

OUMS'07

**OSAKA UNIVERSITY MACROMOLECULAR
SYMPOSIUM**

ON

Chemistry, Physics, and Biology
in Macromolecular Science

February 19-21, 2007

**Icho Kaikan, Osaka University (Suita Campus), Osaka,
Japan**

Preface

Macromolecular science is an interdisciplinary science among chemistry, physics, and biology, and the interaction among scientists of the different fields is prerequisite to develop the science. However, nowadays science tends to specialize in very narrow fields, and the barrier between different fields is so high that interdisciplinary interactions are difficult. The main aim of this symposium is to give graduate students and researchers an opportunity to interact with distinguished scientists of different fields.

This symposium is the 6th Osaka University Macromolecular Symposium (OUMS'07) entitled "Chemistry, Physics, and Biology in Macromolecular Science." We request the invited speakers to present talks which interest all graduate students and researchers of polymer physical chemistry, polymer synthesis, and protein chemistry major, and also all the participants to make active discussions giving fruitful interactions among different fields.

The OUMS'07 is sponsored by the Program of Initiatives for Attractive Education in Graduate Schools ("Interactive Education in Graduate School"), the Osaka University 21st Century Center of Excellence Program ("Creation of Integrated EcoChemistry"), and the Osaka University International Exchange Program in Macromolecular Science. We express our sincere thanks to these sponsors.

We look forward to meeting you in Osaka, and making good friendship and fruitful scientific interactions.

The organizing committee of the OUMS'07

Organizing Committee of the OUMS'07

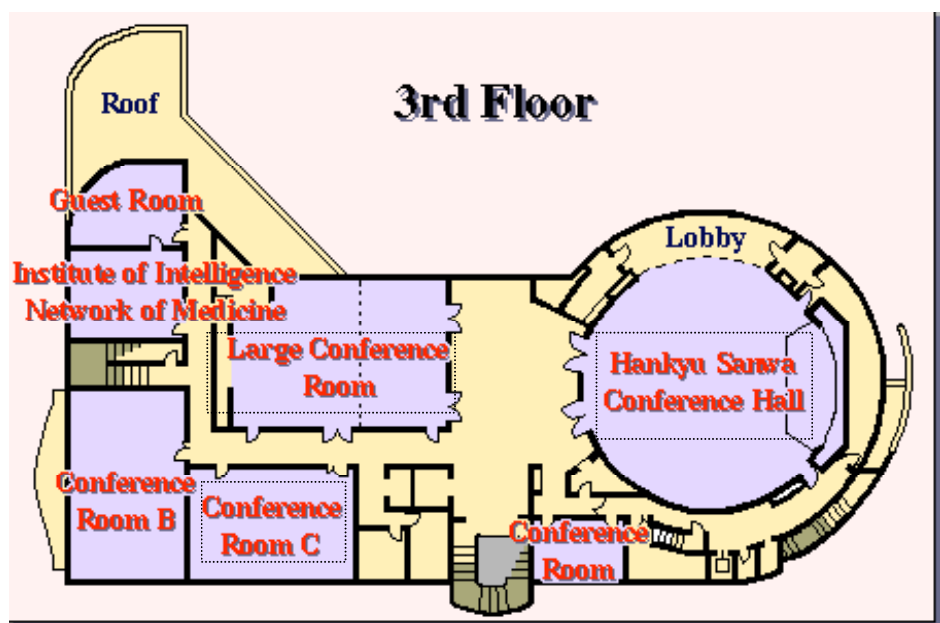
Chairman: Takahiro Sato

Members: Sadahito Aoshima
Akira Harada
Akihito Hashidzume
Tadashi Inoue
Shokyoku Kanaoka
Fumitoshi Kaneko
Tatsuya Kawaguchi
Takashi Norisuye
Taka-aki Okamura
Kenji Okuyama
Toshiyuki Shikata
Yoshinori Takashima
Ken Terao
Osamu Urakawa
Hiroyasu Yamaguchi
Hitoshi Yamamoto

