The 9th International Polymer Conference (IPC 2012)

Scientific Program

Main Hall

Tuesday, December 11 (afternoon)

**Plenary Lecture**

K. Kataoka, presiding

15:00 11M01PL  Advanced Medical Revolution by Cell Sheet Engineering
Teruo Okano (Japan)

M. Sawamoto, presiding

16:00 11M02PL  Deployment Strategy of the Chemical Industry to Carve out a New Era
Chiaki Tanaka (Japan)

T. Aida, presiding

17:00 11M03PL  Element strategy: science backed by a world and historical view
Eiichi Nakamura (Japan)

Room A

Wednesday, December 12 (morning)

S-1  Frontiers in Synthetic Polymer Chemistry

S. Aoshima, presiding

9:00 12A01IL  Precision Radical Polymerization: Present and Future
Mitsuo Sawamoto (Japan)

H. Mori, presiding

9:40 12A03  Living Radical Polymerization with Organic Catalyst Induced by Photo-Irradiation
Akimichi Ohtsuki, Atsushi Goto and Hironori Kaji (Japan)

10:00 12A04  Synthesis of End- and Midchain-Functionalized Polymers by The Combination of Organotellurium- mediated Living Radical Polymerization and Radical Coupling Reaction
Yasuyuki Nakamura, Takahiro Arima and Shigeru Yamago (Japan)

T. Takata, presiding

10:20 12A05IL  Unsaturated Polymeric Materials: New Synthetic Methods & Applications
Christopher W. Bielawski (U.S.A.)

S. Yamago, presiding

11:00 12A07  Kinetic-mechanistic study of the free-radical polymerization of highly charged cationic monomers
Hamideh Ahmadloo, Marek Stach, Igor Lacik and Christine Wandrey (Switzerland)

11:20 12A08  Sequence-Programmed Radical Polymerizations with Designer Templates
Makoto Ouchi and Mitsuo Sawamoto (Japan)

M. Ouchi, presiding

11:40 12A09  RAFT Polymerization of S-Vinyl Monomers
Hideharu Mori (Japan)

12:00 12A10  Synthesis of Block Copolymers Containing 2, 4-diamino-s-triazinyl group derivatives by Living Radical Polymerization
Yusuke Nojima, Kenji Sugiyama and Toshiyuki Watanabe (Japan)

Wednesday, December 12 (afternoon)

M. Sawamoto, presiding

14:00 12A11IL  Polymers for therapeutic applications from living radical polymerisation
David M. Haddleton (U.K.)
A. Goto, presiding
14:40  12A13  Smart Functional Polymers via Living Radical Polymerization
Takaya Terashima and Mitsuo Sawamoto (Japan)

15:00  12A14  Synthesis of Thermo-Reversible Crosslinked Polymers Using Diels-Alder
Reaction of Furan-Containing Poly(furfuryl methacrylate)
Daisuke Yamamoto, Koji Yamauchi, Tetsuya Goto and Timothy Long (Japan)

A. Hirao, presiding
15:20  12A15  Concurrent Radical/Cationic Mixed Polymerization by Interconvertible
Intermediates via Covalent C-S Bond
Kotaro Satoh, Hiroshi Aoshima and Masami Kamigaito (Japan)

15:40  12A16  Monomer-Selective Living Cationic Polymerization for Precision Synthesis of
Block Copolymers and Star Polymers via Seamless Domino-type Reaction
Shokyoku Kanaoka, Mayuka Yamada, Ryohei Kimura, Jun Ashida, Arihiro
Kanazawa and Sadahito Aoshima (Japan)

16:00  12A17  Design of Degradable Alternating Copolymers with Functional Groups by
Controlled Cationic Polymerization
Yukari Oda, Yasushi Ishido, Suzuka Matsumoto, Arihiro Kanazawa,
Shokyoku Kanaoka and Sadahito Aoshima (Japan)

T. Ishizone, presiding
16:20  12A18  Polymerization of Cyclic Esters and Methacrylates with Lithium
tert-Butylzincate: Structures of the Polymers and Polymerization Mechanism
Miyuki Oshimura, Tomohiro Hirano and Koichi Ute (Japan)

16:40  12A19  One-shot star polymer synthesis via selective anionic copolymerization of
acrylates and dimethacrylate
Takhehiro Kitaura and Tatsuki Kitayama (Japan)

17:00  12A20  Anionic Polymerization of α-Functionalized Acrylates with Controlled
Molecular Mass and Stereoregularity
Yasuhiro Kohsaka, Takashi Kurata, Eiji Yamaguchi, Kazuha Suzawa and
Tatsuki Kitayama (Japan)

T. Kitayama, presiding
17:20  12A21IL  Living Anionic Polymerization of Divinylbenzene Derivatives
Akira Hirao (Japan)

18:00  12A23  Anionic Polymerization of exo-Methylene Monomers
Takashi Ishizone, Yuki Kosaka, Keita Kitazawa and Sotaro Inomata (Japan)

Thursday, December 13 (morning)

K. Nozaki, presiding
9:00  13A01IL  Functionalized Polymers from Insertion Catalysis
Stefan S. Mecking (Germany)

S. S. Mecking, presiding
9:40  13A03  Synthesis of Functional Polyolefins Using Cationic Bisphosphine
Monoxide-Palladium Complexes
Brad Carrow and Kyoko Nozaki (U.S.A.)

10:00  13A04  Chain-Shuttling Polymerization by Mixed Scandium and Zirconium
Catalysts: The First Regio- and Stereoselective Block Copolymerization of
Propylene and Butadiene
Hongxia Zhang, Li Pan, Masayoshi Nishiura and Zhaomin Hou (Japan)

10:20  13A05  End-functionalized Polymerization of 2-Vinylpyridine through Initial C-H
Bond Activation of N-Heteroaromatics and Internal Alkynes by Yttrium
Ene-diamido Complexes
Kazushi Mashima, Haruki Nagae, Hiroshi Kaneko and Hayato Tsurugi
(Japan)

K. Mashima, presiding
10:40  13A06  Precise Synthesis of Cycloolefin Block Copolymers with
ansa-Dimethylsilylene[fluorenlyl][t-butyramido]dimethyltitanium Complexes
Takuya Suenaga, Yuushou Nakayama and Takeshi Shiono (Japan)

11:00  13A07  The effects of titanium precursors combination on ethylene polymerization activity
Goond Hongmanee, Bunjerd Jongsomjit and Piyanas Praserthdam (Thailand)
B. Carrow, presiding
11:20 13A08IL Controlled Isomerization Polymerization by Pd and Ni Complexes
Daisuke Takeuchi (Japan)

Thursday, December 13 (afternoon)

D. Takeuchi, presiding
14:00 13A11 Catalyst-Transfer Condensation Polymerization for the Synthesis of
Polypyridines as a n-Type π-Conjugated Polymers
Tsutomu Yokozawa, Yutaka Nanashima and Yoshihiro Ohta (Japan)
14:20 13A12 Synthesis of Hyperbranched Poly(L-lactide) by Self-Polycondensation of AB2
Macromonomers
Mitsutoshi Jikei, Maki Suzuki, Kuniyuki Itoh, Kazuya Matsumoto and Seigo
Kawaguchi (Japan)

T. Yokozawa, presiding
14:40 13A13IL All-Conjugated Block Copolymers
Ulrich Scherf (Germany)

S-5 Information Technologies

L. R. Dalton, presiding
16:00 13A17IL Towards the development of polymer optical interconnection systems
Toshikuni Kaino and Okihiro Sugihara (Japan)
16:40 13A19 Photoelastic analysis of compressed polarization-maintaining polymer optical
fiber
Rei Furukawa, Akihiro Tagaya and Yasuhiro Koike (Japan)

K. Yamamoto, presiding
17:00 13A20 Fabrication of Negative-type Graded Index Plastic Optical Fiber Using UV
Assisted Frontal Polymerization Technique
Kenji Tsukada, Eiuke Nihei and Koichi Asakura (Japan)
17:20 13A21 Anti-Reflection film made by self-arrangement-coating of nano-size particles
Yasuyuki Ishida, Yu Abe, Michiko Kai, Tadahiko Iwaya and Yasushi Takada
(Japan)
17:40 13A22 Fabrication of 100 nm scale polymer/silicon nitride hybrid waveguides for
silicon photonics application
Shiyoshi Yokoyama, Feng Qiu, Feng Yu, Andrew Spring and Kazuhiro
Yamamoto (Japan)

Friday, December 14 (morning)

, presiding
9:00 14A01IL Large-area, ultraflexible electronics for ambient information technologies
Tsuyoshi Sekitani and Takao Someya (Japan)

N. Peyghambarian, presiding
9:40 14A03IL The High Performance OLED Scalable Display with Future-Oriented Design
Nobuo Terazaki and Zenichiro Hara (Japan)

H. Kikuchi, presiding
10:20 14A05IL Highly Luminescent and Stimuli-Responsive
Supramolecular/Macromolecular System
Soo Young Park (Korea)
11:00 14A07 Construction of high-performance nanoelectronics for nonvolatile low-voltage
memories using self-oriented ferroelectric two-dimensional nanofilms
Huie Zhu, Masaya Mitsu, Jun Matsui and Tokuji Miyashita (Japan)

C. Adachi, presiding
11:20 14A08 Fabrication of Functional Nano-Architecture toward Phototunable Property
Takashi Yamamoto, Hiroaki Namba, Keisuke Natsui, Miku Akahori, Kei
Iwasaki and Yasuaki Einaga (Japan)
11:40 14A09 Synthesis of copolyimides containing pyrene structure and their application
to polymer memory device
Tadanori Kurosawa, Tomoya Higashihara, Mitsu Ueda, An-Dih Yu,
Cheng-Liang Liu and Wen-Chang Chen (Japan)
12:00  14A10  Light-Emitting Electrochemical Cell based on Trisbipyridine Ruthenium Complex  
        Atsushi Aoki, Wei-Chen Chen and Takashi Takaki (Japan)

**Friday, December 14 (afternoon)**

_Y. Koike, presiding_

14:00  14A11  Theory-Guided Nano-Engineering of Order and Molecular Cooperativity in Macromolecular Materials  
        Larry R. Dalton (U.S.A)

_T. Kaino, presiding_

14:40  14A13  Polymers for holographic 3D display and optical information technologies  
        Nasser Peyghambarian (U.S.A.)

