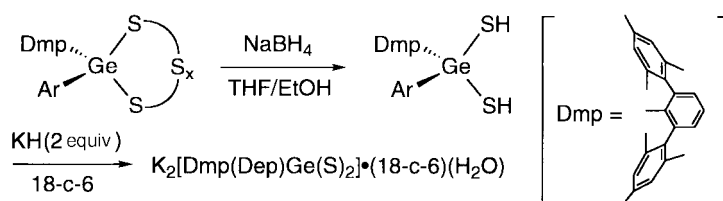
Makoto Minato, Ryo Hirabayashi, Takaomi Matsumoto, Yoshitaka Yamaguchi, and Takashi Ito

962 Rh–Pt Heterobimetallic Complexes with Unsymmetrically Bridging Organosilyl Ligands: Crystal Structure and Dynamic Behavior in Solution



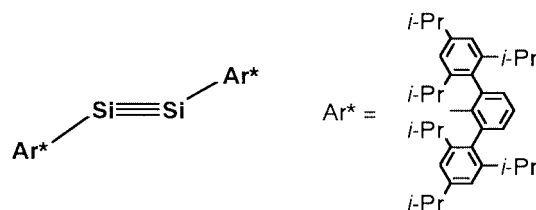
Makoto Tanabe and Kohtaro Osakada

964 Sterically Protected Dipotassium Germanedithiolate

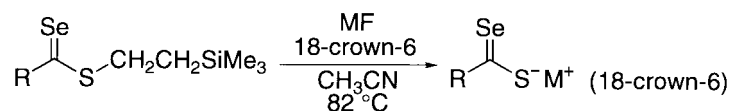


Tsuyoshi Matsumoto and Kazuyuki Tatsumi

966 A Silicon–Silicon Triple Bond Surrounded by Bulky Terphenyl Groups



Nozomi Takagi and Shigeru Nagase

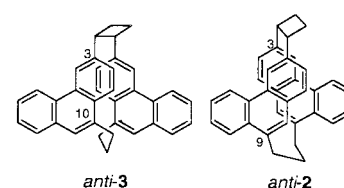
968 **The First Alkali Metal Selenothioates: Synthesis and Molecular Structure**

M = K, Rb, Cs

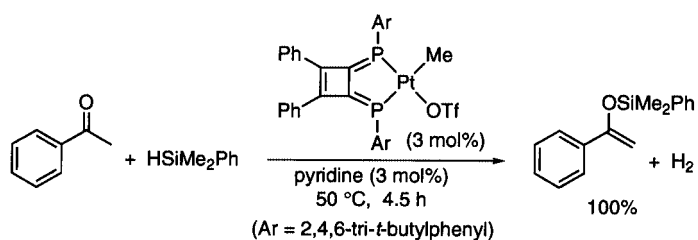
Osamu Niyomura, Kiyotaka Sakai, Toshiaki Murai, Shinzi Kato, Shigehiro Yamaguchi, and Kohei Tamao

970 **Synthesis and Fluorescence Emission Behavior of *anti*-[2.3](3,10)Phenanthrenophane: Overlap between Phenanthrene Rings Required for Excimer Formation**

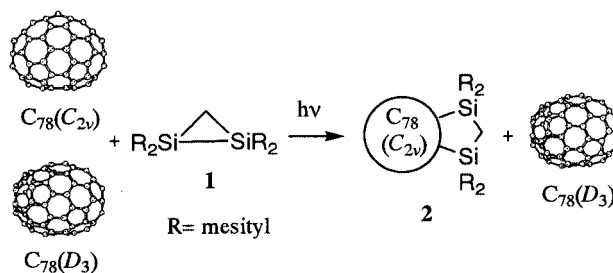
anti-[2.3](3,10)Phenanthrenophane **3** exhibited monomer fluorescence, in a remarkable contrast with the excimer fluorescence emission from *anti*-[2.3](3,9)phenanthrenophane **2** with slightly larger overlap between phenanthrene rings than in *anti*-**3**.



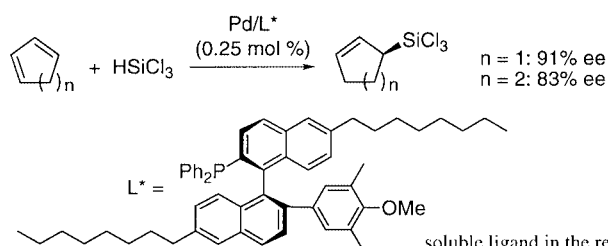
Yosuke Nakamura, Takahiro Fujii, and Jun Nishimura

972 **Dehydrogenative Silylation of Ketones Catalyzed by Diphosphinidencyclobutene-Coordinated Platinum(II) Complexes**

Fumiya Ozawa, Shogo Yamamoto, Seiji Kawagishi, Masatomi Hiraoka, Shintaro Ikeda, Tatsuya Minami, Shigekazu Ito, and Masaaki Yoshifuji