Secretary: Rie Komiya

Program

Feb 19	Monday	Feb 20	Tuesday	Feb 21	Wednesday
9:00	Registration	9:00	T. Koide	9:00	S. Kawaguchi
10:00	Opening	9:40	J. Bella	9:40	S. Sakurai
10:10	G. R. Strobl	10:20	Coffee Break	10:20	Coffee Break
10:50	H. Akutsu	10:40	T. Inoue	10:40	W.-Y. Sun
11:30	T. D. James	11:20	M. Matsuo	11:20	S. Takamizawa
12:10	Lunch	12:00	Lunch	12:00	Lunch
13:30	E. W. Kaler	13:20	H. Guo	13:20	R. Chandrasekaran
14:10	S. Kanaoka	14:00	Y. Takashima	14:00	A. Nakagawa
14:50	Coffee Break	14:40	H. Paik	14:40	S. O. Smith
15:10	T. Chang	15:20	Coffee Break	15:20	Closing
15:50	T. Nicolai	15:40 17:10	Poster Session II		
16:30 18:00	Poster Session I	18:30 20:30	Reception		



All invited lectures will be given in Hankyu Sanwa Conference Hall.

Poster Sessions I & II will be held in Large Conference Room and Conference Room C.

February 19 (Monday)

Opening Remarks

10:00-10:10

Takahiro Sato (*Osaka University*)

Session I

10:10-10:50 **Chairperson: T. Sato**

L1 **Gert R. Strobl** (*University of Freiburg, Germany*)

Laws Controlling Crystallization and Melting in Bulk Polymers

10:50-11:30 **Chairperson: H. Yamamoto**

L2 **Hideo Akutsu** (*Osaka University*)

Structural Analysis of Biological Supramolecular Systems by Solid-State NMR

11:30-12:10 **Chairperson: S. Aoshima**

L3 **Tony David James** (*University of Bath, UK*)

Molecular Recognition Using Boronic Acids

12:10-13:30

Lunch

Session II **Chairperson: A. Harada**

13:30-14:10

L4 **Eric W. Kaler** (*University of Delaware, USA*)

Polymer Synthesis in Complex Fluids

14:10-14:50

L5 **Shokyoku Kanaoka** (*Osaka University*)

Recent Advances in Base-Stabilized Living Cationic Polymerization: New Catalysts and Selective Synthesis of Stimuli-Responsive Polymers

14:50-15:10

Coffee Break

Session III Chairperson: Y. Goto

15:10-15:50

L6 Taihyun Chang (*Pohang University of Science and Technology, Korea*)
HPLC Characterization of Polymers

15:50-16:30

L7 Taco Nicolai (*Universite de Maine, France*)
Aggregation and Gelation of Globular Proteins

16:30-18:00

Poster Session I

February 20 (Tuesday)

Session IV Chairperson: K. Okuyama

9:00-9:40

L8 Takaki Koide (*Niigata University of Pharmacy and Applied Life Sciences*)
Chemical Biology of Collagen and Collagen-binding Proteins

9:40-10:20

L9 Jordi Bella (*University of Manchester, UK*)
The Collagen Triple Helix at High Resolution: Findings from Model Peptide Structures

10:20-10:40

Coffee Break

Session V Chairperson: G. R. Strobl

10:40-11:20

L10 Tadashi Inoue (*Osaka University*)
Molecular Rheology of Amorphous Polymers: Significance of Viscoelastic Segments

11:20-12:00

L11 Masaru Matsuo (*Nara Women's University*)
Polarized Small Angle Light Scattering from Polymer Gels Prepared by Quenching the Solutions

12:00-13:20

Lunch

Session VI Chairperson: S. Aoshima

13:20-14:00

- L12 Haiqing Guo (*Peking University, China*)**
Preparation of Luminescent Polymeric Materials with Supramolecular Assemblies as Constructional Units

14:00-14:40

- L13 Yoshinori Takashima (*Osaka University*)**
Preparation and Properties of Rotaxanes Formed by Cyclodextrins and Oligo(thiophene)s with Cyclodextrin Stoppers

14:40-15:20

- L14 Hyun-jong Paik (*Pusan National University, Korea*)**
Controlled Bio-conjugation between Polymers and Proteins

15:20-15:40

Coffee Break

15:40-17:10

Poster Session II

18:30-20:30

Reception

February 21 (Wednesday)