_S. Y. Park, presiding_

15:20  14A15  Theory-guided Nano-Engineering of Order and Molecular Cooperativity in Macromolecular Materials  
        Larry R. Dalton (U.S.A.)

16:00  14A17  Fully updatable three-dimensional holographic display device using photorefractive compounds  
        Naoto Tsutsumi, Kenji Kinashi, Kanako Ogo, Wataru Sakai, Jyunichi Nishide, Yutaka Kawabe and Hiroyuki Sasabe (Japan)

_A. Tagaya, presiding_

16:20  14A18  Enhanced Photorefractive Performance of Poly(4-diphenylamino)styrene-based Composites  
        Sho Tsujimura, Kenji Kinashi, Wataru Sakai and Naoto Tsutsumi (Japan)

16:40  14A19  Dynamic holographic images using poly(N-vinylcarbazole)-based photorefractive composites  
        Kenji Kinashi, Yu Wang, Wataru Sakai and Naoto Tsutsumi (Japan)

17:00  14A20  Photorefractive Composite Based on Poly(4-(Diphenylamino)benzyl acrylate)  
        Ha Ngoc Giang, Kenji Kinashi and Naoto Tsutsumi (Japan)

_N. Tsutsumi, presiding_

17:20  14A21  Synthesis and Characterization of Chromophore Functionalized Electro-optical Maleimide Polymers for Optical Device Application  
        Li Lu, Feng Yu, Feng Qiu, Andrew M. Spring, Kazuhiro Yamamoto and Shiyoshi Yokoyama (Japan)

17:40  14A22  High Tg Living Polymers via ROMP as Hosts for Electro-optic Applications  
        Andrew Spring, Feng Yu and Shiyoshi Yokoyama (Japan)

**Room B**

**Wednesday, December 12 (morning)**

_T. Miyatake, presiding_

9:00  12B01  Industrialization of the clay-mineral supported metallocene catalysts for high performance polyolefins  
        Akio Tanna, Hideshi Uchino and Takao Tayano (Japan)

_T. Inoue, presiding_

9:40  12B03  New Nanostructured PMMA sheets used in car glazing  
        Sylvain Bourrigaud, Gilles Meunier, Daniel Lebouvier and Christian Collette (France)

_A. Usuki, presiding_

10:20  12B05  Development of advanced reverse osmosis membrane to meet the world water demand  
        Masahiro Henmi (Japan)

_S. Osaki, presiding_

11:00  12B07  Silicon-Containing Polynorbornenes - New Highly Permeable Membrane Materials  
        Maria Gringolts, Maxim Bermeshev, Alexander Syromolotov, Ljudmila...
11:20 12B08 3D Gel Printer for Free Shaping of Functional Gel Materials
Hidemitsu Furukawa, Hisato Muroi, Kouki Yamamoto, Ryo Serizawa and Jin Gong (Japan)

M. Gringolts, presiding
11:40 12B09 Analysis of fluorescence spectroscopy of PU shape memory polymer with different thermal cycles
Jia Ying, Masaaki Nishikawa and Masaki Hojo (China)
12:00 12B10 High strengthening of the strings consisting of a number of fiber filaments -Unique Packing structure with no spaces -
Shigeyoshi Osaki (Japan)

Wednesday, December 12 (afternoon)
T. Fujita, presiding
14:00 12B11IL Development of New Olefin Block Copolymers Using High Throughput Methodologies
Harold Boone (U.S.A.)

T. Inoue, presiding
14:40 12B13IL Advanced Polymeric Materials
Jens Rieger (Germany)

A. Shinohara, presiding
15:20 12B15IL Mechanical stabilization of perfluorinated and hydrocarbon membranes for automotive and stationary applications
Deborah J. Jones (France)

H. Furukawa, presiding
16:00 12B17 Non-Crosslinked Perfluoro-polymer Electrolytes with Two Acid Groups at the Branches
Akihiro Shinohara, Kenji Kudo, Naoki Hasegawa and Masaya Kawasaki (Japan)
16:20 12B18 Development of a Cross-Linkable and Highly Heat Resistant Cyclic Olefin Copolymer Using an FI Catalyst
Akihiko Iwashita, Takashi Uenazaki, Junichi Mohri, Rihoko Suzuki, Tomoaki Matsugi, Akifumi Kagayama, Hiroshi Terao and Yasunori Yoshida (Japan)
16:40 12B19 Polymer-coated ceramics nanoaprticles produced by in-situ living block copolymerization for mass production of new type filler materials
Toshihiko Arita (Japan)

T. Arita, presiding
17:00 12B20 Block copolymer films toward SiO2-Au 3D hybrid nano array: Catalyst for the direct formation of H2O2 from H2 and O2
Aihua Chen (China)
17:20 12B21 Titanium oxide resin with high refractive index curable by hydrosilylation
Tsutomi Yasui and Hirofumi Nishida (Japan)
17:40 12B22 High refractive index coating material consisting of titanium oxide oligomer and sulfur-containing compounds
Hirofumi Nishida and Tsutomi Yasui (Japan)
18:00 12B23 The design of Silsesquioxane curable by ring-opening polymerization having high heat-resistance
Yohei Uetsuki and Hirofumi Nishida (Japan)

Thursday, December 13 (morning)
H. Nishida, presiding
9:00 13B01 Properties of Reinforced Rubber Compound : Comparison between Admicellar polymerization- and Silane- Modified Silica
Piyawan Numnin, Arisara Chaikittiratana and Thirawudh Pongprayoon (Thailand)
9:20 13B02 Effects of the Structural Defective-Degree for Carbon Nanotube on the Antidegradation and Electrical Conductivity of Rubber Composites
Tomoya Nagaoka, Yoshiyuki Takahashi, Koji Tsuchiya and Hirofumi Yajima (Japan)
**M. Ueda, presiding**

9:40 13B03 Anion conductive aromatic block copolymers for fuel cells
Kenji Miyatake, Keita Fukasawa, Hideaki Ono and Masahiro Watanabe (Japan)

10:00 13B04 Porous Polymeric Frameworks as a cathode material: The Emergence of Electronic Properties and its Application in Energy Storage Devices
Ken Sakaushi, Georg Nickerl, Eiji Hosono, Hemchandra Kandpal, Laura Cano-Cortes, Jeroen van den Brink, Haoshen Zhou, Stefan Kaskel and Jurgen Eckert (Germany)

**T. Iyoda, presiding**

10:20 13B05IL Cationic Polymers for Platinum-Free Fuel Cells
Michael A. Hickner (U.S.A.)

11:00 13B07IL Development of Novel Proton Exchange Membranes for Fuel Cell Applications
Tomoya Higashihara and Mitsuru Ueda (Japan)

**Thursday, December 13 (afternoon)**

**T. Uragami, presiding**

14:00 13B11IL Application of Natural Polymer Gel Electrolytes to Supercapacitor and Lithium-ion Battery
Masashi Ishikawa, Shota Ikebe, Kazuki Takeno, Kazunari Soeda, Shigeaki Yamazaki and Masaki Yamagata (Japan)

14:40 13B13IL Molecular Design of Polymers for Carbon Capture
Young Moo Lee (Korea)

**K. Asaka, presiding**

15:20 13B15IL Energy Harvesting Using Dielectric Elastomers
Zhigang Suo (U.S.A.)

16:00 13B17IL Conducting Polymers As Electromechanical Transducers
Hidenori Okuzaki (Japan)

**H. Okuzaki, presiding**

16:40 13B19 Organic thermoelectric Materials of Conductive Polymers Containing Metal Nanoparticles
Naoki Toshima, Natta Jiravanichanun, Akihito Yoshida and Shoko Ichikawa (Japan)

17:00 13B20 Tailoring of Conducting Polymer Nanostructure by Electropolymerization through Phase-Segregated Block Copolymer Thin Film
Hideaki Komiyama, Motonori Komura, Keiji Nagai, Kaori Kamata and Tomokazu Iyoda (Japan)

**T. Kubo, presiding**

17:20 13B21IL The effect of interfaces on charge transport and recombination in polymeric solar cells
Ronald Österbacka (Finland)

**Friday, December 14 (morning)**

**H. Segawa, presiding**

9:00 14B01IL Novel light emitting materials in OLED
Chihaya Adachi (Japan)

9:40 14B03IL Transient Absorption Spectroscopy for Studying Energy Conversion Processes in Polymer Solar Cells
Shinzaburo Ito, Hiroaki Benten and Hideo Ohkita (Japan)

**K. Nagai, presiding**

10:20 14B05 Optical Properties and Emission Mechanisms of Highly Fluorescent Polyimides Applicable to Spectrum Converter for Solar Cells
Shinji Ando, Hiroyuki Sekino, Junji Wakita, Takamichi Shimosaka and Kenta Kanosue (Japan)

10:40 14B06 Effect of Exciton Diffusion Length in Conjugated Polymers on Solar Cell Performance
Cheah Li Leow, Fei Tang, Toshihiro Ohnishi and Michio Matsumura (Japan)

S. Seki, presiding

11:00 14B07  Full-spectrum visible-light-responsive polymer-based photocatalyst
Keiji Nagai, Arunachalam Prabhakarn, Shuai Zhang, Tomokazu Iyoda and
Toshiyuki Abe (Japan)

11:20 14B08  Polymeric Films of Vinyl Metal Complexes Immobilized on Titanium Oxide by
A New Electrochemically Initiated Polymerization in Dye-sensitized Solar Cell
Yi Liu, Masahiro Tamura, Takuya Shinhara, Yusuke Yamasaki and
Katsuhiko Sumi (Japan)