974 **Photochemical Cycloaddition of C₇₈ with Disilirane**

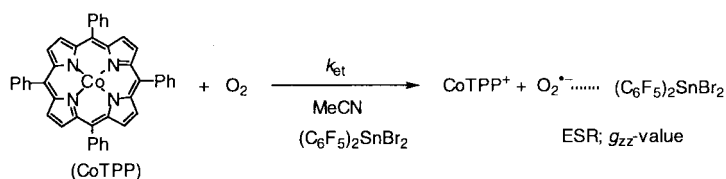
Aihong Han, Takatsugu Wakahara, Yutaka Maeda, Yasuyuki Niino, Takeshi Akasaka, Kazunori Yamamoto, Masahiro Kako, Yasuhiro Nakadaira, Kaoru Kobayashi, and Shigeru Nagase

976 **Preparation of a New MOP Ligand Containing a Long-Chain Alkyl Group and Its Use for Palladium-Catalyzed Asymmetric Hydrosilylation of Cyclic 1,3-Dienes**

Jin Wook Han and Tamio Hayashi

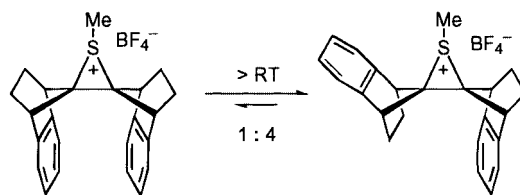
soluble ligand in the reaction system

978 **Quantitative Evaluation of Lewis Acidity of Organotin Compounds and the Catalytic Reactivity in Electron Transfer**



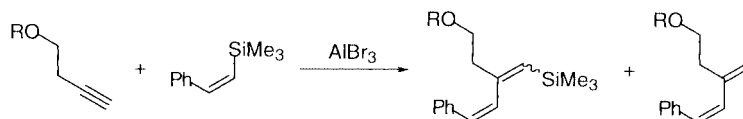
Kei Ohkubo, Tomoyoshi Suenobu, Hiroshi Imahori, Akihiro Orita, Junzo Otera, and Shunichi Fukuzumi

980 **Methyl Sulfonium Salts of 9,9'-Bibenzonorbornenyliene Episulfides: Preparation and Isomerization**



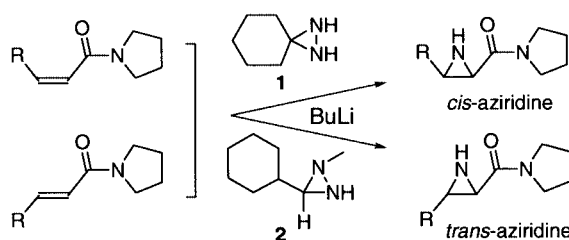
Yoshiaki Sugihara, Yui Aoyama, and Juzo Nakayama

982 **Lewis Acid Mediated Intermolecular Vinylsilylation of Alkynes**



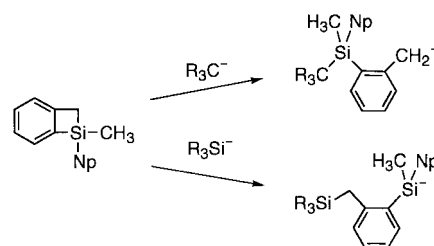
Naoki Asao, Kazuyuki Nabatame, and Yoshinori Yamamoto

984 **Highly Diastereoselective Aziridination of α,β -Unsaturated Amides Using Diaziridine**



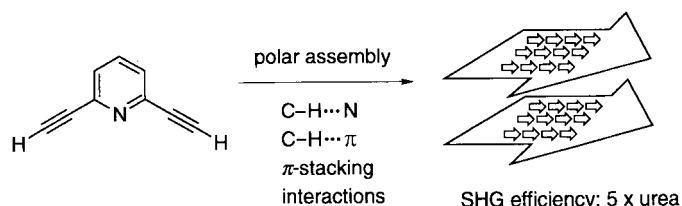
Hiroyuki Ishihara, Yoshio N. Ito, and Tsutomu Katsuki

986 **Regioselective Ring Opening of 1-Methyl-1-(1-naphthyl)-2,3-benzosilacyclobut-2-ene by Carbanion and Silyl Anion**



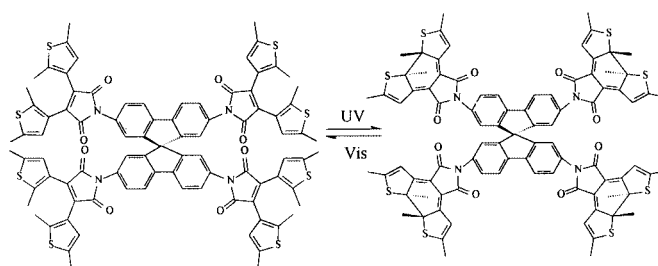
Kazuya Uenishi, Ichiro Imae, Eiji Shirakawa, and Yusuke Kawakami

- 988 **Polar Assembly of 2,6-Diethynylpyridine through C(sp²)-H...N, C(sp)-H... π and π - π Stacking Interactions: Crystal Structure and Nonlinear Optical Properties**



