

《センターより》

分析センター機器使用研究業績(1994.10～1995.9)

A. 元素・質量分析部門【質量分析装置(GC/MS,Q-MS)、示差熱分析装置(TG/DTA)、高分解能ICP質量分析装置、ICP発光分光装置】

藤倉 俊幸, 坂本 和彦, 時田 澄男, 下沢 隆

機器分析におけるピーク相互情報量の利用

J.Chem.Software **2**,125-134 (1995)

Y.Shibasaki,G.Wen,H.Nakahara and K.Fukuda

Mono- and multilayers of new comb-like polymers containing terminal vinyl groups in the side chains

Thin Solid Films **244**,732-735 (1994)

曹 俊彦, 楢崎 久武

技術報告テトラヒドロホウ酸(Ⅲ)を結合させたイオン交換樹脂を用いる水素化物発生-原子吸光法によるセレン及びアンチモンの定量

分析化学,**43**,169-172 (1994)

H.Narasaki

Determination of trace elements in river Arakawa by hydride-generation atomic absorption spectrometry

知識情報学会誌,**4**,79-85 (1994)

楢崎 久武

荒川の微量元素と知識情報

知識情報学会ニューズレター,**29**,3 (1994)

Y.Aoki and H.Nohira

Synthesis and Properties of Optically Active α -Trifluoromethylbenzyl Derivatives for Ferroelectric Liquid Crystals

Liquid Crystals,**18**,197-205 (1995)

D.Terunuma

Preparation of New 7-silanorbornene Derivatives and Their Reaction with Some Nucleophiles

Bull.Chem.Soc.Jpn.,**67**,2763-2767 (1994)

T.Machiguchi

Tropothione S-Sulfide.A New Class of Thiosulfine

Chem.Lett.,103-104 (1995)

B. 磁気共鳴部門【超伝導核磁気共鳴装置(AM400,ARX400,AC200)、核磁気共鳴装置(FX-90Q)】

A.Ohashi,T.Aida and J.Tsunetsugu

Some physical properties of methyl derivatives of *o*-pleiadienequinones

J.Mol.Struct.,**324**,75-82 (1994)

K.Morita,T.Aida,K.Morinaga and J.Tsunetsugu

A five fused ring non-benzenoid quinone containing a seven-membered ring : Synthesis and properties of cyclo-hept[*f,g*]aceanthrylene-5,8-dione and 1,2-dihydrocyclo-hept[*f,g*]ace anthrylene-5,8-dione

*J.Chem.Soc.Perkin Trans.***1**,1215-1220 (1994)

K.Ishihara,A.Nagasawa,K.Umemoto, H,Ito and K.Saito

A kinetic study of boric acid-borate interchange in aqueous solution by ^{11}B NMR spectroscopy
Inorg.Chem.,**33**,3811-3816 (1994)

M.Abe,K.Isobe,K.Kida,A.Nagasawa and A.Yagasaki

Intramolecular rearrangements of cyclooctadienylrhodium(I) fragments supported on a vanadiumoxide cluster as evidenced by dynamic ^{17}O NMR spectroscopy
J.Cluster Sci.,**5**,565-571 (1994)

K.Unoura,R.Kikuchi,A.Nagasawa,Y.Kato and Y.Fukuda

Correlation between ^{95}Mo NMR chemical shift and rate constants of oxygen atom transfer reactions of various cis-dioxobis(dithiocarbamate)-molybdenum(VI) complexes with PPh_3
Inorg.Chim.Acta,**228**,89-92 (1995)

J.Nakayama and K.Akimoto

Reactions of benzyne with sulfur compounds
Sulfur Reports,**16**,61-111 (1994)

T.Machiguchi

Tropothione S-Sulfide.A New Class of Thiosulfine
Chem.Lett.,103-104 (1995)

Y.Aoki and H.Nohira

Synthesis and Properties of Optically Active α -Trifluoromethylbenzyl Derivatives for Ferroelectric Liquid Crystals
Liquid Crystals,**18**,197-205 (1995)

D.Terunuma

Preparation of New 7-silanorbornene Derivatives and Their Reaction with Some Nucleophiles
Bull.Chem.Soc.Jpn.,**67**,2763-2767 (1994)

C. X線解析部門【X線回折装置(RAD-B)、4軸型単結晶X線構造解析装置】

K.Hiruta,S.Tokita and K.Nishimoto

Precise PPP Molecular Orbital Calculations of Excitation Energies of Polycyclic Aromatic Hydrocarbons. Part 1. On the Correlation between the Chemical Softness and the Absolute Hardness
J.Chem.Soc.,Perkin Trans.2,in press.

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

The first isolable dithiirane by oxidation of a dithietane
Angew.Chem.Int.Ed.Engl.,**33**,777-779 (1994)

H.Miura,R.Ansai and H.Kawai

Deuterium Exchange Reaction of Ethylbenzene over an $\text{Fe}_2\text{O}_3\text{-K}_2\text{CO}_3\text{-Cr}_2\text{O}_3$ Catalyst
React.Kinet.Catal.Lett.,**53**,323-329 (1994)

佐藤 英樹, 田口 裕之, 三浦 弘

イソブタン脱水素反応における担持白金触媒への酸化亜鉛の添加効果
石油学会誌,**38**,34-39 (1995)

亀ヶ谷 洋一, 小林 秀彦, 三田村 孝

白金錯体の部分熱分解と電解還元を用いた高分散性の白金担持カーボン基体電極の作製
電気化学, **63**, 122-127 (1995)

亀ヶ谷 洋一, 斉藤 純一, 小林 秀彦, 奥山 優, 三田村 孝

塗布・部分熱分解／電解還元法を用いた白金担持チタン基体電極の作製
電気化学, **63**, 225-229 (1995)