11:40 14B09ILConjugated molecules and polymers for organic solar cells
Xiaowei Zhan (China)

Friday, December 14 (afternoon)

K. Tajima, presiding

14:00 14B11  Synthesis of block copolymers with poly(3-hexylthiophene) segments and
their application to organic photovoltaics
Tomoya Higashihara, Mitsuru Ueda and Moonhor Ree (Japan)

14:20 14B12  Synthesis of low band gap conjugated polymers via Pd-catalysed direct
arylation polymerisation and their photovoltaic performance
Masaki Horie, Shu-Wei Chang, Jeff Kettle and Huw Waters (Taiwan)

14:40 14B13  Synthesis, Properties, and Photovoltaic Performances of Donor-Acceptor
Copolymers Having Dioxocycloalkene-annelated Thiophenes as Acceptor Unit
Huang Jianming, Ie Yutaka, Karakawa Makoto and Aso Yoshio (Japan)

15:00 14B14  Thiazolothiaole-Thiophene Copolymers: Implication of Structural Order for
Charge Transport and Photovoltaic Properties
Itaru Osaka, Masahiko Saito, Hiroki Mori, Tomoyuki Koganezawa and Kazuo
Takimiya (Japan)

K. Nagai, presiding

15:20 14B15ILMaterial Design for Polymer Solar Cells
Keisuke Tajima and Kazuhiro Hashimoto (Japan)

C. Adachi, presiding

16:00 14B17ILwithdrawn

16:40 14B19  Polymer-Sensitized Solar Cells Based on Polyythiophene Derivatives Bearing
Hydrophilic Linking Groups
Takaya Kubo, Kenta Akitsu, Hiroshi Segawa, Satoshi Uchida, Naoki Otani
and Mitsunobu Matsumura (Japan)

17:00 14B20  Design of Narrow Band-gap Polymers for Organic Solar Cell Applications
Nobuhiro Watanabe, Daisuke Kitazawa, Syuhei Yamamoto, Satoru
Shimomura and Jun Tsukamoto (Japan)

T. Kubo, presiding

17:20 14B21  Photocatalytic Decomposition of N-methyl-2-pyrrolidone, Aldehydes, and
Thiol by Biphase and p/n Junction-like Organic Semiconductor Composite
Nanoparticles Responsive to Nearly Full Spectrum of Visible Light
Shuai Zhang (China)

17:40 14B22  Nanostructured electrode materials for energy storage fabricated by
electrodeposition through block copolymer template
Takenori Goda and Tomokazu Iyoda (Japan)

Room C

Wednesday, December 12 (morning)

T. Okano, presiding

9:00 12C01ILDynamics and Diffusional Behavior of Complexation Networks and Gels with
Applications to Drug Delivery and Molecular Recognition
Nicolas A. Peppas (U.S.A.)
Smart properties of biologically stimuli-responsive hydrogels using biomolecular complexes as dynamic crosslinks

M. Maeda, presiding
9:40 12C03

Preparation of Biomolecule-Responsive Gel Particles for Biomedical Applications

T. Miyata, presiding
10:00 12C04

Molecular imprinting of proteins by orientated template immobilization

10:20 12C05

Controlled Releases of Antibacterial agents from PVA / PVP Hydrogels Cross-linked by Gamma Irradiation

10:40 12C06

Affinity-Based Drug Delivery

Horst von Recum (U.S.A.)
11:00 12C07IL

Homo-cationic integration into PEGylated polycationic micelle from block-cationomer for systemic anti-angiogenic gene therapy aimed at fibrotic pancreatic tumors

11:40 12C09

Developing pH-responsive Polymer Micelles for the intracellular delivery of Proteasome inhibitor M132 for effective cancer therapy

12:00 12C10

Structure and enhanced pharmacokinetics of antitumor platinum-loaded micelles regulated by secondary structure in their core

Yuki Mochida, Francesco Albertini, Horacio Cabral, Yutaka Miura, Kensuke Osada, Nobuhiro Nishiyama and Kazunori Kataoka (Japan)
14:00 12C11

Design of redox nanoparticle as an adjuvant to anticancer chemotherapy

Toru Yoshitomi, Yuki Ozaki and Yukio Nagasaki (Japan)
14:20 12C12

Orally Administered Redox Nanoparticle Accumulates in the Colonic Mucosa and Reduces Colitis in Mice

Long Binh Vong, Tsutomu Tomita, Toru Yoshitomi, Hirofumi Matsui and Yukio Nagasaki (Japan)
14:40 12C13

Hydrogen Sulfide Delivery Systems based on Polymeric Micelles and its Therapeutic Potential in Immunotherapy

Urara Hasegawa, Naoya Tateishi and Andre J. van der Vlies (Japan)
15:00 12C14

Cationic Nanohydrogel Particles as Potential siRNA Carriers for Cellular Delivery

Lutz Nuhn, Markus Hirsch, Bettina Krieg, Matthias Voigt, Kaloian Koynov, Karl Fischer, Manfred Schmidt, Mark Helm and Rudolf Zentel (Germany)
15:20 12C15

Enhanced siRNA-polymer click conjugation after gradual freeze-thawing

Hiroyasu Takemoto, Kanjiro Miyata, Takehiko Ishii, Nobuhiro Nishiyama and Kazunori Kataoka (Japan)
15:40 12C16

Design of High Performance MAgnnetic Nanoparticles for Imaging and Therapeutics

Jinwoo Cheon (Korea)
16:00 12C17IL

Calcium Phosphate Hybrid Micelles Incorporating Gd-DTPA with Enhance Relaxivity for Magnetic Resonance Imaging

Peng Mi, Horacio Cabral, Nobuhiro Nishiyama and Kazunori Kataoka (Japan)
16:40 12C19

Development of a versatile platform for macromolecule and nano-material delivery system based on polyion complex vesicles (PICosomes)

17:00 12C20
Akihiro Kishimura, Yasutaka Anraku, Daiki Sueyoshi and Kazunori Kataoka (Japan)

M. Yamato, presiding

17:20 12C21IL Stem Cell Manipulation on the Active Bio-interfaces
Tetsuji Yamaoka (Japan)

Thursday, December 13 (morning)

T. Yamaoka, presiding

9:00 13C01IL Synthetic Polymer Scaffolds for Bone Tissue Engineering

9:40 13C03 Cell Regulation at Polymeric Scaffold Surfaces with Mechanical Instability
Hisao Matsuno, Shinichiro Shimomura and Keiji Tanaka (Japan)

Y. Kuroyanagi, presiding

9:00 13C04 Health and Safety via Surface Modification of Polyurethanes
Kenneth J. Wynne (U.S.A.)

9:20 13C05 Regulation of cell adhesion and detachment on antibody-immobilized surfaces using grafted thermo-responsive polymer
Jun Kobayashi, Masanori Nishi, Yoshikatsu Akiyama, Masayuki Yamato and Teruo Okano (Japan)

10:00 13C06 On-demand killing of adherent cells on culture substrates functionalized with photo-acid-generating polymer
Kimio Sumaru, Kyoko Kikuchi, Toshiyuki Takagi, Manae Yamaguchi, Taku Satoh, Kana Morishita and Toshiyuki Kanamori (Japan)

T. Kanamori, presiding

11:00 13C07 Development of a functional wound dressing composed of hyaluronic acid spongy sheet containing bioactive substances
Nahoko Shimizu, Akiko Yamamoto and Yoshimitsu Kuroyanagi (Japan)

11:20 13C08 Development of an implantable wound dressing for closure of surgical excision wound on tissue and organ
Tomonori Inomata, Mitsuki Ohmae and Yoshimitsu Kuroyanagi (Japan)

11:40 13C09 Potential of PMMA-based tissue adhesive for closure of surgical incision wounds
Yoshimitsu Kuroyanagi and Ryusuke Suzuki (Japan)

12:00 13C10 Chemical Transformation of Cells: Controlling Cell Functions via Modification of Cell Surface
Takeshi Mori, Masafumi Takeo, Kyoei Tobinaga, Masayoshi Matsuda, Cuicui Lee, Takuro Niidome and Yoshiki Katayama (Japan)

M. Takeuchi, presiding

14:00 13C11IL Noncovalent Interactions as a Design Tool for Functional Polymers
Christoph Weder, Souleymane Coulibaly, Gina L. Fiore, Mahesh Biyani and E. Johan Foster (Switzerland)

14:40 13C13 Self-healing of mechanical damage in nanocomposite hydrogels
Kazutoshi Haraguchi (Japan)

15:00 13C14 Spiropyran-functionalized hydrogels as photo-responsive actuators
Kimio Sumaru, Taku Satoh, Szilagyi Andras, Toshiyuki Takagi, Shinji Sugiuara, Koji Hattori and Toshiyuki Kanamori (Japan)

K. Haraguchi, presiding

15:20 13C15IL Macroscopic Self-Assembly and Self-Healing through Molecular Recognition
Akira Harada (Japan)

16:00 13C17 A novel hydrogel created from dynamic and reversible ionic bonds: Toughness and self-healing
Abu Bin Ihsan, Tao Lin Sun, Takayuki Kurokawa, Shinya Kuroda, Md. Anamul Haque, Tasuku Nakajima and Jian Ping Gong (Japan)

16:20 13C18 Surface Instability Analysis of Confined Hydrogels due to Swelling
Chen-Hsueh Yang and Yu-Yun Lin (Taiwan)
**A. Harada, presiding**

16:40 13C19IL  **Self-Healing Polymers and Composites**  
Scott R. White (U.S.A.)