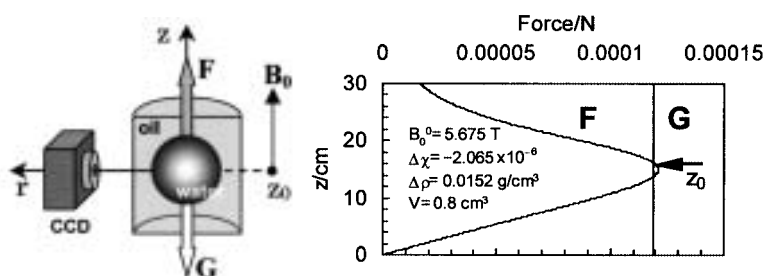
Masakazu Ohkita, Takanori Suzuki, Keitaro Nakatani, and Takashi Tsuji

- 990 **A Novel Photochromic Amorphous Molecular Material Based on Bisthienylethene with a Spiro-linker**



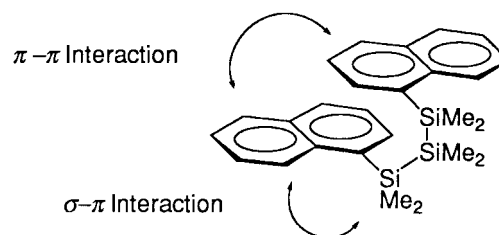
He Tian, Bingzhi Chen, and Pei-Hua Liu

- 992 **Variation of Susceptibility as Observed by Magnetic Levitation of Liquid Droplets**



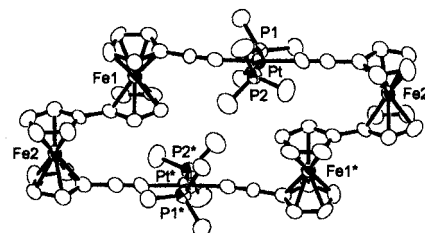
Toma Fujita, Ceco Dushkin, Masayoshi Nawa, and Seiichiro Nakabayashi

- 994 **π - π and σ - π Interactions in α,ω -Dinaphthyl and -Dianthryl Oligosilanes in Solution**



Takashi Karatsu, Toshifumi Shibata, Atsuko Nishigaki, Keijiro Fukui, and Akihide Kitamura

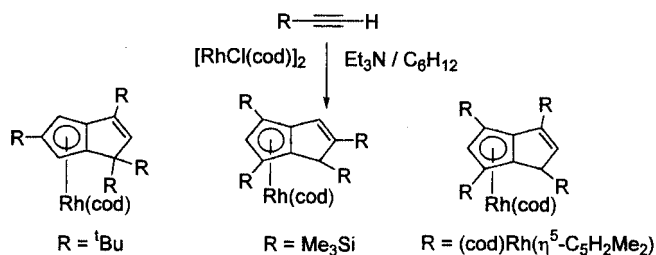
- 996 **Synthesis and Redox Property of Cyclic Mixed-Metal Complexes from Diethynylbiferrocene**



Yukie Mori, Takeshi Kasai, Toru Takesada, Hiroaki Komatsu, Hiroshi Yamazaki, and Masa-aki Haga

- 998 **Unprecedented Rhodium-Mediated Tetramerization of Bulky Terminal Alkynes Leading to Hydropentalenyl-rhodium Complexes**

Hiroaki Komatsu, Yasunobu Suzuki, and Hiroshi Yamazaki



- 1000 **One-Dimensional PbS/Polymer Nanocomposite of Core/Sheath Structure Fabricated by Hydrothermal Polymerization and Simultaneous Sulfidation**

Jing-hui Zeng, Yu Zhu, Jian Yang, Yuanfang Liu, and Yi-Tai Qian

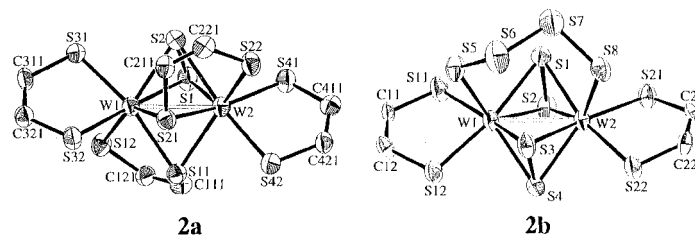
Nanocomposite of PbS/Poly(vinyl acetate) with core/sheath structure was fabricated by a novel hydrothermal polymerization and simultaneous sulfidation (HPSS) process.



- 1002 **Photochromism of Dinuclear Tungsten Complexes with Disulfur and Ethylene-1,2-dithiolate Ligands**

Takashi Shibahara, Kasumi Nishiura, Masanobu Tsuboi, Haruo Akashi, and Genta Sakane

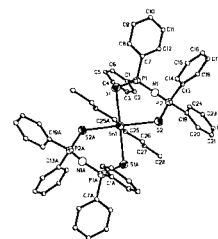
The tungsten complex **2a** shows photochromism, but **2b** does not.