Session VII Chairperson: E. W. Kaler

9:00-9:40

L15 Seigou Kawaguchi (*Yamagata University*)
Conformational Properties of Cylindrical Brushes Consisting of Rod-like Polymers

9:40-10:20

L16 Shinichi Sakurai (*Kyoto Institute of Technology*)
Perpendicular Orientation of Cylindrical Microdomains in a Block Copolymer Thick Film

10:20-10:40

Coffee Break

Session VIII Chairperson: T. D. James

10:40-11:20

L17 Wei-Yin Sun (*Nanjing University, China*)
Coordination Polymers with Multidentate Organic Ligands

11:20-12:00

L18 Satoshi Takamizawa (*Yokohama City University*)
Transformable Single-Crystal Gas Adsorbent Based on 1D Coordination Polymer Skeletons: Structural Study of Gas Inclusion State through Dynamic Adsorbing Action

12:00-13:20

Lunch

Session IX Chairperson: H. Akutsu

13:20-14:00

L19 Rengaswami Chandrasekaran (*Purdue University, USA*)
Polysaccharide Architecture and Functionality

14:00-14:40

L20 Atsushi Nakagawa (*Osaka University*)
Structure Determination of Biological Macromolecular Assemblies

14:40-15:20

L21 Steven O. Smith (*Stony Brook University, USA & Osaka University*)
Structural Biology of Membrane Proteins: From Molecular Machines to Disease

Closing Remarks

15:20-15:30

Akira Harada (*Osaka University*)

Poster Sessions

Poster Session I February 19 16:30 - 18:00

Location of panel for IPX	X: 1 - 20	Large Conference Room
	X: 21 - 34	Conference Room C
Obligation time of presentation for IPX	X: odd number	16:30-17:15
	X: even number	17:15-18:00

IP1 Ryosuke Aburaki, Shokyoku Kanaoka, Sadahito Aoshima

Department of Macromolecular Science, Graduate School of Science, Osaka University

Cationic Copolymerization of Benzaldehyde Derivatives with Vinyl Monomers

IP2 Hiroaki Shimomoto, Shokyoku Kanaoka, Sadahito Aoshima

Department of Macromolecular Science, Graduate School of Science, Osaka University

Synthesis of End-Functionalized Polymers with Various Sequences by Living Cationic Polymerization and Their Thermosensitive Behavior

IP3 Emiko Tachikawa, Hiroshi Nishizaki, Shokyoku Kanaoka, Sadahito Aoshima

Department of Macromolecular Science, Graduate School of Science, Osaka University

A Novel Termination Method for Living Cationic Polymerization of Vinyl Ethers Based on Friedel-Crafts Alkylation

IP4 Hidehiro Yamamoto, Shokyoku Kanaoka, Sadahito Aoshima

Department of Macromolecular Science, Graduate School of Science, Osaka University

Living Cationic Polymerization of Styrene Derivatives with Electron-withdrawing Groups

IP5 Naoki Kameda, Taka-aki Okamura, Hitoshi Yamamoto

Department of Macromolecular Science, Graduate School of Science, Osaka University

Synthesis and Properties of Nickel Benzenedithiolate derivative Having NH \cdots S Hydrogen Bonds and Bulky Substituents

IP6 **Kazuki Tsuchihashi, Takashi Matsuhira, Taka-aki Okamura, Hitoshi Yamamoto**

Department of Macromolecular Science, Graduate School of Science, Osaka University.

Synthesis and Characterization of o-Coumaric Acid Derivatives Having Switchable Intramolecular Hydrogen Bond Moiety Using Photoisomerization

IP7 **Motofumi Osaki, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University.

Polymerization of Lactones Initiated by Cyclodextrins: Effects of Cyclodextrins on the Initiation and Propagation

IP8 **Atsuhisa Miyawaki, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University.