17:20 13C21  **Reorganization and Self-healing of Cross-linked Polymers with Radically Exchangeable Dynamic Covalent Bonds**  
Hideyuki Otsuka, Keita Akamine, Keiichi Imato, Jing Su, Yoshifumi Amamoto, Tomoyuki Ohishi and Atsushi Takahara (Japan)

17:40 13C22  **Meso-Decorated Gels: Synthesis and Properties**  
Jin Gong, Kensuke Sawamura, Susumu Igarashi, Md. Hasnat Kabir and Hidemitsu Furukawa (Japan)

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**Friday, December 14 (morning)**

**H. Uyama, presiding**

9:20 14C02  **Electrospun polymer fibers immobilized with cyclodextrins that trap diffusible signals for bacterial cell-to-cell communication**  
Eri Nasuno, Chigusa Okano, Takuto Umemura, Takehiro Ogi, Ken-ichi Iimura, Tomohiro Morohoshi, Tsukasa Ikeda and Norihiro Kato (Japan)

9:40 14C03  **Syntheses of xylan and glucomannan derivatives and their applications**  
Noreen Grace Fundador, Yusuke Omomo, Yukiko Enomoto-Rogers and Tadahisa Iwata (Japan)

10:00 14C04  **All-Poly (lactic acid) Nanocomposite Prepared by Coaxial electrospinning**  
Yohko Fuke and Takashi Nishino (Japan)

10:20 14C05IL  **Polymerization and Characterization of Polyester with Isosorbide and 1,4-cyclohexanedicarboxylic acid**  
Won Jae Yoon, Kwang Sae Oh, Jun Mo Koo and Seung Soon Im (Korea)

11:00 14C07  **Chemical Synthesis and Biodegradation of Bio-Based PHB**  
Yutaka Tokiwa, Shoei Teruya, Hiroto Yokaryo, Takao Raku, Miho Hiraga and Kanako Washida (Japan)

**M. Ashiuchi, presiding**

11:20 14C08IL  **TEMPO-oxidized cellulose nanofiber: Fundamentals and potential applications of new bio-based nanomaterials**  
Akira Isogai (Japan)

12:00 14C10  **Starch-based materials from pehuen seeds (Araucaria araucana (Mol) K. Koch)**  
Johanna Castano, Johanna Castano, Saddys Rodriguez, Claudia Carrasco and Rebeca Bouza (Chile)

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**Friday, December 14 (afternoon)**

**J. P. Gong, presiding**

14:00 14C11IL  **Rational Fabrication of Soft Polymeric Nanoobjects with Defined Shape**  
Yongming Chen (China)

14:40 14C13  **Novel chemo-reforming of a water-soluble biopolymer, poly-γ-glutamate, giving self-healing superabsorbent materials**  
Makoto Ashiuchi, Haruna Oya, Nogio Oka, Ken-Ichi Sano and Toshifumi Hiraoki (Japan)

**H. Uyama, presiding**

15:00 14C14IL  **Bioplastics Advances and Sustainability**  
Jim Lunt (U.S.A.)

15:40 14C16  **Development of cardanol-bonded cellulose bioplastics to be used durable products**  
Shukichi Tanaka, Hideki Honzawa and Masatoshi Iji (Japan)

16:00 14C17  **Chemical modification of cellulose for fiber processing**  
Hidekazu Kano, Shogo Hamanaka, Yoshitaka Aranishi, Yuhei Maeda and Yoshiyuki Nishio (Japan)

**K. Numata, presiding**

16:20 14C18IL  **High-performance Biopolymers Derived from Aromatic Microbial Chemicals**  
Tatsuo Kaneko, Seiji Tateyama, Siqian Wang, Katsuaki Yasaki and Kai Kan (Japan)
Development of edible film based on pectin extracted from banana peel with glycerol as plasticizer
Nugraha Edhi Suyatma, Endang Prangdimurti, Usman Ahmad, Muhammad S. Akili and Yutaka Ishikawa (Indonesia)

T. Kaneko, presiding

Practical application of catalyst technology in synthesis of monomer for commodity plastics from biomass-derived materials
Yuichirou Hirai, Yasuteru Kajikawa, Hirokazu Matsuda and Takashi Arai (Japan)

Rapid and efficient gene delivery into plant cells using fusion peptide carrier
Keiji Numata, Yutaka Kodama and Takeshi Yoshizumi (Japan)

Wednesday, December 12 (morning)

9:00 12D01 Rheology of end-aggregating polymers
Hiroshi Watanabe, Takashi Uneyama and Shinya Suzuki (Japan)

9:20 12D02 Phase Behavior of Block Copolymer/Graft Copolymer Blends
Chieh-Tsung Lo and Yen-Tzu Chen Chen (Taiwan)

9:40 12D03IL Templated Functional Nano/Micro-structured Materials
Tomokazu Iyoda, Kaori Kamata, Motonori Komura and Keiji Nagai (Japan)

10:20 12D05 Effect of Polymer Chain Topology on Interdiffusion of Polystyrene Bilayer Films
Daichi Ida, Daisuke Nakatomi and Takenao Yoshizaki (Japan)

11:00 12D07IL Block copolymer micelles: mechanism(s) of equilibration
Timothy P. Lodge, F. S. Bates and J. Liu (U.S.A.)

Wednesday, December 12 (afternoon)

14:00 12D11 Self-assembly of Rod-shaped Polymer Brushes with Mesogenic Side Chains: Structural Parameters for Regular 2D Lattice Formation and Macroscopic Ordering upon Hot Pressing
Zhen Chen, Yi-Tsu Chan, Jose M. Lobez, Takashi Kajitani, Atsuko Kosaka, Takanori Fukushima and Takuzo Aida (Japan)

14:20 12D12 Lamellar Assembly of the Positive-Negative Birefringence Spherulites in Poly(ethylene adipate) and Its Blend with Phenoxy Graecia Lugito and Eamor M. Woo (Taiwan)

14:40 12D13IL Layer-by-Layer Assembled Multifunctional Nanoscale Coatings
Gero Decher (France)

15:20 12D15 Control of Polyion Complexes Nano-Architectures by Tuning Polymer Composition and Concentration
Arie Wibowo, Akihiro Kishimura, Hiroyuki Matsuda, Yasutaka Anraku, Satomi Osanai, Haruko Hirose and Kazunori Kataoka (Japan)

15:40 12D16 Effects of Chain Configuration on Crystalline Lamellae and Amorphous Phase Behavior in Poly(3-hydroxy butyrate) Blends with Tactic Poly(methyl methacrylate)
Degradable Polymers Derived from Polyhydroxyl Natural Products and/or Incorporated into Functional Nanoscopic Objects: A special emphasis toward degradable materials for orthopedic, drug delivery and other applications

Céline J. Besset, Samantha L. Kristufek, Ang Li, Alexander T. Lonnecker, Koichiro Mikami, Sandani Samarajeewa, Shiyi Zhang and Karen L. Wooley (U.S.A.)

D. Kawaguchi, presiding

Microdomain Structures with High Refractive Index Difference Induced by Selective Solvents in Semi-Dilute Solutions of Block Copolymers and Application to Non-linear Optical Devices

Shigeru Okamoto, Akifumi Matsushita and Yuya Yamamoto (Japan)

Synthesis and Microphase Separation Structure of ABA-type Amphiphilic Triblock Copolymer Having a Liquid Crystalline Mesogene Pendant Group in the Monomer Unit of A-block

Shingo Hadano, Shigeru Watanabe, Motonori Komura, Tomokazu Iyoda, Fen Zhang and Wantai Yang (Japan)

Density Multiplication by Directed Self-assembly of Lamellae Forming PS-P2VP thin films via Solvent Annealing

Yoshiihito Ishida, Marco Bedolla, Ricardo Ruiz, Lei Wan, Atsushi Kameyama and Paul Nealey (Japan)

Dynamic polymer brush at water interface

Hideaki Yokayama, Manabu Inutsuka, Masato Shirakawa, Kohzo Ito and Norifumi Yamada (Japan)

Thickness effect on crystallization behaviors of poly (3-hydroxybutyrate) thin films on Si substrates

Sono Sasaki, Akiyoshi Yasuda, Yasuha Ishii, Masaki Deguchi, Shinichi Sakurai, Noboru Ohta, Hiroyasu Masunaga and Masaki Takata (Japan)

Monte Carlo Simulation Method for Quantitative Analysis of 2-Dimensional Small-Angle X-ray Scattering Patterns of Polymer Solids

Daisuke Tahara and Kohji Tashiro (Japan)

Multiscale Modeling of a Single Particle Growth in Syndiotactic Polymerization of Styrene

Saad Sultan (Malaysia)

Atomistic Simulations of Short Chain Branched Polyethylene Melts: Effect of Comonomer on Structure and Properties

Krzysztof Moorthi, Kazunori Kamio, Javier Ramos and Doros N. Theodorou (Japan)

Molecular Dynamics at Chain Ends of Polystyrene

Yohei Miwa (Japan)

Functional Supramolecular Polymers and Higher Order Networks

Samuel I. Stupp (U.S.A.)

Reversible linear-cyclic polymer topology conversion using [1]polyrotaxane

Takahiro Ogawa, Naoya Usuki, Kazuko Nakazono and Toshikazu Takata (Japan)

Recognition of Polymer Side Chains by Cyclodextrins

Akihito Hashidzume and Akira Harada (Japan)

Design of the molecular and electronic structures of metallopolymers composed of fused salphen complexes

Keisuke Yagi and Hirohiko Houjou (Japan)

Dimensions and Intermolecular Interactions of Rigid Cyclic Polymers in Solution

Ken Terao, Natsuki Asano, Kazuya Shigeuchi, Keiko Oyamada, Shinichi Kitamura and Takahiro Sato (Japan)
Thursday, December 13 (afternoon)

**S-3 Emergent Phenomena**

**T. Seki, presiding**

14:00 13D11IL  Electrically Tunable Diffractive and Photonic Elements based on Holographic Patterning of Polymer-LC Composites and Elastomers
Joachim Stumpe (Germany)

14:40 13D13IL  Biosilica Inspired Supramolecular Strategy for Temporally and Specially Controlled Mineralization
Ren-Hua Jin (Japan)

**T. Kato, presiding**

15:20 13D15IL  Design of Biotic-Abiotic Interfaces using Liquid Crystals
Nicholas L. Abbott (U.S.A.)