- 1004 **Synthesis, Structure and Optical Refractive Effect of Dibutyltin(IV) Complex of [Ph₂P(S)NP(S)Ph₂]⁻**

Yunyin Niu, Yuxiao Wang, Yinglin Song, Shixiong Liu, Hegen Zheng, and Xinquan Xin

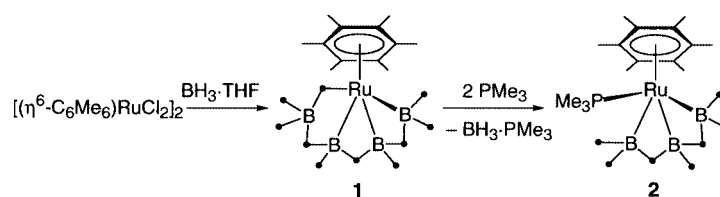
Reaction of *n*-Bu₂SnCl₂ with K[Ph₂P(S)NP(S)Ph₂] in CH₃CN gives the spirocyclic complex {*n*-Bu₂Sn-[Ph₂P(S)NP(S)Ph₂]₂} in which π-π stacking interactions by the phenyl rings exist. Its optical responses to the incident light exhibit strong refractive effect with $n_2 = 5.4 \times 10^{-18} \text{ m}^2 \text{ W}^{-1}$ in a $1.2 \times 10^{-4} \text{ mol dm}^{-3}$ DMF solution.



- 1006 **Synthesis, Structure, and Phosphine-Induced Degradation of a Ruthenapentaborane Cluster with a Sterically Demanding Hexamethylbenzene Ligand**

Yasuro Kawano, Hiroyuki Kawakami, and Mamoru Shimoi

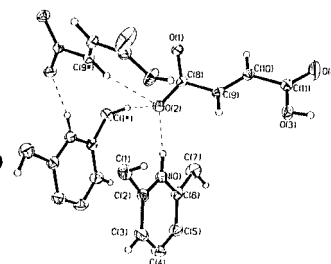
A ruthenaborane cluster **1** was synthesized. Compound **1** undergoes cluster degradation through the action of PMe₃ to afford **2**.



1008 **Crystal Structure of 2,6-Dimethylpyridinium Hydrogen Fumarate: Hydrogen Bonds of C(sp³)-H...O, C(sp²)-H...O and N⁺-H...O-(sp³)**

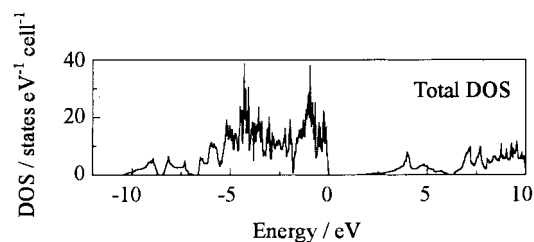
Yuan Jiang Pan, Zhi Min Jin, Cui Rong Sun, and Chong Wen Jiang

A salt of 2,6-dimethylpyridinium hydrogen fumarate was synthesized. Its crystal structure shows not only hydrogen bond of N⁺-H...O⁻(sp³), but also that of C(sp³)-H...O, C(sp²)-H...O at the same site of oxygen.



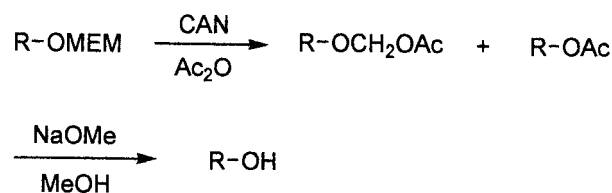
1010 **First-Principles Energy Band Calculation for ZnSb₂O₆ with Trirutile-Type Structure**

Shigenori Matsushima, Takumi Tanizaki, Hiroyuki Nakamura, Moriyasu Nonaka, and Masao Arai



1012 **Cleavage of 2-Methoxyethoxymethyl Ethers Catalyzed by Cerium(IV) Ammonium Nitrate (CAN) in Acetic Anhydride**

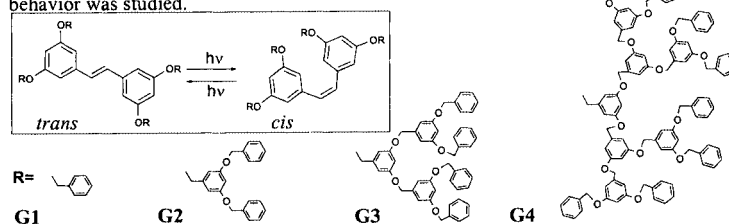
Kiyoshi Tanemura, Tsuneo Suzuki, Yoko Nishida, Koko Satsumabayashi, and Takaaki Horaguchi



1014 **The First Synthesis of Stilbene Dendrimers and their Photochemical *trans-cis* Isomerization**

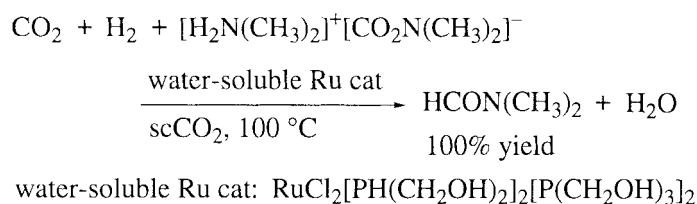
Takuo Mizutani, Masashi Ikegami, Ritsuko Nagahata, and Tatsuo Arai

Stilbene dendrimers were synthesized and their excited state behavior was studied.



