

分析センター機器使用研究業績(1993.10~1994.9)

A. 元素・質量分析部門

<GC-MS>

A.Ishii,I.Takaki,J.Nakayama and M.Hoshino

Syntheses and Reactions of 4- and 8-Phosphathiophenetriptycenes

Tetrahedron Lett.,**34**,8255-8258(1993).

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A.Ishii,R.Yoshioka,J.Nakayama and M.Hoshino

4,8-Diphosphathiophenetriptycenes

Tetrahedron Lett.,**34**,8259-8262(1993).

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A.Ishii,T.Akazawa,T.Maruta,J.Nakayama,M.Hoshino and M.Shiro

The First Isolable Dithiirane by Oxidation of a Dithietane

Angew.Chem.Int.Ed.Engl.,**33**,777-779(1994).

<DX303,QP-1000>

A.Miyashita,T.Hasegawa,S.Nakano,M.Hirano and H.Nohira

Synthesis and Negative Photochromic Properties of

Spirohenzoselenazolino-benzopyranes

Chem.Express,**10**,pp.93-96(1993).

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T.Chiba,A.Miyashita,H.Nohira and H.Takaya

BICHEP-Ru Complexes, Highly Efficient Catalysts For Asymmetric Hydrogenation of Carbonyl Compounds

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メタセシス重合触媒, (総説)

化学工業誌,44,7,PP.20-27(1993).

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リビング開環メタセシス重合, (総説)

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チタノセン錯体によるメタンからのエチレン合成

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A.Miyashita,M.Hotta and Y.Saida

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Activation of Methane Promoted by NeoheptylPt(II)Complexes. Isolation of MethylPt(II)Complexes

Chemistry Letters,in press,1994.

<Elemental Analysis,MS(JEOL DX-303)>

T.Machiguchi,T.Takeno,T.Hasegawa and Y.Kimura

A Simple Synthesis of Pure 2-Aminotroponimine,the Nitrogen Analogue of Tropolone
Chem.Lett.,**1992**,1821-1822.

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T.Machiguchi,T.Hasegawa and Y.Kano

General Synthesis,Spectroscopic Property,and Dipole Moment of 2-Substituted
Tropothiones *Bull.Chem.Soc.Jpn.*,**66**,3699-3706(1993).

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Tropothione Undergoes Cycloadditions in a Way Different from Tropone:A
Comparative Study of Their Reactivities on Cycloaddition with Fulvene
J.Am.Chem.Soc.,**115**,11536-11541(1993).

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8,8-Dicyano-2,3-benzoheptafulvene from the Reaction of 2,3-Benzotropone with
Malononitrile
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<AM400>

J.Nakayama,T.Kawamura,K.Kuroda and A.Fujita

Uncatalyzed Side-chain Halogenation of Polymethyl-substituted Thiophenes
Tetrahedron Lett.,**34**,5725(1993).

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H.Kamayama,R.Hasemi,K.Kuroda and J.Nakayama

Oxidation of Congested Thiophene 1,1-Dioxides with m-Chloroperbenzoic Acid.
Formation of Epoxides and Thiete 1,1-Dioxides and Steric Acceleration

Heteroatom.Chem.,**4**,445–454(1993).

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K.S.Choi,K.Sawada,H.Dong,M.Hoshino and J.Nakayama

A One-pot Synthesis of Substituted Thieno[3,2-*b*]thiophenes and Selenolo[3,2-*b*]selenophenes.

Heterocycles,**38**,143–149(1994).

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J.Nakayama,A.Mizumura,I.Akiyama,T.Nihio and I.Iida

Synthesis and Characterization of Tetramethylethanediselenoamide

Chem.Lett.,77–80(1994).

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M.Kuroda,J.Nakayama,M.Hoshino,N.Furusho and S.Ohba

Synthesis and Properties of α -Oligothiophenes Carrying Cofacially Oriented Thiophene Rings through Peri Positions of Naphthalenes

Tetrahedron Lett.,**1994**,35,3957.

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A General Synthesis of Aromatic Compounds Carrying Two Neopentyl Groups on Adjacent Positions

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Chemistry Letters,in press,**1994**.

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Y.Kubo,S.Maeda,M.Nakamura and S.Tokita

A Uranyl Ion-sensitive Chromoionophore based on Calix[6]arene

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A Simple Synthesis of Pure 2-Aminotroponimine,the Nitrogen Analogue of Tropolone

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M.Higashi,H.Yamaguchi,T.Machiguchi,T.Hasegawa and H.Baumann

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Frontier Orbitals along Intrinsic Reaction Coordinates of Sulfur-containing[4+2] and [8+2]Cycloadditions

J.Org.Chem.,**58**,1122–1127(1993).