16:00 13D17  Discotic Ionic Liquid Crystals of Triphenylene as Excellent Dispersants for Orienting Single-Walled Carbon Nanotubes: Toward Anisotropic Soft Electrical Conductors
Jeongho Lee, Yohei Yamamoto, Takanori Fukushima and Takuzo Aida (Japan)

16:20 13D18  Fabrication of Free-standing Membrane of Microphase-Separated Liquid Crystalline Block copolymer and PEO Crystallization in Cylindrical Microdomains
Mami Miyatake, Nanae Yamashita, Hideaki Komiyama, Motonori Komura, Keiji Nagai, Tomokazu Iyoda, H. Shimura, Y. Marutani and M. Kimura (Japan)

**J. Stumpe, presiding**

16:40 13D19  Light-driven morphology inductions and alternations in liquid crystalline polymer thin films
Takahiro Seki, Masami Sano, Yuya Shinohara, Yoshiyuki Amemiya, Wenhan Li, Tomoki Dohi, Mitsuo Hara, Osamu Haba, Koichiro Yonetake and Shusaku Nagano (Japan)

17:00 13D20  Liquid Crystal Elastomer Particles: Control of Size, Shape and Anisotropic Optical Properties
Kirsty Holdsworth and Verena Gortz (U.K.)

17:20 13D21  Well-ordered periodic nano-structure formed by ABA triblock copolymers with side-chain liquid crystalline A blocks and main-chain liquid crystalline B block
Ryohei Ishige, Masatoshi Tokita, Junji Watanabe, Hideyuki Otsuka and Atsushi Takahara (Japan)

17:40 13D22  Structural control of a helical domain formed by a linear triblock terpolymer
Takeshi Higuchi, Ryohei Ishige, Jin Nishida, Atsushi Takahara and Hiroshi Jinnai (Japan)

Friday, December 14 (morning)

**S. Fujii, presiding**

9:00 14D01IL  Looking Beyond Fibrils: Evolution Guided Polymer Adhension
Alfred J. Crosby, Michael J. Bartlett, Daniel R. King and Duncan J. Irsichick (U.S.A.)

9:40 14D03IL  Mussel-inspired catecholamine polymers for nano/bio/energy technologies
Haeshin Lee (Korea)

**M. Shimomura, presiding**

10:20 14D05IL  Biological and bio-inspired microstructured adhesives (BIMSA)
Stanislav N. Gorb, Lars Heepe and Alexander E. Kovalev (Germany)

11:00 14D07  Analysis of Bio-inspired Adhesive Surface
Yu-Yun Lin (Taiwan)

**E. Sato, presiding**

11:20 14D08  Fabrication of Urushi-nanodecals and Their Application to Surface Modification
Hirohmi Watanabe, Aya Fujimoto and Atsushi Takahara (Japan)
11:40 14D09  Environmentally Friendly Water Lubrication System Using Polyzwitterion Brushes
Motoyasu Kobayashi, Myo Minn, Rika Yamamoto, Ai Takenaka, Hiroyoshi Tanaka, Jyoichi Sugimura and Atsushi Takahara (Japan)

12:00 14D10  Mechanical and Tribological Properties of Surface Tethered Bio-based Poly(α-methylene-γ-butyrolactone) Brushes
Yuji Higaki, Ryosuke Okazaki and Atsushi Takahara (Japan)

**Friday, December 14 (afternoon)**

* M. Kobayashi, presiding

14:00 14D11IL  Creation of Superhydrophobic Surfaces on Polymers
Osamu Takai (Japan)

14:40 14D13IL  Nano-suit keeps animal’s life in extreme conditions
Takahiko Hariyama, Y. Takaku, H. Suzuki, I. Ohta, D. Ishii, Y. Muranaka and M. Shimomura (Japan)

* A. Hozumi, presiding

15:20 14D15IL  Biomimetic Surface Materials Prepared by Self-Organization
Masatsugu Shimomura (Japan)

16:00 14D17  Wetting transition from Cassie-Baxter to Wenzel states on textured polymer surface
Daiki Murakami, Hiroshi Jinnai and Atsushi Takahara (Japan)

16:20 14D18  Volume shrinkage of polymer thin films and their application to reversible wettability control
Eriko Sato, Sayoko Nagai and Akikazu Matsumoto (Japan)

* Y. Higaki, presiding

16:40 14D19  Function of Photoresponsive Alternating Amphiphilic Molecule in Phospholipids
Tatsuya Shima, Takahiro Muraoaka, Tsutomu Hamada, Masamune Morita, Hajime Fukuoka, Takashi Sagawa, Akihiko Ishijima, Masahiro Takagi and Kazushi Kinbara (Japan)

17:00 14D20  A novel method of enhancing hydrophilicity of PET surface through melt blending process
Ahmad Rezaei Kolahchi, Abdellah Ajji and Pierre Carreau (Canada)

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**Room E**

**Wednesday, December 12 (morning)**

* A. Takahara, presiding

9:20 12E02  Preparation of Polystyrene/Highly Crystalline Magnesium Hydroxide Composite Particles having Core-Shell Morphology by Seeded Dispersion Sol-Gel Process in an Ionic Liquid
Keigo Kinoshita, Hideto Minami, Hiroshi Yanagimoto and Tomoki Tsuji (Japan)

9:40 12E03  Physisorption of neutral poly(dioctylfluorene) onto silica surface suspended in chloroform
Ayako Nakao and Michiya Fujiki (Japan)

10:00 12E04  Synthesis of Graphene Oxide “Armoured” Polymeric Nanoparticles by Miniemulsion Polymerization
Per B. Zetterlund, S. H. Che Man, Stuart C. Thickett and Michael R. Whittaker (Australia)

10:20 12E05  Tip-enhanced Raman spectroscopy study of intermolecular interactions and molecular orientation at interface of styrene-butadiene rubber/multiwall carbon nanotubes nanocomposites
Toshiaki Suzuki, Xinlei Yan, Yasutaka Kitahama, Harumi Sato, Tamitake Itoh, Takeshi Miura and Yukihiro Ozaki (Japan)
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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
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<tr>
<td>10:40</td>
<td>12E06</td>
<td>Structure and Mobility of Polycarbonate at Metastable Phase Induced by Mechanical Stress</td>
<td>Yasuhiro Matsuda and Shigeru Tasaka (Japan)</td>
</tr>
<tr>
<td>11:00</td>
<td>12E07</td>
<td>The intelligent function of newly designed side chain crystalline block copolymer</td>
<td>Shigeru Yao, Hiroshi Sekiguchi, Wataru Ishino, Takuya Uto, Hiroaki Otsubo, Yu Yamachika, Satoru Ichikawa and Daisuke Tatsumi (Japan)</td>
</tr>
<tr>
<td>11:20</td>
<td>12E08</td>
<td>Structural Relaxation of Polystyrene at Interfaces</td>
<td>Hirofumi Tsuruta, Ayanobu Horinouchi and Keiji Tanaka (Japan)</td>
</tr>
<tr>
<td>11:40</td>
<td>12E09</td>
<td>Phase transition of single layer appeared on the surface of micro phase separated structure</td>
<td>Yurika Hirano, Takayuki Shiraishi, Masayuki Iwasa and Hirohsa Yoshida (Japan)</td>
</tr>
<tr>
<td>12:00</td>
<td>12E10</td>
<td>Enhancement of Proton Transport Properties by an Oriented Structure in Polymer Thin Films</td>
<td>Yuki Nagao, Jun Matsui, Hirotsugu Hiramatsu and Tokuji Miyashita (Japan)</td>
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**Wednesday, December 12 (afternoon)**

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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>14:00</td>
<td>12E11IL</td>
<td>Sustainable Polymers from Biomass</td>
<td>Ann Christine Albertsson and Ulrica Edlund (Sweden)</td>
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<tr>
<td>14:40</td>
<td>12E13</td>
<td>Ultra-Sensitive Analysis of Enzymatic Hydrolysis of Biomass Using Surface Pitting on Nanofibrous Matrix</td>
<td>Shigeru Deguchi and Mikiko Tsudome (Japan)</td>
</tr>
<tr>
<td>15:00</td>
<td>12E14</td>
<td>Preparation of functional nanoporous thin films from block copolymer/ metal salt hybrids by immersing in water</td>
<td>Yoshio Sageshima, Atsushi Noro and Yushu Matushita (Japan)</td>
</tr>
<tr>
<td>15:20</td>
<td>12E15</td>
<td>Fabrication of nanoporous ultrathin polymer films by sovent etching of phase-separated polymer blends</td>
<td>Shinji Takeoka and Hong Zhang (Japan)</td>
</tr>
<tr>
<td>15:40</td>
<td>12E16</td>
<td>Highly Ordered SiO₂ nanorod array with High Aspect-ratio via Block Copolymer Templating Process</td>
<td>Nanae Yamashita, Kohei Aida, Hiroshi Yoshida, Motonori Komura, Keiji Nagai and Tomokazu Iyoda (Japan)</td>
</tr>
<tr>
<td>16:00</td>
<td>12E17</td>
<td>Three-dimensional morphologies of block copolymers assembled between lithographically-defined chemical template and top coats</td>
<td>Hiroshi Yoshida, Jeong In Lee, Hyo Seon Suh, Huiman Kang, Christopher Thode, Lei Wan, Abelardo Hernandez, Yasuhiro Tada, Juan de Pablo and Paul Nealey (Japan)</td>
</tr>
<tr>
<td>16:20</td>
<td>12E18</td>
<td>Liquid Crystal Induced Anomalously Regular Microphase Separated Nanocylinders in Block Copolymer Film</td>
<td>Motonori Komura, Hideaki Komiyama and Tomokazu Iyoda (Japan)</td>
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<td>16:40</td>
<td>12E19IL</td>
<td>Self-assembled nano-probe for selective detection and imaging proteins</td>
<td>Itaru Hamachi (Japan)</td>
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<td>17:20</td>
<td>12E21</td>
<td>Supramolecular Assembly and Energy Transfer of Photosynthetic Antenna Proteins in Lipid Bilayers</td>
<td>Takehisa Dewa, Ayumi Sumino, Tomoyasu Noji, Yuki Nakano, Natsuko Watanabe, Masaharu Kondo and Mamoru Nango (Japan)</td>
</tr>
<tr>
<td>17:40</td>
<td>12E22</td>
<td>Structural Changes in Humidity-Induced Stress Generation of Regenerated Silk Fibroin Samples</td>
<td>Taiyo Yoshioka, Kohji Tashiro, Yutaka Kawahara and Andreas K. Schaper</td>
</tr>
</tbody>
</table>
18:00 12E23 Relationship between lecithin mobility and emulsion stability by $^1$H- and $^{31}$P-NMR
Natdanai Fafaungwithayakul and Shingo Matsukawa (Japan)