Supramolecular Structures Formed by Cinnamamide α -Cyclodextrin Having an Adamantyl Group

IP9 **Tatsuhiko Oka, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Preparation of Supramolecular Bilayer Spherical Molecules Using Cyclodextrins

IP10 **Hiroto Takenaka, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Synthesis and Characterization of Dendritic Antibody Supramolecules Using Site-specific Modified Antibodies

IP11 **Shin-ichi Yusa, Kenichi Fukuda, Tohei Yamamoto, Yasuhiko Iwasaki, Akihiko Watanabe, Kazunari Akiyoshi, Yotaro Morishima**

Dept. of Materials Science and Chemistry, Graduate School of Engineering, Univ. of Hyogo

Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University

Faculty of Engineering, Fukui University of Technology

Salt Effect on Heat-induced Association Behavior of Gold Nanoparticles Coated with Poly(*N*-isopropylacrylamide)

IP12 **Yasushi Okumura**, **Akira Harada**, **Kohzo Ito**

Department of Macromolecular Science, Graduate School of Science, Osaka University.

Graduate School of Frontier Science, University of Tokyo.

Topological Gels by Figure-of-Eight Cross-Links

IP13 **Yoshinori Takashima**, **Kahori Ohga**, **Hirokazu Takahashi**, **Hiroyasu Yamaguchi**, **Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University.

Preparation of Supramolecular Polymers from a Cyclodextrin Dimer and Ditopic Guest Molecules: Control of Structure by Linker Flexibility

IP14 **Naoki Tomimasu**, **Yoshinori Takashima**, **Hiroyasu Yamaguchi**, **Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Migration Behavior of Secondary Hydroxyl Group of α -Cyclodextrin Derivatives: Relationship between Isomerization and Formation of Supramolecular Complex

IP15 **Tomoya Oshikiri**, **Yoshinori Takashima**, **Hiroyasu Yamaguchi**, **Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Kinetic Control of Sliding Process of the Cyclic Component onto the Rotaxane bearing 2-Pyridinium Moieties

IP16 **Koji Konishi**, **Hiroyasu Yamaguchi**, **Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Photoluminescence Enhancement of Iridium Complexes by the Addition of Water-Soluble Polymers

IP17 **Wei Deng**, **Hiroyasu Yamaguchi**, **Yoshinori Takashima**, **Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Stimuli-responsive Hydrogels from Supramolecular Assemblies of

Modified β -Cyclodextrin

IP18 Yurij Antonov, Christian Friedrich

N.M. Emanuel Institute of Biochemical Physics. Russian Academy of Sciences, Russia
FMF and Institute fuer Makromolekulare Chemie der Alber-Ludwigs Universitaet, Germany

Compatibilization of Biopolymer Mixture by Physical Interactions of Constituents

IP19 Akiko Tanabe, Shigeaki Morita, Masaru Tanaka, Yukihiro Ozaki

Department of Chemistry, School of Science and Technology, Kwansai Gakuin University
Nanotechnology Research Center, Research Institute for Electronic Science, Hokkaido Univ.

Effect of Small Molecules on a Hydration Structure of a Biocompatible Polymer Film

IP20 Rika Nojima, Akihito Hashidzume, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Association-Dissociation Equilibrium of an Amphiphilic Polyelectrolyte in Aqueous Solution

IP21 Yusuke Sanada, Akihito Hashidzume, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Towards Preparation of Porous Polymer Materials Recognizing Glucose by the Molecular Imprinting Technique

IP22 Tomohiko Kimura, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Association Behavior of Hydrophobically Modified Poly(sodium acrylate)

IP23 Fumie Takei, Kiyotaka Onitsuka, Shigetoshi Takahashi, Ken Terao, Takahiro Sato

The Institute of Scientific and Industrial Research, Osaka University

Department of Macromolecular Science, Graduate School of Science, Osaka University

Control of Helical Structure in Random Copolymers of Chiral and

Achiral Aryl Isocyanides Prepared with Pd-Pt μ -Ethyndiyl Complexes

IP24 Kazushi Horio, Yuichi Masubuchi, Jay D. Schieber

Dept. of Applied Chemistry, Grad. School of Eng, Tokyo Univ. of Agriculture and Technology
JST-PRESTO

Department of Chemical and Environmental Engineering, Illinois Institute of Technology

