

ISSN 0023-6071

BULLETIN OF THE INSTITUTE
FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY

Vol. 63, No. 5~6

Published bi-monthly by

THE INSTITUTE FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY
KYOTO, JAPAN

December, 1985

(*Bull. Inst. Chem. Res., Kyoto Univ.*)

**INSTITUTE FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY**

Director

Hiroshi INAGAKI

Members of Council

Yoshichika BANDO	Kaoru FUJI	Tetsuya HANAI
Hiroshi INAGAKI	Makoto INOUE	Ken'ichi KATAYAMA
Ryozo KITAMARU	Michio KURATA	Masakazu MATSUI
Jun'ichi ODA	Shinzaburo OKA	Tatsuo OOI
Sumio SAKKA	Teruya SHINJO	Kenji SODA
Nobuyuki SUGITA	Toshio TAKADA	Mitsuru TAKANAMI
Hidekuni TAKEKOSHI	Tohru TAKENAKA	Natsu UYEDA

Publication Committee

Tetsuya HANAI	Sorin KIHARA	Michio KURATA
Seishi MATSUKI	Yoshimitsu NAGAO	Kenji SODA

Business Staff

Kageki KAGAWA	Shin HASEGAWA	Masayuki FUJISAWA
---------------	---------------	-------------------

History of Publications

Term	Vol.	Title	Published
Jan., 1929– Dec., 1947	1–16	化学研究所講演集 (The Reports of the Institute for Chemical Research)	Indeterminately
April, 1933	—	10 Jahre Institut für chemische Forschung (化学研究所創立十周年記念号)	—
March, 1949– Dec., 1949	17–19	化研講演集 (The Reports of the Institute for Chemical Research)	Indeterminately
March, 1950– Sept., 1952	20–30	化学研究所報告 (Bulletin of the Institute for Chemical Research)	Quarterly
Dec., 1951	—	The Commemoration Volume for the Silver Jubilee (化学研究所創立二十五周年記念号)	—
Jan., 1953 onwards	31 No. 1–	Bulletin of the Institute for Chemical Research (化学研究所報告)	Bi-monthly
Nov., 1966	44 No. 6	Special Issue on the Commemoration of the Fortieth Anniversary (化学研究所創立四十周年記念号)	—
Nov., 1976	54 No. 6	Special Issue on the Commemoration of the Fiftieth Anniversary (化学研究所創立五十周年記念号)	—

CONTENTS

Tadashi Kokubo and Jun'ichi Ikeda : Photoconductivity of Bi_2O_3 -Containing Glasses	361
Takeshi Mukoyama : Vacancy Cascade Following Inner-Shell Ionization	373
Kiyoshi Yase, Takashi Kobayashi and Natsu Uyeda : Direct Observation of Disorders of Molecular Stacking in Phthalocyanato-platinum (II) Epitaxial Film.....	383
The Papers Published by the Staff Members of the Institute from July 1984 to June 1985	393

ISSN 0023-6071

BULLETIN OF THE INSTITUTE
FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY

Vol. 63

Published bi-monthly by
THE INSTITUTE FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY
KYOTO, JAPAN

1985

(*Bull. Inst. Chem. Res., Kyoto Univ.*)