Thursday, December 13 (morning)

E. Yashima, presiding
9:00 13E01 Understanding Chiroptical Switching of Helical Polymer Supramolecules Based on a Mathematical Model
Nozomu Suzuki, Michiya Fujiki and Julian Koe (Japan)
9:20 13E02 Main-chain chiral polymers as catalyst in asymmetric benzylation of glycine derivative
Md. Masud Parvez, Naoki Haraguchi and Shinichi Itsuno (Japan)
9:40 13E03IL Transfer of Chirality from Molecule to Phase in Self-assembled Chiral Block Copolymers
Rong-Ming Ho (Taiwan)

H. Iida, presiding
10:20 13E05 One-step fabrication of fluorescent polystyrene-metal oxide nano-sandwich film by phase separation
Naoki Mizutani, Kento Ozaki, Roman Selyanchyn and Seung-Woo Lee (Japan)
10:40 13E06 Unique response of PEG-modified semiconductor clusters in aqueous media
Katsuaki Konishi and Naoto Fukunaga (Japan)
11:00 13E07 Effect of cyclic deformation on strain-induced crystallization of in situ silica/natural rubber composites
Atitaya Tohsan and Yuko Ikeda (Japan)

K. Konishi, presiding
11:20 13E08 Supramolecular Polymer Nanocomposites using Hydrogen Bond Functionalized Silica Nanoparticles
Colin Neikirk, Jae Woo Chung and Rodney Priestley (U.S.A.)
11:40 13E09 Anomalous Anisotropic Thermoresponse of NIPAM-based Hydrogels Doped with Uniformly Aligned Titania Nanosheets
Younsoo Kim, Mingjie Liu, Yasuhiro Ishida, Yasuo Ebina, Takayoshi Sasaki and Takuzo Aida (Japan)
12:00 13E10 One-step preparation and application of template assisted polystyrene-titana hybrid micro micro beads
Roman Selyanchyn and Seung-Woo Lee (Japan)

Thursday, December 13 (afternoon)

H. Ihara, presiding
14:00 13E11 Mechanical Characterization of Polymer Gels with Scanning Microscopic Light Scattering
Md. Hasnat Kabir, Yusuke Watanabe, Jin Gong and Hidemitsu Furukawa (Bangladesh)
14:20 13E12 Main-Chain Optically Active Riboflavin Polymer for Asymmetric Catalysis and Its Vapochromic Behavior
Hiroki Iida, Soichiro Iwahana, Tomohisa Mizoguchi and Eiji Yashima (Japan)
14:40 13E13 Mechanical properties of endlinking polymer gels having rigidity
Shoichiro Yamamura, Toshiyuki Watanabe, Hidemitsu Furukawa and Naofumi Naga (Japan)
15:00 13E14 Novel gel-forming polynuclear electrolytes for ionid liquids
Masaru Yoshida, Jun’ichi Nagasawa and Hajime Matsumoto (Japan)

J. P. Gong, presiding
15:20 13E15 Direct Observation of Heterogeneity During Sol-to-gel Transition of Supramolecular Hydrogel
David Penaloza, Atsuomi Shundo, Keigo Matsumoto, Masashi Ohno, Katsuaki Miyaji, Masahiro Goto and Keiji Tanaka (Japan)
15:40 13E16 Tunable Viscoelastic Properties and Heterogeneity in Supramolecular Hydrogel
Atsuomi Shundo, Keiko Mizuguchi, Keigo Matsumoto, Masashi Ohno, Katsuaki Miyaji, Masahiro Goto and Keiji Tanaka (Japan)
16:00 13E17 Facile control of mechanical property of hybrid hydrogels through nanoparticles-mediated polymer network
Hiroyuki Goto, Makoto Takafuji and Hirotaka Ihara (Japan)
16:20 13E18 Complex formations and structures of noria and linear polyethers
Toshiyuki Kataoka, Hiroto Kudo and Takayuki Ikehara (Japan)

A. Maruyama, presiding
16:40 13E19 Discrete Non-Linear PEGs for Protein Manipulation
Takahiro Muraoka, Kota Adachi, Mihoko Ui, Shunichio Kawasaki, Nabanita Sadhukhan, Haruki Obara, Hidehito Tochio, Masahiro Shirakawa and Kazushi Kinbara (Japan)
17:00 13E20 Discrete Poly(ethylene glycol) Assisted Protein Manipulation
Nabanita Sadhukhan, Takahiro Muraoka, Mihoko Ui and Kazushi Kinbara (Japan)
17:20 13E21 Next generation of PEG modification technology on biomolecules
Yutaka Ikeda, Jinya Katamachi, Hiromichi Kawasaki and Yukio Nagasaki (Japan)

Friday, December 14 (morning)

S. Kanaoka, presiding
9:20 14E02 Synthesis, Characterization and Coating Applications of Novel Perfluorinated Acrylate Monomer
Tuba Cakir Canak and Ersin Serhatli (Turkey)
Tomoaki Matsuo, Daisuke Aoki, Yasuhito Koyama, Satoshi Uchida and Toshikazu Takata (Japan)
10:00 14E04 Synthesis and Crosslinking of Siloxane Based hybrid Polymers
Ali Demirci, Jun Matsui, Masaya Mitsuishi, Akira Watanabe and Tokui Miyashita (Japan)

M. Kamigaito, presiding
10:20 14E05 Synthesis and functions of two-dimensional imine-based covalent organic frameworks
Xiong Chen, Atsushi Nagai and Donglin Jiang (Japan)
10:40 14E06 Synthesis of electron donor-acceptor covalent organic framework and photoinduced electron transfer event
Shangbin Jin, Seiya Takahashi, Ko Furukawa, Toshikazu Nakamura, Mustafa Supur, Matthew Addicott, Mohamed E. El-khouly, Stephan Irle, Shuninchi Fukuzumi and Donglin Jiang (Japan)
11:00 14E07 Core-Shell Strategy for the Synthesis of Conjugated Microporous Polymers with Tunable Emission Bands
Yanhong Xu and Donglin Jiang (Japan)

G. Matsuba, presiding
11:20 14E08 Strong melting point depression of two-dimensional folded chain crystals of isotactic poly(methyl methacrylate)s observed by in-situ high-resolution atomic force microscopy
Yuma Takanashi and Jiro Kumaki (Japan)
11:40 14E09 Two-Dimensional Structures of Isobutenyl Compounds Revealed by Scanning Tunneling Microscopy
Yoshihiro Kikkawa, Mayuko Takahashi, Masatoshi Kanesato and Kazuhisa Hiratani (Japan)
Control of Phase Separation Dynamics of Aqueous Thermo-responsive Polymers: Laser T-jump and Single Molecule Fluorescence Studies
Yasuyuki Tsuboi, Takanori Tada, Tatsuya Shoji, Noboru Kitamura, Karel Goossens, Hiroshi Uji-i, Johan Hofkens and Yukiteru Katsumoto (Japan)

Friday, December 14 (afternoon)

K. Tashiro, presiding

14:00 14E11 Single Crystal of Isotactic Polypropylene Showing Near-Equilibrium Melting Temperature - Crystallization via Mesophase -
Koji Nishida, Harutoshi Asakawa, Tatsumasa Hirano, Rintaro Inoue, Toshiji Kanaya and Masatoshi Tosaka (Japan)

14:20 14E12 Structural formation in crystalline polymers during shear flow
Go Matsuba, Zhao Yunfeng and Chiba Yasuhiro (Japan)

14:40 14E13 Nanoscale IR study of Crystalline Phase of Spherulite and Laminates Domains within the PVdF Films
Tadashi Awatani, Hiromi Midorikawa, Nobuo Kojima, Jiping Ye, Mike Lo and Kevin Kjoller (Japan)

T. Kanaya, presiding

15:00 14E14 Development of Simultaneous Measurement System of Wide- and Small-Angle X-ray Scatterings and Transmission-type FTIR Spectra for the Structural Studies of Phase Transition and Crystallization Phenomena of Crystalline Polymers
Hiroko Yamamoto, Kohji Tashiro, Taiyo Yoshioka, Tran Hai Ninh, Shigeru Shimada and Takeshi Nakatani (Japan)

15:20 14E15 The phase structure of epoxy alloy and its preparation
Yanhong Zhang, Jigao Yang, Keiichiro Nomura, Syunjii Kono and Sadayuki Kobayashi (China)

15:40 14E16 In-situ investigation of nano-structural development in epoxy alloys
Keiichiro Nomura, Takayuki Fujiwara and Sadayuki Kobayashi (Japan)

16:00 14E17 Physical Properties of Syndiotactic Poly(Styrene-co-Divinylbenzene) depending on degree of cross-linking
Satoshi Akasaka and Takahiko Nakaoki (Japan)

K. Nishida, presiding

16:20 14E18 Significant improvement of Physical Properties of poly(vinyl alcohol) prepared by freeze / thaw metod
Taishi Fukumori and Takahiko Nakaoki (Japan)