A 3D Network Model with Osmotic Free Energy

IP25 Yuji Hirose, Yasufumi Otsubo

Venture Business Laboratory, Chiba University

Faculty of Engineering, Chiba University

Electrorheology of Poly(ethylene glycol) / Poly(vinyl alcohol) Blend Particle Suspensions

IP26 Yuichi Satokawa, Toshiyuki Shikata

Department of Macromolecular Science, Graduate School of Science, Osaka University

High Frequency Dielectric Relaxation Behavior of Aqueous Solutions of Poly(vinyl sulfate) Salts with Various Counterion Species

IP27 Osamu Urakawa, Hiroyoshi Ikuta, Toshiyuki Shikata

Department of Macromolecular Science, Graduate School of Science, Osaka University

Small-Angle Neutron Scattering Study on the Miscibility of Hydrogen Bonding Polymer Blend

IP28 Taichi Fujii, Maiko Tsuda, Ken Terao, Takashi Norisuye, Shinichi Kitamura

Department of Macromolecular Science, Graduate School of Science, Osaka University

Graduate School of Life & Environmental Sciences, Osaka Prefecture University

Dilute Solution Properties of Amylose Tris(phenylcarbamate) in Various Solvents

IP29 Maiko Murashima, Ken Terao, Takashi Norisuye, Shinichi Kitamura

Department of Macromolecular Science, Graduate School of Science, Osaka University

Graduate School of Life & Environmental Sciences, Osaka Prefecture University

Conformational Change of Amylose Tris(*n*-butyl carbamate) in

Methanol-Tetrahydrofuran Mixed Solvents

IP30 Kenji Okuyama, Chizuru Hongo, Keiichi Noguchi

Department of Macromolecular Science, Graduate School of Science, Osaka University

Instrumentation Analysis Center, Tokyo University of Agriculture and Technology

Is the Rich & Crick Model for Collagen Really True?

IP31 Reina Onishi, Eri Chatani, Kentaro Iwata, Syouiti Sakurai, Hironobu Naiki, Yuji Goto

Institute for protein Research, Osaka University

Department of Pathology, Fukui Medical University

CREST/JST

Observation of Fibril-Monomer Complex during the Extension Process of β_2 -Microglobulin Amyloid Fibril by using Trp Fluorescence

IP32 Kazumasa Sakurai, Yuji Goto

Institute for protein Research, Osaka University

Relationship between pH-Dependences of Conformation and Stability of Bovine β -Lactoglobulin Studied using Fluorescence and NMR Spectroscopies

IP33 Michihiro Suga, Kyoko Ito-Shinzawa, Hiroshi Aoyama, Eiki Yamashita, Shinya Yoshikawa, Tomitake Tsukihara

Institute for protein Research, Osaka University

University of Hyogo

Riken Harima Institute

Annealing of Protein Crystal of Cytochrome c Oxidase

IP34 Takeshi Ozaki, Toshiharu Hase, Masami Kusunoki

Institute for protein Research, Osaka University

Structural Study for the Enzyme Mechanism of Eucaryotic Glutamine Synthetase from Zea Mays

Poster Session II February 20 15:40 - 17:10

Location of panel for IIPX	X: 1 - 20	Large Conference Room
	X: 21 - 33	Conference Room C
Obligation time of presentation for IIPX	X: odd number	15:40-16:25
	X: even number	16:25-17:10

**IIP1 Yukari Oda, Tomohiro Tsujino, Shokyoku Kanaoka, Sadahito
Aoshima**

Department of Macromolecular Science, Graduate School of Science, Osaka University

**Synthesis of Stimuli-Responsive Polymers by Living Cationic
Polymerization and Their Self-assemblies through Ion
Complex Formation**

**IIP2 Yoshiki Takeshita, Ken-ichi Seno, Shokyoku Kanaoka, Sadahito
Aoshima**

Department of Macromolecular Science, Graduate School of Science, Osaka University

**Living Cationic Polymerization of Vinyl Ethers in Heterogeneous
Systems**

**IIP3 Tomonori Hattori, Naoto Yagi, Shokyoku Kanaoka, Sadahito
Aoshima, Hironori Tsunoyama, Tatsuya Tsukuda, Hidehiro Sakurai**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Research Center for Molecular Scale Nanoscience, Institute for Molecular Science