Contents of Volume 63, 1985

Mititaka Kubota, Kazushi Kanoda, Hiromasa Mazaki and Rintaro Katano: Relaxation of Laser-Induced Signals from a Superconducting Tunnel Junction	1
Masaru Sawamura and Hidekuni Takekoshi: Field Stabilization of the Alvarez Linac by Post Coupler	9
Takeshi Mukoyama: Relativistic Calculations of the $1s-2s$ Excitation Cross Sections of Hydrogen-Like Ions by Heavy-Charged Particle Impact.....	16
Takeshi Mukoyama: M-Shell Internal Ionization Accompanying Electron Capture	24
Kazushi Kanoda and Hiromasa Mazaki: Superconducting Transition of Bulk Granular Systems (Ta)	33
Seishi Matsuki, Kouya Ogino and Naoki Sakamoto: A Gas Target System for Nuclear Scattering Experiments with Broad Range Magnetic Spectrograph	40
Manabu Node, Takeo Kawabata, Eiichi Fujita and Kaoru Fuji: Hard Acid and Soft Nucleophile Systems 10. The Mechanistic Study for Debromination of <i>para</i> -Bromoanisole with Aluminum Chloride and Ethanethiol.....	47
Minami Matsui and Atsuhiro Oka: Transcription and Translation of the Kanamycin Resistance Transposon Tn 903	52
Heng Phala, Kiyoshi Kudo, Sadayuki Mori, and Nobuyuki Sugita: Tris (triphenylphosphine) rhodium (I) Chloride Catalyzed Synthesis of Methyl Formate from Methanol, Carbon Dioxide and Hydrogen in the Presence of a Tertiary Amine	63
Masayuki Shibuya, Kouhei Toyooka, Toshio Maeda and Seiju Kubota: Neocarzinostatin Chromophore: Synthesis and Structure of Naphtha- lenecarboxylic Acid Moiety.....	72
Motohisa Oobatake, Yasushi Kubota and Tatsuo Ooi: Optimization of Amino Acid Parameters for Correspondence of Sequence to Tertiary Structures of Proteins	82
Tomio Kimura, Nobuyoshi Esaki, Hidehiko Tanaka and Kenji Soda: Actions of <i>S</i> -(<i>N</i> -Methylthiocarbamoyl)-L-Cysteine and Its Oxygen Analog on Pyridoxal Enzymes	95
Takeshi Mukoyama and Hirohiko Adachi: Statistical Exchange Parameter and X-Ray Emission Rates	173
Tatsumi Kawaratani, Yasuyuki Nakayama and Tatsumi Mizogawa: Mea- surements of Positron Annihilation Rate in Low-Temperature Gaseous Nitrogen	177

Naotake Nakamura, Yukio Yoshimura, and Shin'ichi Yano: Studies of Thermal Expansion and Diffuse Scatterings in the Successive Phase Transitions of Cholesteryl 2, 2, 3, 3-Tetrafluoropionate (CTFP) by X-ray Diffraction Method	186
Yoshio Oka, and Naokazu Koizumi: Formation of Unoriented Form I Poly (vinylidene fluoride) by High-Rate Quenching and its Electrical Properties	192
Kenji Tadano, Shin'ichi Yano, and Yoshio Muroga: Dielectric Relaxation and Molecular Motion of Ploy (tert-Butyl Crotonate)	207
Hironobu Kasano, Hiroki Kurata, Takashi Kobayashi, and Natsu Uyeda: An Application of Electron Energy Loss Spectroscopy to the Study of Residual Aluminum in Raney Nickel Catalyst	216
Tetsuya Hanai, Katsuhisa Sekine, and Naokazu Koizumi: Improved Evaluation of Electrical Phase Parameters in a Dielectric Theory for Concentrated Suspensions of Spherical Particles	227
Kozo Iwauchi, Yasunori Ikeda, Naokazu Koizumi, and Yoshicika Bando: Dielectric and Magnetic Relaxations in $\text{BaO} \cdot 2\text{TiO}_2 \cdot 2\text{Fe}_2\text{O}_3$ and $\text{BaO} \cdot 2\text{SnO}_2 \cdot 2\text{Fe}_2\text{O}_3$	241
Yasuo Kita, and Naokazu Koizumi: Dielectric Cell for Deformable Solids.....	249
Koji Asami, and Akihiko Irimajiri: Does "One-Sphere" System Conform to the Wagner Equation for Simple Binary Dispersions? An Experimental Assessment by Use of a Ball of Glass, Steel or Hydrated Gelatin Suspended in Aqueous Solutions	259
Soichi Hayashi, Kazumi Kurita, Noriyuki Kimura, Junzo Umemura, and Tohru Takenaka: FT-IR Studies on Molecular Structure and Orientation of a Liquid Crystal, 4'-N-octyl-4-cyanobiphenyl	276
Nobuo Donkai, and Hiroshi Inagaki: Fundamental Study on Thin Layer Chromatography I. Solvent Strength of Mixture for Polymeric Samples.....	313
Kanji Kajiwara, Nobuo Donkai, Yoshinori Fujiyoshi, Yuzuru Hiragi, Hiroshi Urakawa, and Hiroshi Inagaki: Some Remarks on Imogolite Mesophase	321
Hisashi Odani, Masaki Uchikura, Yukimasa Ogino, and Michio Kurata: Permeation of Gases in Poly (2-vinylpyridine)-Block-Polyisoprene	333
Tadashi Kokubo and Jun'ichi Ikeda: Photoconductivity of Bi_2O_3 -Containing Glasses	361
Takeshi Mukoyama: Vacancy Cascade Following Inner-Shell Ionization	373
Kiyoshi Yase, Takashi Kobayashi, and Natsu Uyeda: Direct Observation of Disorders of Molecular Stacking in Phthalocyanatoplatinum (II) Epitaxial Film	383