1016 **Water-Soluble Trialkylphosphine-Ruthenium(II) Complexes as Efficient Catalysts for Hydrogenation of Supercritical Carbon Dioxide**

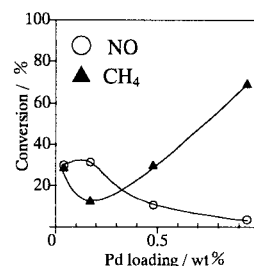
Yoshihito Kayaki, Tomoyuki Suzuki, and Takao Ikariya



1018 Improvement of the Catalytic Performance of Pd/WO₃/ZrO₂ in the Selective NO-CH₄-O₂ Reaction by the Addition of Water Vapor

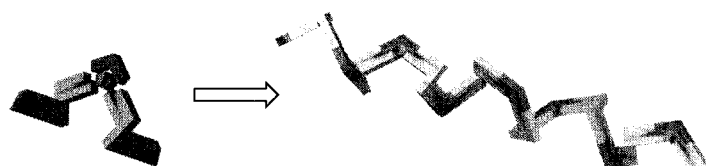
Kazu Okumura, Tetsuji Kusakabe, Naoko Yasunobu, and Miki Niwa

The Pd/WO₃/ZrO₂ catalyst exhibited activity for the NO-CH₄-O₂ reaction in the presence of water vapor when WO₃ monolayer covered the ZrO₂ surface. The selectivity of methane conversion for NO reduction was considerably improved by the addition of 10% water vapor.



1020 A Rational Design of Helix: Absolute Helix Synthesis by Binaphthyl-Salen Fusion

Yoshio Furusho, Takeshi Maeda, Takeshi Takeuchi, Nobuaki Makino, and Toshikazu Takata

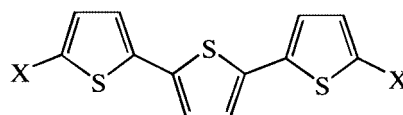


A rational design of helical molecules is presented. Fusing chiral binaphthyl units and metallosalen complexes resulted in formation of molecules which inevitably adopt certain helical conformations.

1022 Liquid Crystalline Behavior of α -Substituted Oligothiophenes

Takashi Yamada, Reiko Azumi, Hiroaki Tachibana, Hideki Sakai, Masahiko Abe, Peter Bäuerle, and Mutsuyoshi Matsumoto

Thermal behaviors of α -disubstituted oligothiophenes were investigated. 5,5''-Dicyanoterthiophene exhibited a nematic liquid crystalline phase at 205 °C on cooling.

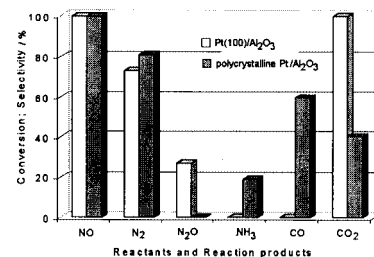


X = H, Br, CH₃, CHO, CN

1024 NO Reduction by CH₄ over Well-Structured Pt Nanocrystal Supported on γ -Al₂O₃

Ioan Balint, Akane Miyazaki, and Ken-ichi Aika

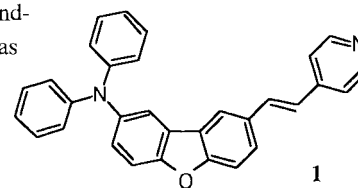
In the case of well-structured Pt(100) nanoparticles supported on alumina the formation of CO as well as of the NH₃ is suppressed. On the other hand, the classically prepared Pt/Al₂O₃ (usual) exhibits relatively high selectivity to CO and NH₃.



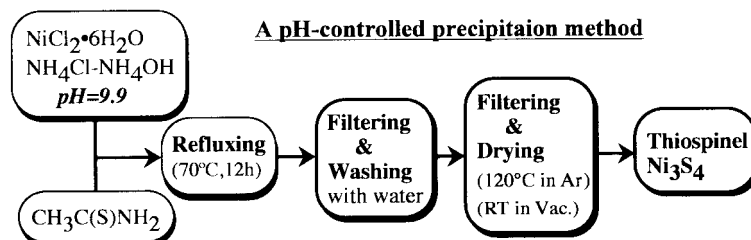
1026 Effective Second-Order Nonlinear Optical Coefficient of a Novel Transparent Material: *N,N*-Diphenyl-8-[2-(4-pyridyl)ethenyl]dibenzofuran-2-ylamine

Jun Kawamata, Masaharu Akiba, and Yoshio Inagaki

N,N-Diphenyl-8-[2-(4-pyridyl)ethenyl]dibenzofuran-2-ylamine (**1**) has newly been synthesized and its second-order nonlinear optical coefficient has been examined. As a result, it is found that **1** exhibits a promising second harmonic generation (SHG) characteristics.