**Synthesis of Various Polymers with Controlled Sequence by Living
Cationic Polymerization and Preparation of Gold Nanoparticle**

**IIP4 Kentaro Okamoto, Ryosuke Nakamura, Hideki Ichida, Norio
Hamada, Taka-aki Okamura, Yasuo Kanematsu, Hitoshi Yamamoto**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Center for Advanced Science and Innovation, Osaka University

**Electronic State Regulation of the Chromophore by Cys69 residue in
PYP**

**IIP5 Takeshi Daimon, Akihiro Ito, Taka-aki Okamura, and Hotoshi
Yamamoto**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Determination of C-terminal Amino Acid Sequences Using a Novel Labeling Reagent with Ruthenium(II) Complex

IIP6 **Kazuya Sakamoto, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Supramolecular Structure of Cyclodextrin-Terminated Oligothiophene

IIP7 **Kunihiro Uramatsu, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Preparation of Supramolecular Ruthenium Catalysis with Modified Cyclodextrin as Ligands

IIP8 **Yusuke Kosako, Tohko Hirano, Hideaki Kiminami, Daisuke Taura, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Synthesis of Functionalized Catalysis Using Transition Metal Complexes with Monoclonal Antibodies

IIP9 **Dai Nishimura, Tomoya Oshikiri, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada**

Department of Macromolecular Science, Graduate School of Science, Osaka University

Control and Observation of Rotation of Cyclodextrin Modified with Bulky Substituent Based on Rotaxanes

IIP10 **Makoto Sugahara, Shin-ichi Yusa, Tohei Yamamoto, Yotaro Morishima**

Dept. of Materials Science and Chemistry, Graduate School of Engineering, University of Hyogo
Faculty of Engineering, Fukui University of Technology

Preparation and Characterization of Cinnamoyl-containing pH-Responsive Block Copolymer

IIP11 Takeshi Onji, Hiroyasu Yamaguchi, Noriaki Ikeda, Akira Harada

Department of Macromolecular Science, Graduate School of Science, Osaka University

Department of Chemistry, Graduate School of Science, Osaka University

Construction of a Hydrogen Evolution System Using Antibody-Porphyrin Complexes as Photosensitizers

IIP12 Paul Kuad, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada

Department of Macromolecular Science, Graduate School of Science, Osaka University

Photo-Responsive Structure of Supramolecular Polymer Constructed by a Stilbene Cyclodextrin Dimer

IIP13 Tomoki Ogoshi, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada

Department of Macromolecular Science, Graduate School of Science, Osaka University

High-Sensitive Molecular Sensor Based on Cyclodextrin Encapsulated Poly(phenylene ethynylene)

IIP14 Hirokazu Takahashi, Yoshinori Takashima, Hiroyasu Yamaguchi, Akira Harada

Department of Macromolecular Science, Graduate School of Science, Osaka University

Formation of Supramolecular Complex with Cyclodextrin Dimer - Observation of Pinching-type Complex and Supramolecular Polymer -

IIP15 Kiyotaka Onitsuka, Mari Yamamoto, Tomoko Mori, Fumie Takei, Shigetoshi Takahashi

Institute of Scientific and Industrial Research, Osaka University

Living Polymerization of Bulky Aryl Isocyanide with Arylrhodium Complexes and Application to Precise Synthesis of Helical Polymers

IIP16 Atsushi Tanaka, Akihito Hashidzume, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Interaction of Poly(meth)acrylamides Bearing Amino Acid Residues with Saccharides in Aqueous Media

IIP17 Aiko Kondo, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Structure of Aggregates Formed by a Thermally Denatured Globular Protein after Quench

IIP18 Daisuke Michitaka, Akihito Hashizume, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Synthesis of Block Copolymers Using an Azo Initiator Bearing Precursor of Nitroxide Radical

IIP19 Takuya Mori, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Formation and Destruction of Amphiphilic Copolymer Micelles in Mixtures of Water and Methanol

IIP20 Yurij Antonov, Takahiro Sato

Department of Macromolecular Science, Graduate School of Science, Osaka University

Interaction of 11 S Globulin from *Vicia Faba* Seeds and kappa Carrageenan in Aqueous Medium