16:40 14E19 Simultaneous Synchrotron SAXS/WAXD Study of Composition Fluctuations, Cold-Crystallization, and Melting in Biodegradable Polymer Blends of Cellulose Acetate Butyrate and Poly(3-hydroxybutyrate)
Harumi Sato, Nattaporn Suttiwijitpukdee, Takeji Hashimoto and Yukihiro Ozaki (Japan)

17:00 14E20 Structural Changes in Phase Transitions of Green Polymers including Poly(L-lactic Acid) and trans-1,4-Polysoprene as Studied by Temperature- and Time-Dependent Measurements of X-ray Scatterings and Vibrational Spectra
Kohji Tashiro, Kaewkan Wasanasuk and Paramita Jaya Ratri (Japan)

17:20 14E21 Dispersion Behavior of Hydrophilically Modified Poly(dimethylsiloxane) in Mixtures of Water and Methanol
Takashi Okuhara, Akihito Hashidzume and Takahiro Sato (Japan)

Friday, December 14 (morning)

9:00 14F01IL Soluble Polyelectrolyte Complex to Engineer Biopolymer Assembly and Functions

Room F

Friday, December 14 (afternoon)

S-6 Biomaterials and Health

, presiding
9:40 14F03 Novel Strategy for Cancer Cell Specific Oligonucleotide Therapeutics with Intracellular Environmental Condition Responsible Peptide Ribonucleic Acids
Takehiko Wada, Ryohei Uematsu, Tatsuya Mizutani, Akira Nagami, Seiji Sakamoto, Yasuyuki Arai, Asako Yamayoshi, Akira Murakami, Shiroh Futaki and Yoshihisa Inoue (Japan)

10:00 14F04 Sialyllactose -modified DNA as a inhibitor of influenza hemagglutinin
Yasuhiro Ebara, Kunihiro Kaihatsu and Nobuo Kato (Japan)

T. Wada, presiding

10:20 14F05 Effect of PEG chain on pDNA packaging structure within polyplex micelle.
- Idea from block/homo-polymer integrated polyplex micelles-
Kensuke Osada, Qixian Chen, Theofilus Tockary and Kazunori Kataoka (Japan)

10:40 14F06 Coverage of PEG on pDNA upon complexation with PEG-b-catiomer and resulted packaged structures within polyplex micelles
Kaori Machitani, Kensuke Osada, Theofilus A. Tockary, Qixian Chen, Anjaneyulu Dirisala and Kazunori Kataoka (Japan)

11:00 14F07 Estimation of PEG tethering density of rod-shaped polyplex micelles
Theofilus A. Tockary, Kensuke Osada, Chen Qixian, Anjaneyulu Dirisala, Kaori Machitani, Yanmin Li and Kazunori Kataoka (Japan)

K. Osada, presiding

11:20 14F08 Preparation of poly(ethylene glycol)-modified PAMAM dendrimers-gold nanorod conjugates and their photothermal properties
Xiaojie Li, Eiji Yuba, Atsushi Harada and Kenji Kono (Japan)

11:40 14F09 Preparation of thermo-responsive polymer brush on monolithic silica rod for high-speed analysis of bioactive compounds
Kenichi Nagase, Jun Kobayashi, Akihiko Kikuchi, Yoshikatsu Akiyama, Hideko Kanazawa and Teruo Okano (Japan)

12:00 14F10 Thermoresponsive interfaces for separation of biomolecules
Akihiko Kikuchi, Yusuke Takayama, Masayuki Seo, Naoto Iwashita, Kazumi Sakamoto and Taka-Aki Asoh (Japan)

Friday, December 14 (afternoon)

A. Kikuchi, presiding

14:00 14F11IL Cellulose Nanocrystal Fiber as Hydrolytic Catalyst
Takeshi Serizawa (Japan)

14:40 14F13 Chemoenzymatic Synthesis of Polypeptides Block Copolymers
Peter Baker and Keiji Numata (Japan)

15:00 14F14 Preparation of Nanostructured Materials from Elastin-Like Block Polypeptides
Duc H.T. Le, Shintaro Oshiro, Ayae Sugawara-Narutaki and Tatsuya Okubo (Japan)

T. Serizawa, presiding

15:20 14F15 Glyco/aliphatic-linked styrenic amphiphiles. Synthesis, micelle formation property, and polymerization tendency
Daichi Togashi, Issei Otsuka, Redouane Borsali, Atsushi Narumi and Seigou Kawaguchi (Japan)

15:40 14F16 Application of Pectin-Based Edible Coating and Blanching to Reduce Acrylamide Formation in Frying Process of Banana Chips
Nugraha Edhi Suyatma, Endang Prangdimurti, Kamaliah Ulfah and Yutaka Ishikawa (Indonesia)

16:00 14F17 A Characterizations study of xylitol-plasticized starch bionanocomposites prepared via extrusion
Huihua(Amy) Liu and Deeptangshu Chaudhary (Australia)

K. Kono, presiding

16:20 14F18 Poly (lactide -co- glycolide) fibers for medical applications: An overview
Bahareh Azimi, Parviz Nourpanah, Shahram Arbab and Mohammad Rabiee (Iran)

16:40 14F19 Advanced Polylactic acid Thin Film with Flexibility and Dimensional Stability
Go-hei Yamamura, Hiroshi Shinnmadate, Taisei Matsumoto, Sadanori Kumazawa, Masahiro Kimura and Jun Sakamoto (Japan)

17:00 14F20 Preparation and mechanical properties of the magnesium hydroxide/poly (L-lactide) composite
Kiriko Kato, Naohide Tomita and Suong-Hyu Hyon (Japan)

17:20 14F21 Syntheses of Cyclic Poly(lactones) by Zwitterionic Ring Opening Polymerization Catalyzed N-Heterocyclic Carbene
Yinghuai Zhu (Singapore)
Room P1

- POSTER SESSIONS SCHEDULE (see Note 1)

  9:30 - 12:00 Mounting Posters
  12:30 - 13:15 Obligation time for Group “a” (see Note 2)
  13:15 - 14:00 Obligation time for Group “b” (see Note 2)
  17:30 - 18:00 Removing Posters

- Notes:
  1) There are TWO Poster Session Rooms: This is the program for Room P1.
  2) For the assignment to Group "a" or "b", refer to the last letter of the poster ID code.
     (example) 12P1S4-001a:  Dec. 12, Poster Session Room P1, Selected Topic S4, Paper #001, Group "a"

Wednesday, December 12 (afternoon)

S-4  Energy Conversion

12P1S4-001a  New Battery Separator Composed of Thermally Rearranged Polybenzoxazole
             Ji Hoon Kim, So Young Lee, Na Rae Kang, Kang Hyuck Lee, Moon Ju Lee, Hyung
             Kyun Yu, Jong Hun Kim and Young Moo Lee (Korea)

12P1S4-002b  Synthesis and Characterization of New Sulfonated Poly(sulfide sulfone imide)
             Copolymers for HT-PEMFC Applications
             Kang Hyuck Lee, So Young Lee, Dong Won Shin, Chenyi Wang, Young Moo Lee,
             Sang-Hyun Ahn and Kee-Jung Lee (Korea)

12P1S4-003a  Electrospinning non-woven fabrics applied to lithium battery separator
             Rumi Shinagawa, Hideki Kawasaki, Kazuko Suzuki, Koji Fujimoto and Toshimi
             Fukui (Japan)

12P1S4-004b  Synthesis and electrochemical properties of radical polymer bearing
             charge-neutralizing anionic group
             Masaumi Koyano, Kenichi Oyaizu and Hiroyuki Nishide (Japan)

12P1S4-005a  Interfacial Chain Diffusion Behavior between Unbounded Polystyrene and
             Polystyrene Brush
             Hiroshi Arita, Ai Takenaka, Norifumi Yamada, Motoyasu Kobayashi and Atsushi
             Takahara (Japan)

12P1S4-006b  Improvement of anion exchange membrane properties for fuel cell applications by
             controlling physical state of water
             Hyangmi Jung, Hidenori Ohashi, Takanori Tamaki and Takeo Yamaguchi (Japan)

12P1S4-007a  High-Speed Polymeric Actuator based on Carbon Nanotubes and Ionic Gels
             Kinji Asaka, Ken Mukai, Kenji Hata, Toribio Otero and Hideaki Oike (Japan)

12P1S4-008b  withdrawn

12P1S4-009a  Management of α-Sexithiophene Orientation on Oriented Polythiophene films for
             Photovoltaic Application
             Keisuke Takeuchi, Toshiko Mizokuro, Claire Heck, Hiroyuki Aota and Nobutaka
             Tanigaki (Japan)

12P1S4-010b  Function and characteristics of organic p/n bilayers as photoelectrodes and
             photocatalysts in the water phase
             Toshiyuki Abe and Keiji Nagai (Japan)

12P1S4-011a  Effect of salt addition to the polymer gel electrolyte on photovoltaic performance of
             flexible dye-sensitized solar cells
             Ryu Ishikawa, Hirokazu Iizuka, Yasuto Ishikawa, Jun Suzuki and Masashi
             Takahashi (Japan)

12P1S4-012b  Synthesis of new low-band gap copolymers having infrared absorption
             Marina Ide, Yoshiko Koizumi, Akinori Saeki, Takuzo Aida and Shu Seki (Japan)

12P1S4-013a  Nitroxide radical-based electrolyte for a dye-sensitized solar cell
             Takumi Okuyama, Fumiaki Kato, Kenichi Oyaizu and Hiroyuki Nishide (Japan)

12P1S4-014b  Development of Organic Photovoltaics based on Soluble Ladder Polymer as
             Electron Acceptor
             Akihiro Mori, Hiroki Higashiura, John Miller and Sadayuki Asaoka (Japan)