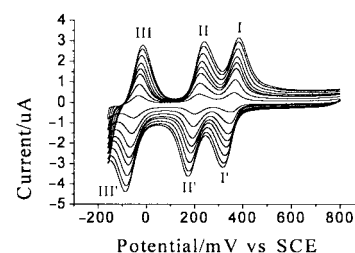
1028 A Solution Route to Synthesize Nickel Thiospinels



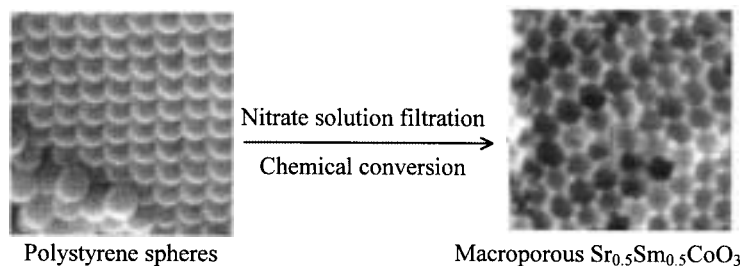
Youichi Shimizu and Tomoyasu Yano

1030 Hybrid Inorganic–Organic Material Containing 12-Molybdophosphate Bulk-Modified Carbon Paste Electrode

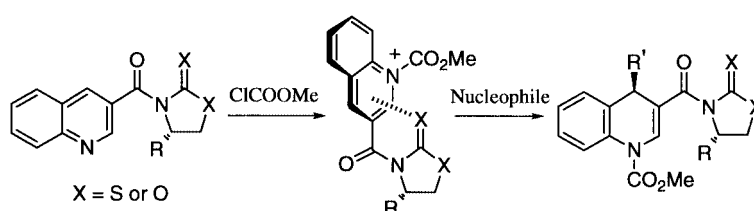
The hybrid inorganic-organic electroactive material containing 12-molybdophosphate was synthesized and firstly used as a bulk-modifier to fabricate a chemically modified carbon paste electrode.



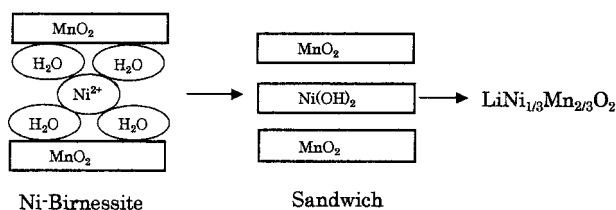
Xiuli Wang, Enbo Wang, and Changwen Hu

1032 Preparation of Ordered Macroporous $\text{Sr}_{0.5}\text{Sm}_{0.5}\text{CoO}_3$ as Cathode for Solid Oxide Fuel Cells

Fanglin Chen, Changrong Xia, and Meilin Liu

1034 Regio- and Stereoselective Addition of Ketene Silyl Acetals to Quinolinium Salts by Way of an Intramolecular $\text{C}=\text{O}\cdots\text{Qu}^+$ or $\text{C}=\text{S}\cdots\text{Qu}^+$ Interaction

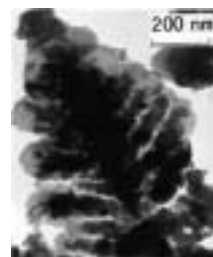
Shinji Yamada and Chisako Morita

1036 Hydrothermal Soft Chemical Synthesis of $\text{Ni}(\text{OH})_2$ -Birnessite Sandwich Layered Compound and Layered $\text{LiNi}_{1/3}\text{Mn}_{2/3}\text{O}_2$ 

Qi Feng, Yaohua Xu, Koji Kajiyoshi, and Kazumichi Yanagisawa

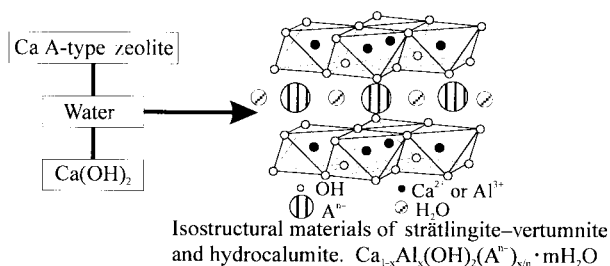
1038 Sonochemical Coreduction Route to Single-Crystalline InSb Dendrites

TEM image of single-crystalline InSb dendrite obtained at 25° C, 100 W·cm⁻¹



Yujie Xiong, Yi Xie, Guoan Du, Xianming Liu, and Xiaobo Tian

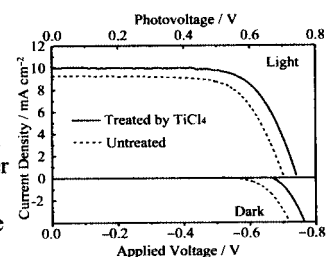
1040 Hydration of Ca A-Type Zeolite and Ca(OH)₂



Motoki Uehara and Takahiko Sasaki

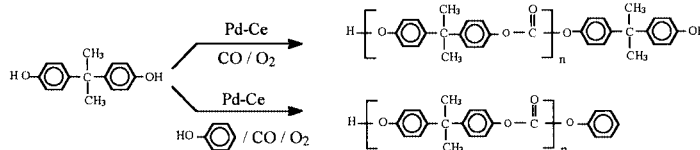
1042 Nanocrystalline TiO₂ Electrodes Prepared by Water-Medium Screen Printing Technique

Mesoporous TiO₂ electrodes with good performance as dye-sensitized solar cells were prepared for the first time using the water-based TiO₂ paste. The paste was obtained by powerful mixing of TiO₂ powder with cellulosic thickener, employing the ultrasonic horn and three roller grinding mill.