Y.Kamegaya, K.Sasaki, M.Oguri, T.Asaki, H.Kobayashi and T.Mitamura

Improved Durability of Iridium Oxide Coated Titanium Anode with Interlayers for Oxygen Evolution at High Current Density

Electrochimica Acta, **40**, 889-895 (1995)

K.Kakizaki, H.Sano, N.Hiratsuka and T.Namikawa

Magnetic Properties and Fine Structure of Acicular Barium Ferrite Particles

J.Magn.Soc.Jpn., **18**, S1, 246-248 (1994)

N.Hiratsuka, S.Tojo, E.Koshikawa and M.Fujita

Post-annealing and Substrate Temperature Effect on Perpendicular Anisotropy of RF Sputtered Baferrirete Films

J.Magn.Soc.Jpn., **18**, S1, 315-318 (1994)

平塚 信之, 東條 聡, 越川 衛一, 藤田 実

鉄過剰バリウムフェライト膜の垂直磁気異方性に対する基盤温度と成膜後熱処理の影響

電子情報通信学会論文誌, C-II, 12, 547-554 (1994)

D. 表面複合分析部門【表面複合分析装置(ESCA/AES)、分析走査電子顕微鏡(S-4100, S-24000)、走査電子顕微鏡(T-100)、走査プローブ顕微鏡(SPM/AFM)】

Y.Kanai, M.Shimizu, H.Uchida, H.Nakahara, C.G.Zhou, H.Maekawa and T.Katsube

Integrated taste sensor using surface photovoltage technique

Sensors and Actuators, **B20**, 175-179 (1994)

H.Miura, R.Ansai and H.Kawai

Deuterium Exchange Reaction of Ethylbenzene over an $\text{Fe}_2\text{O}_3\text{-K}_2\text{CO}_3\text{-Cr}_2\text{O}_3$ Catalyst

React.Kinet.Catal.Lett., **53**, 323-329 (1994)

佐藤 英樹, 田口 裕之, 三浦 弘

イソブタン脱水素反応における担持白金触媒への酸化亜鉛の添加効果

石油学会誌, **38**, 34-39 (1995)

N.Hiratsuka, S.Tojo, E.Koshikawa and M.Fujita

Post-annealing and Substrate Temperature Effect on Perpendicular Anisotropy of RF Sputtered Baferrirete Films

J.Magn.Soc.Jpn., **18**, S1, 315-318 (1994)

平塚 信之, 東條 聡, 越川 衛一, 藤田 実

鉄過剰バリウムフェライト膜の垂直磁気異方性に対する基盤温度と成膜後熱処理の影響

電子情報通信学会論文誌, C-II, 12, 547-554 (1994)

E. 分光分析部門【フーリエ変換赤外分光光度計(FT-IR)、走査顕微鏡FT-IR(アイリス)、FT-IRラマン】

Y.Furukawa,N.Yokonuma,M.Tatsumi,M.Kuroda and J.Nakayama

Raman studies of doped polythiophenes and the radical cation and dication of quinquethiophene

Mol.Cryst.Liq.Cryst.,**256**,113-120 (1994)

M.Liu,H.Nakahara,Y.Shibasaki and K.Fukuda

Effect of Cu(II)ion on the polycondensation of octadecyl esters of aromatic amino acids in monolayers at the air/water interface

Chem.Lett.,**1994**,783-786 (1994)

M.Liu,H.Nakahara,Y.Shibasaki and K.Fukuda

Molecular arrangement and polycondensation of octadecyl esters of aromatic amino acids in Langmuir-Blodgett films

Thin Solid Films,**237**,244-249 (1994)

M.Tanaka,R.Azumi,H.Tachibana,T.Nakamura,Y.kawabata,M.Matsumoto,T.Miyashita,W.Tagaki,H.Nakahara and K.Fukuda

Recognition properties of amphiphilic cyclodextrin monolayers at the air-water interface

Thin Solid Films,**244**,832-835 (1994)

H.Nakahara,K.Hayashi,Y.Shibasaki,K.Fukuda,T.Ikeda and M.Shishido

Molecular arrangements and polycondensation of long-chain esters of amino acids containing an aromatic ring in Langmuir-Blodgett films

Thin Solid Films,**244**,1055-1060 (1994)

M.Yudasaka,M.Tanaka,K.Sakata,S.Kurita,H.Nakahara,K.Fukuda,K.Kitahara and H.Nishi

Lateral intermolecular interaction in Langmuir-Blodgett films of octa-alkyl hydrogen phthalocyanines

Thin,Solid Films,**249**,109-112 (1994)

M.Liu,H.Nakahara,Y.Shibasaki and K.Fukuda

Conformational behaviors of synthetic copolypeptides in spread monolayers,built-up multilayers, and adsorbed films

J.Colloid Interface Sci.,**165**,491-496 (1994)

Z.Lu and H.Nakahara

Collapsing processes in stearic acid monolayer studies by Brewster angle microscope

Chem.Lett.,**1994**,2005-2008 (1994)

H.Nakahara,P.Z.Sun,K.Fukuda,N.Azuma,H.Nishi,H.Uchida and T.Katsube

Molecular organization and electrical behaviors in LB films of phthalocyanine derivatives containing eight alkyl chains

J.Materials Chem.,**5**,395-399 (1995)

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

Oxidized Ruthenium Ferrocenylacetylide Complexes, $[(\eta-C_5H_5)_2RuCCFe]PF_6$ and $[(\eta-C_5Me_5)_2RuCCFc]PF_6$ (L=Phosphines). Electron-Delocalized Heterobinuclear Mixed-Valence Complexes

Organometallics,**13**,1956-1962 (1994)