Note

- Yukio Kawakami, Jun Hiratake, Yukio Yamamoto, and Jun'ichi Oda :
Kinetic Treatment of Kinetic Resolution of Racemic Acid Anhydrides
with Chiral Amines 100

Reviews

- Atsuyoshi Ohno, and Satoshi Ushida : Simulation of NAD(P)⁺-NAD(P)H
Redox System 104
- Hajime Katayama : 1-Benzazepines 120
- Yoshimitsu Nagao, and Masahito Ochiai : Design and Study of New
Tumor Inhibitors 132
- Sakae Uemura, Kouichi Ohe, and Nobuyuki Sugita : Carbonylation of
Organometallic Compounds with Carbon Monoxide via Transmetallation
..... 156
- Eiji Ikada : Dielectric Properties of the Oligomers of Chain Polymers 296
- Asako Hirai, Fumitaka Horii, and Ryozo Kitamaru : Solid-State High-
Resolution Carbon-13 NMR Studies of Celluloses 341

Author Index to Volume 63, 1985

Adachi, Hirohiko	173
Asami, Koji	259
Bando, Yoshichika	241
Donkai, Nobuo	313, 320
Esaki, Nobuyoshi	95
Fuji, Kaoru	47
Fujita, Eiichi.....	47
Fujiyoshi, Yoshinori	320
Hanai, Tetsuya.....	227
Hayashi, Soichi	276
Hiragi, Yuzuru	320
Hirai, Asako	340
Hiratake, Jun	100
Horii, Fumitaka	340
Ikada, Eiji	296
Ikeda, Jun'ichi	361
Ikeda, Yasunori	241
Inagaki, Hiroshi	313, 321
Irimajiri, Akihiko.....	259
Iwauchi, Kozo	241
Kajiwara, Kanji	320
Kanoda, Kazushi	1, 33
Kasano, Hironobu	216
Katano, Rintaro	1
Katayama, Hajime	120
Kawabata, Takeo.....	47
Kawakami, Yukio	100
Kawaratani, Tatsumi	177
Kimura, Noriyuki	276
Kimura, Tomio.....	95
Kita, Yasuo	249
Kitamaru, Ryozo	340
Kobayashi, Takashi.....	216, 383
Koizumi, Naokazu	192, 227, 241, 249
Kokubo, Tadashi	361
Kubota, Mititaka	1
Kubota, Seiju	72
Kubota, Yasushi	82
Kubo, Kiyoshi	63
Kurata, Hiroki	216

Kurata, Michio	332
Kurita, Kazumi	276
Maeda, Toshio	72
Matsui, Minami	52
Matsuki, Seishi	40
Mazaki, Hiromasa	1, 33
Mizogawa, Tatsumi	177
Mori, Sadayuki	63
Mukoyama, Takeshi	16, 24, 173, 373
Muroga, Yoshio	207
Nagao, Yoshimitsu	132
Nakamura, Naotake	186
Nakayama, Yasuyuki	177
Node, Manabu	47
Ochiai, Masahito	132
Oda, Jun'ichi	100
Odani, Hisashi	332
Ogino, Kouya	40
Ogino, Yukimasa	332
Ohe, Kouichi	156
Ohno, Atsuyoshi	104
Oka, Atsuhiro	52
Oka, Yoshio	192
Oobatake, Motohisa	82
Ooi, Tatsuo	82
Phala, Heng	63
Sawamura, Masaru	9
Sakamoto, Naoki	40
Sekine, Katsuhsisa	227
Shibuya, Masayuki	72
Soda, Kenji	95
Sugita, Nobuyuki	63, 156
Tadano, Kenji	207
Takekoshi, Hidekuni	9
Takenaka, Tohru	276
Tanaka, Hidehiko	95
Toyooka, Kouhei	72
Uchikura, Masaki	332
Uemura, Sakae	156
Umemura, Junzo	276
Urakawa, Hiroshi	321
Ushida, Satoshi	104
Uyeda, Natsu	216, 383
Yamamoto, Yukio	100

Yano, Shin'ichi	186, 207
Yase, Kiyoshi	383
Yoshimura, Yukio	186

京都大学化学研究所報告 第63巻 第5～6号

昭和61年2月24日印刷
昭和61年3月3日発行 **【非売品】**

京都府宇治市五ヶ庄
京都大学化学研究所
編集兼発行人 稲垣 博

番号 540 大阪市東区内本町橋詰町55
印刷所 前田印刷株式会社大阪支店
電話 (06) (941) 4891 (代表)

印刷者 前田 優