Dongshe Zhang, Seigo Ito, Yuji Wada, Takayuki Kitamura, and Shozo Yanagida

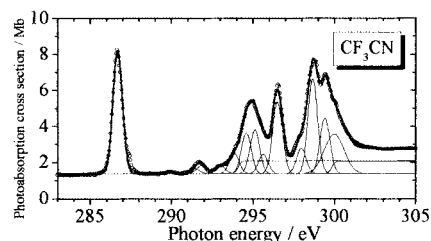
1044 A One-Step Synthesis of Reactive Polycarbonate Precursors by the Coupled Oxidative Carbonylation of Bisphenol-A and Phenol with Carbon Monoxide



Won Bae Kim and Jae Sung Lee

1046 Assignment of the C K-Shell Photoabsorption Spectrum of CF₃CN Molecule

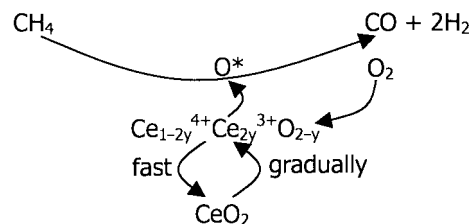
Photoabsorption spectrum of CF₃CN in the C K-shell region contains a variety of resonances. The assignment is established with the angular distribution data for the energetic fragment ions.



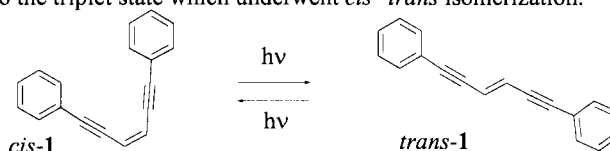
Kazumasa Okada, Shuichiro Tanimoto, Toshio Ibuki, Ko Saito, and Tatsuo Gejo

1048 Extraordinary Catalytic Behavior of CeO₂ in Partial Oxidation of Methane

Hyun-Seog Roh, Ki-Won Jun, Seung-Chan Baek, and Sang-Eon Park

Schematics of producing syngas over CeO₂ catalyst.1050 Novel Finding of the Effect of Triple Bond on the Photochemical *cis-trans* Isomerization of C=C Double Bond

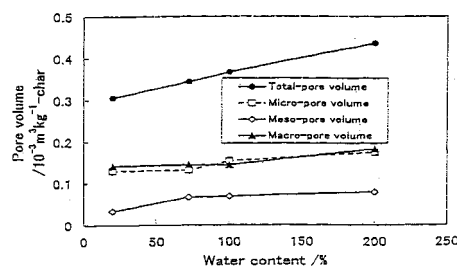
Hirokazu Sakakibara, Masashi Ikegami, Kakuzo Isagawa, Sachiko Tojo, Tetsuro Majima, and Tatsuo Arai

Both *cis*- and *trans*-1,2-bis(phenylethynyl)ethene (1) gave fluorescence emission with considerably high quantum yield and intersystem crossing to the triplet state which underwent *cis-trans* isomerization.

1052 Manufacturing of Activated Carbon Using Furfural Residue as Raw Material

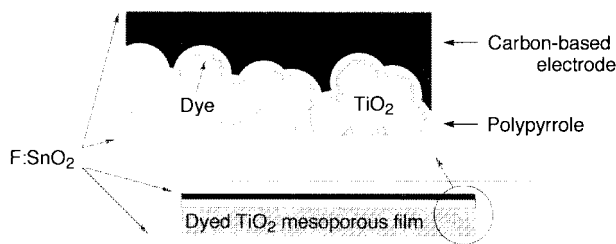
Yanhua Wang, Kiyoshi Noda, and Shoji Kagawa

Pore volumes of macropore of the activated carbon from furfural residue increase markedly, by self-activation, with the water content in the residue at 1173 K



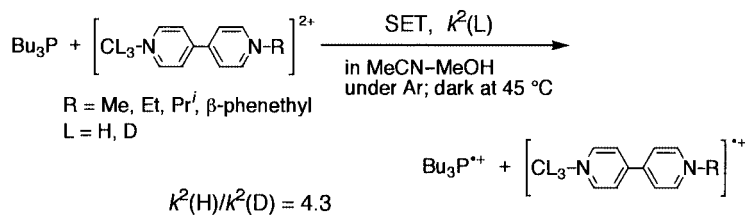
1054 Improved Solid-State Dye Solar Cells with Polypyrrole using a Carbon-Based Counter Electrode

Takayuki Kitamura, Masato Maitani, Mizuho Matsuda, Yuji Wada, and Shozo Yanagida



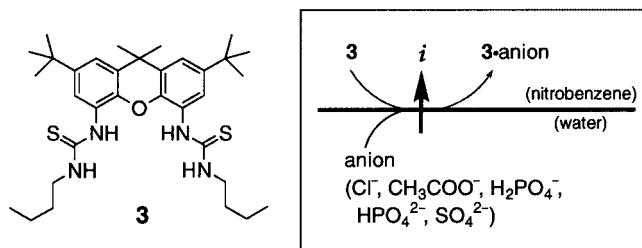
1056 Kinetic Deuterium Isotope Effect in Single-Electron Transfer Occurring from Tributylphosphine to Viologens