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T.Machiguchi,S.Yamabe,T.Minato,T.Hasegawa and T.Asao

Novel Cage Molecules from the Reaction of 8,8-Dicyanoheptafulvene with

Cyclopentadienide Anion: Structure and Mechanism

J.Am.Chem.Soc.,**115**,1669–1676(1993).

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T.Machiguchi, T.Hasegawa and Y.Kano

General Synthesis, Spectroscopic Property, and Dipole Moment of 2-Substituted Trophionones

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Chem. Lett., **1994**, 1677–1678.

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M.Sato, H.Asano and S.Akabori Novel Dimeric Structure in the Pd(II) Complex of 1,10-dithia[2](2,6)pyridino[2](1,1')ferrocenophane. A Connected Metal-metal Interaction

J. Organomet. Chem., **452**, 105–109 (1993).

<AM-400, ARX400>

M.Sato, H.Shigeta, M.Sato and S.Akabori Synthesis, some reactions, and molecular structure of the Pd(BF₄)₂ complex of 1,1'-bis(diphenylphosphino)ferrocene

J. Organomet. Chem., **458**, 199–204 (1993).

<AM-400, ARX400>

M.Sekino, M.Sato, A.Nagasawa and K.Kikuchi

Tungsten Carbonyl Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf). Reverse Relationship between NMR Chemical Shifts of the Carbonyl ¹³C and the ¹⁸³W Nuclei and Molecular Structure of WCl(CO)₂(dppf)(CPh)

Organometallics, **13**, 1451–1455 (1994).

<AM-400, ARX400>

M.Sato,K.Suzuki,H.Asano,M.Sekino,Y.Kawata,Y.Habata and A.Akabori

Molecular Structure and Electrochemical Properties of the Pt(II)Complex of 1,1'-Bis(methylthio)ferrocene and the Pd(II)Complexes of 1,4,7-Trithia[7]-and 1,5,9-Trithia[9](1,1')-ferrocenophanes

J.Organomet.Chem.,**470**,263-269(1994).

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M.Sato,Y.Hayashi,H.Sintate,M.Katada,and S.Kawata

Oxidized Fe(II) Ferrocenylacetylde Complexes. A Novel Type of Mixed-Valence Complex

J.Organomet.Chem.,**471**,179-184(1994).

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M.Sato,H.Shintate,Y.Kawata,M.Sekino,M.Kataba, and S.Kawata

Oxidized Ruthenium Ferrocenylacetylde Complexes,[η (-C₅H₅)L₂RuCCFe]PF₆ and [η -C₅Me₅)L₂RuCCFc]PF₆ (L=Phosphines). Electron-Delocalized Heterobinuclear Mixed-Valence Complexes

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Redox Behavior of

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C. 表面複合分析部門

<EPHA>

加藤寛、石川幸毅、吉川敷治

溶融 Al-Cu 合金への固体銅の溶解過程に及ぼす溶湯中の銅量の影響
鑄物、第 66 巻、第 2 号,pp.119-124(1994).

D. 分光分析部門

<FT-IR SYSTEM2000 NIR FT-Raman>

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Thermal decay of the optical activity in the light-induced metastable state of an $\text{Na}_2[\text{Fe}(\text{CN})_5\text{NO}] \cdot 2\text{H}_2\text{O}$ crystal

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E. X線回折部門

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亀ヶ谷洋一, 小林秀彦, 渡部文子, 三田村孝

白金錯体の部分的な熱分解と電解還元を組み合わせた新規な白金担持カーボン基体電極の作製

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粉体及び粉末冶金, Vol.40, pp.998-1001(1993).

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Formation Mechanism ZrSiO_4 Powders

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合成ジルコンとアルミナの in-situ reaction を利用したムライト-ジルコニア及びムライト-ジルコニア-アルミナ系複合焼結体の微構造変化と機械的特性

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複合焼結体の微構造変化と高温強度特性

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小林秀彦, 荻野博幸, 中村和正, 森利之, 山本博, 三田村孝

BaCO₃-M₂O₃ 混合粉末(M:La,Nd,Sm,Gd,Ho,Y)から反応焼結により合成した BaM₂O₄ の
秩序-無秩序転移

J.Ceram.Soc.Japan,Vo1.102,pp.583-586(1994).

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Y.Kubota,M.Ashizuka,E.Ishida and T.Mitamura

Influence of Temperature on Elastic Modulus and Strength of

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<X線単結晶構造解析装置>

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