IIP21 Takashi Uneyama

Department of Physics, Graduate School of Science, Kyoto University

Dynamic Density Functional Study of Micellar Structures Formed in Amphiphilic Block Copolymer Solutions

IIP22 Shogo Nobukawa, Osamu Urakawa, Toshiyuki Shikata

Department of Macromolecular Science, Graduate School of Science, Osaka University

The Effects of Hydrogen Bonds on the Dynamics of Benzyl Alcohol

IIP23 Toshiyuki Shikata, Aiko Sakamoto, Kenji Hanabusa

Department of Macromolecular Science, Graduate School of Science, Osaka University

Graduate School of Science and Technology, Shinshu University

Huge Macro-Dipoles Generated in Supramolecular Polymers Formed by Gelator Molecules in Nonpolar Media

IIP24 Yo Nakamura, Manabu Sugiyama, Keiji Amitani, Takashi Norisuye

Department of Polymer Chemistry, Graduate School of Engineering, Kyoto University

Department of Macromolecular Science, Graduate School of Science, Osaka University

Particle Scattering Function of Polystyrene Polymacromonomer

IIP25 Makoto Takemasa, Katsuyoshi Nishinari

Graduate School of Life and Environmental Sciences, Osaka Prefecture University

Dept. of Food and Human Health Sci., Grad. School of Human Life Sci., Osaka City Univ.

Synergistic Interaction between Xanthan and Galactomannan

Investigated by NMR, Rheology, and DSC

IIP26 Yuichi Sano, Shota Arakawa, Ken Terao, Takashi Norisuye, Shinichi Kitamura

Department of Macromolecular Science, Graduate School of Science, Osaka University

Graduate School of Life and Environmental Sciences, Osaka Prefecture University

Dilute Solution Properties of Amylose Tris (n-butyl carbamate):

Wormlike Chain Parameters in Methanol and in Tetrahydrofuran

IIP27 Ken Terao, Noriaki Kikuchi, Takahiro Sato, Akio Teramoto, Michiya Fujiki, Toshiaki Dobashi

Department of Macromolecular Science, Graduate School of Science, Osaka University

Department of Biological and Chemical Engineering, Gunma University

Department of Applied Chemistry, Ritsumeikan University

Graduate School of Materials Science, Nara Institute of Science and Technology

Circular Dichroism Behavior of Poly(n-hexyl-(S)-3-methyl -

pentylsilane) Aggregates Confined in Microcapsules

IIP28 Tatsuya Kawaguchi, Masaki Shimura, Chizuru Hongo, Keiichi Noguchi, Kenji Okuyama, Kazunori Mizuno, Hans Peter Baechinger

Department of Macromolecular Science, Graduate School of Science, Osaka University

Graduate School of Engineering, Tokyo University of Agriculture and Technology

The Triple-Helical Structure of (Pro-Pro-Gly)₄-Hyp-Asp-Gly-(Pro-

Pro-Gly)₄ at 1.0 Å Resolution

**IIP29 Masahito Kinoshita, Kiyoto Kamagata, Akio Maeda, Yuji Goto,
Satoshi Takahashi**

Institute for Protein Research, Osaka University

CREST, JST

**Detection of Folding Dynamics of Freely Flowing Proteins in Solution
at the Single Molecule Level**

IIP30 Chimari Okada, Soo Jae Lee, Tomitake Tsukihara

Institute for Protein Research, Osaka University

College of Pharmacy, Chungbuk National University, Korea

Expression and Purification of Exportin-5

**IIP31 Akifumi Higashiura, Hideaki Tanaka, Koji Inaka, Masaru Sato,
Shigeru Sugiyama, Sachiko Takahashi, Mari Yamanaka, Moritoshi
Motohara, Satoshi Sano, Tomoyuki Kobayashi, Mamoru Suzuki,
Tetsuo Tanaka, Atsushi Nakagawa**

Institute for Protein Research, Osaka University

Japan Space Forum

Maruwa Food Industries, Inc.

Japan Aerospace Exploration Agency

**X-ray Crystal Structures of Taka-amylase A and Hen Egg White
Lysozyme at Atomic Resolution**