Shinro Yasui, Kenji Itoh, Atsuyoshi Ohno, and Norihiro Tokitoh



1058 **Facilitated Transfer of Hydrophilic Anions across the Nitrobenzene–Water Interface by a Hydrogen-Bonding Ionophore: Applicability for Multianalyte Detection**

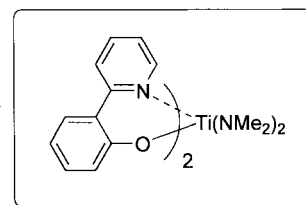
Seiichi Nishizawa, Tomoyuki Yokobori, Takeshi Shioya, and Norio Teramae



1060 **Ethylene Polymerization Behavior of New Titanium Complexes Having Two Phenoxy–Pyridine Chelate Ligands**

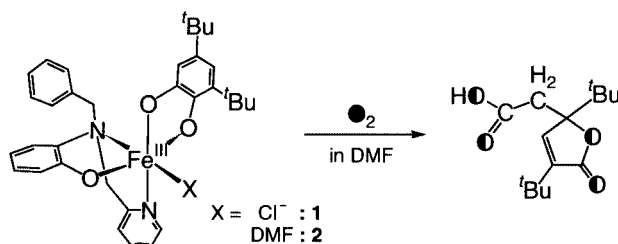
Yoshihisa Inoue, Takashi Nakano, Hidetsugu Tanaka, Norio Kashiwa, and Terunori Fujita

The complex / co-catalyst system displays high ethylene polymerization activity and produces high molecular weight polyethylene.



1062 **Biomimetic Intradiol-Cleavage of Catechols with Incorporation of Both Atoms of O₂: The Role of the Vacant Coordination Site on the Iron Center**

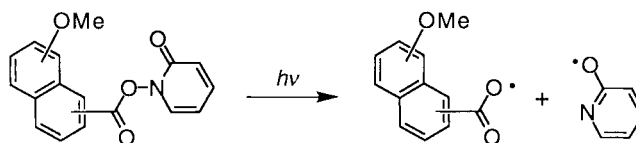
Seiji Ogo, Ryo Yamahara, Takuzo Funabiki, Hideki Masuda, and Yoshihito Watanabe



1064 **Generation and Behavior of Naphthoyloxy Radicals in Photocleavage of 1-(Naphthoyloxy)-2-pyridones**

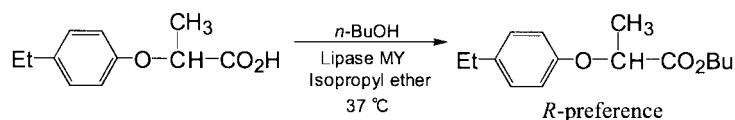
Toshihiro Najiwara, Katsunori Segawa, and Hirochika Sakuragi

Methoxylated naphthoyloxy radicals show much lower reactivities in decarboxylation, addition to olefins, and hydrogen-atom abstraction, compared with benzoyloxy and unsubstituted naphthoyloxy radicals.



1066 **Effects of Chemical Modification of Lipase on Its Enantioselectivity in Organic Solvents**

Shin-ichi Ueji, Hiroyuki Tanaka, Takahito Hanaoka, Ai Ueda, Keiichi Watanabe, Kunihiro Kaihatsu, and Yasuhito Ebara

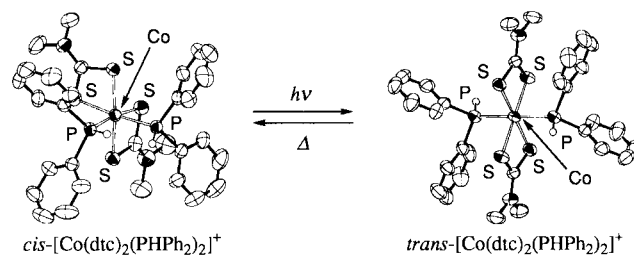


$E = 14$ for native lipase MY

$E = 306$ for Z(NO₂)-modified lipase MY

- 1068 **A Geometrical Isomeric Pair of Novel Cobalt(III) Complexes Containing Diphenylphosphine: *cis*- and *trans*-[Co(dtc)₂(PPh₂)₂]⁺BF₄⁻ (dtc = *N,N*-Dimethyldithiocarbamate)**

Takayoshi Suzuki, Satoshi Iwatsuki, Hideo D. Takagi, and Kazuo Kashiwabara



- 1070 **Histidine and Thermal Copolymers of Amino Acids Containing Histidine as Prebiotic Inhibitor for the Template-Directed Formation of Oligoguanylate on a Poly(C) Template**

Kunio Kawamura and Kazuhiro Kuranoue

Thermal copolymer of amino acids containing histidine and histidine itself catalyzes the degradation of activated nucleotide monomer and the formation of pyrophospho-capped oligoguanylate