12P1S4-015a  Highly ordered porphyrin arrays accumulated on cylindrical phase segregation
             interface in liquid crystalline amphiphilic block copolymer thin film
             Sadayuki Asaoka, Masashi Aotani, Shunsuke Yamada, Gensuke Akimoto,
             Mitsuharu Takahashi and Takashi Tokuoka (Japan)
Redox Property of Nitroxide Radical Molecules and Cobalt Complexes Adsorbed on Nafion-Coated Electrode

Ryo Kato, Fumiaki Kato, Kenichi Oyaizu and Hiroyuki Nishide (Japan)

Polymeric Complexes as Charge-Transport Mediator in Dye-Sensitized Solar Cell

Yoshito Sasada, Fumiaki Kato, Kenichi Oyaizu and Hiroyuki Nishide (Japan)

Hydrogen Generation Using Series Circuit of Organic Thin Film Solar Cells

Atsushi Aoki, Tomoaki Hori and Takayuki Abe (Japan)

Synthesis of Poly(perylenediimide) Derivatives and Their Photovoltaic Properties

Ken Muraoka, Fumiaki Kato, Kenichi Oyaizu and Hiroyuki Nishide (Japan)

Synthesis of Viologen-Coupled Indoline Dyes and their Self-Assembly and Photovoltaic Properties

Takefumi Furuta, Satoshi Nakajima, Kenichi Oyaizu and Hiroyuki Nishide (Japan)

Electric Field-Induced Dipole Switching at Donor/Acceptor Interface in Organic Solar Cells

Yufei Zhong, Kazuhito Hashimoto and Keisuke Tajima (China)

withdrawn

High performance thin film transistors using single-walled carbon nanotubes-polymer complex via ink-jet printing

Seiichiro Murase, Geun Sang Cho, Maiko Ikeda, Junji Mata, Jun Tsukamoto, Sung Hoon Kim and Jin Jang (Japan)

Design and synthesis of zero-zero-birefringence polymers for liquid crystal displays

Shuhei Iwasaki, Houran Shafiee, Zen Satoh, Akihiro Tagaya and Yasuhiro Koike (Japan)

Design and analysis of the novel zero-birefringence pressures-sensitive adhesives to reduce the light leakage of liquid crystal displays

Satoshi Yanai, Hiroto Ito, Akihiro Tagaya, Sumihisa Oda and Yasuhiro Koike (Japan)

Photoinduced Molecular reorientation of Polymer Films Comprised of Benzoate Mesogenic Side Groups

Hitomi Matsushita, Naoki Shin, Teppei Washio, Mizuho Kondo and Nobuhiro Kawatsuki (Japan)

Asymmetric Polarization Holography: Blazed Surface Relief Formation in Azobenzene-Containing Polymeric Films

Emi Nishioka, Tomoyuki Sasaki, Hiroshi Ono, Mizuho Kondo and Nobuhiro Kawatsuki (Japan)

Donor-Acceptor-Type Low Bandgap Polymer Carrying Phenylazomethine Moiety as a Metal-Collecting Pendant Unit

Atsushi Kimoto and Yusuke Tajima (Japan)

Fabrication of High Thermostability Graded Index Polymer Optical Fibers

Yuki Sato, Ryousuke Nakao, Atsushi Kondo and Yasuhiro Koike (Japan)

Optical transmission characteristics of microscopically heterogeneous optical fibers based on poly(methyl methacrylate)

Ryusuke Suzuki, Azusa Inoue, Makoto Suga, Takaumi Sassa and Yasuhiro Koike (Japan)

Development of Dendritic structures with a Potential Gradient

Ken Albrecht and Kimihisa Yamamoto (Japan)

Optimization of the polymer-stabilizing technique of the liquid crystal blue phase for flat panel display applications

Tatsuro Mizunuma, Oo Thet Naing, Yukiko Ogawa, Hengy Ma, Hyunseok Choi, Yasutomo Nagano, Yasuhiro Haseba, Hiroki Higuchi, Yasushi Okumura and Hirotugu Kikuchi (Japan)

Synthesis of Linear-Shaped Phosphorescent Platinum(II) Complexes to Obtain
High External Electroluminescence Quantum Efficiency of Organic Light-Emitting Diodes with Horizontal Orientation
Shuichi Morinaga, Msatsugu Taneda, Takuma Yasuda and Chihaya Adachi (Japan)

Organic semiconductor laser structure by using a phenyl-dipyrenylphosphine oxide layer as electron injection layer and an exciton blocking layer for the low roll-off characteristics at high current densities and low amplified spontaneous emission threshold
Inoue Munetomo, Goushi Kenichi, Endo Kuniaki, Nomura Hiroko and Adachi Chihaya (Japan)

Effect of UV curing condition on electro-optical properties of polymer-stabilized blue phase
Thet Naing Oo, Tatsuro Mizunuma, Yasutomo Nagano, Hengyi Ma, Yukiko Ogawa, Yasuhiro Haseba, Hiroki Higuchi, Yasushi Okumura and Hirotugu Kikuchi (Japan)

The effects of poly(vinyl alcohol) and anionic surfactant on properties improvement of novel conductive poly(3,4-ethylenedioxythiophene):sulfonated polyimide (PEDOT:SPI)nano-thin films
Nathavat Romyen, Supakanok Thongyai, Piyasan Praserthdam and Gregory A Soitzing (Thailand)

Fabrication of Metal/Titanium Oxide Hybrid Nanotubes in Supramolecular Gel
Yukie Kato, Masahiro Suzuki and Kenji Hanabusa (Japan)

Novel zwitterionic low-molecular-weight gelator based on L-Lysine
Moemi Kondo, Masahiro Suzuki and Kenji Hanabusa (Japan)

Electrophoretic adhesion of hydrogel for building functional soft materials
Taka-Aki Asoh, Wataru Kawai, Eri Kawamura, Kotaro Takaishi and Akihiko Kikuchi (Japan)

Synthesis of smart hydrogels that recognize a target protein by molecular imprinting
Yoshiaki Kuriu, Akifumi Kawamura, Takashi Miyata and Tadashi Uragami (Japan)

New poly(ionic liquid)-functionalized materials by co-immobilization of cation-anion monomer pairs on silica
Hongdeng Qiu, Abul K. Mallik, Makoto Takafuji and Hirotaka Ihara (Japan)

Alternating Copolymer-Grafted Silica Composites for Separation Science: A High-Selective Organic phase for Tocopherol and Carotenoid Separation
Abul K. Mallik, Hongdeng Qiu, Makoto Takafuji and Hirotaka Ihara (Japan)

Development of Structuralized Oligoethylene Glycols with Geometrical Diversity
Haruki Obara, Takahiro Muraoka and Kazushi Kinbara (Japan)

Synthesis and metal adsorption behavior of hydrophilic sulfur-containing gels based on cyclic diethcarbonate
Haruki Kinemuchi and Bungo Ochiai (Japan)

Electrochemical properties of Biodegradable Gel polymer electrolyte containing Oligo L-lactic acid
A ram Han, Hee young Na, Jin who Hong and Hyun kyoung Kim (Korea)

Functionality and Properties of Network Polymers Formed by Photo- and Thermal Radical Polymerizations of Irgacure Dimethacrylate
Taiichi Sakurai, Isaku Sugawara, Miki Niwa and Hitoshi Tanaka (Japan)

Supramolecular Polymerization Mediated by Light
Toshihiro Sendai, Shuvendu Biswas and Takuoz Aida (Japan)

Formation of Phototriggered Surface Relief on Photopolymerizable Anthracene Film
Megumi Nakayama, Takashi Ubuakta and Yasushi Yokoyama (Japan)

Reversibly Photoresponsive Supramolecular Gels based on Organic Salt Gelators
Kazuki Nakamura, Masahiro Suzuki and Kenji Hanabusa (Japan)

Light responsive smart hydrogel
Jong su Yoo, A ram Han, Seong yun Lee, Tae jung Ahn and Hyun kyoung Kim (Korea)
Optical switching of polymer dispersed liquid crystal with azobenzene segments
Hee young Na, Jong su Yoo, Jin who Hong and Hyun kyoung Kim (Korea)

Characterization of polymeric micelle consisting of photo- and thermo-responsive
diblock copolymer
Shota Yamamoto, Jun Nakanishi, Seiichi Nakahama and Kazuo Yamaguchi (Japan)

Synthesis of photo-latent thiols and their application to thiol/ene UV-curing
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Taku Ishii and Koji Arimitsu (Japan)

Characterization of polymeric micelle consisting of photo-and thermoresponsive
diblock copolymer
Shota Yamamoto, Jun Nakanishi, Seiichi Nakahama and Kazuo Yamaguchi (Japan)

Synthesis of superacid amplifiers and their application to photoreactive materials
Kiwamu Terada and Koji Arimitsu (Japan)

Application of organic strong base generation based on photocyclization reactions
to photoreactive materials
Tomonori Ida, Nobuhiko Sakai and Koji Arimitsu (Japan)

Photosensitivity characteristics of novel acid-amplifying resists
Motoki Yonekura and Koji Arimitsu (Japan)

Preparation of inorganic particles modified with photobase-generating/base-amplifying groups and their application to UV-curing materials
Daiki Iijima, Koji Arimitsu, Yasuyuki Yamada and Takeshi Wakiya (Japan)

Influence of tri-, di- and mono-functional monomers on the adhesive property of
UV-curing ink for non-porous surface
Ken'ichi Koseki and Kyungmo Jeong (Japan)

Synthesis of Optically Active Polythiophenes Block Copolymers
Takuya Watanabe, Masahiro Yoshizawa, Yuko Takeoka and Masahiro Rikukawa (Japan)

All-conjugated graft copolymers with P3HT brushes via grafting from process
Jin Wang, Tomoya Higashihara and Mitsuru Ueda (China)

Synthesis and Characterization of Poly(thiophene)s Having Optically Active
Hydroxyl Substituent (II)
Fumiya Nakayama, Masahiro Yoshizawa, Yuko Takeoka and Masahiro Rikukawa (Japan)

Synthesis and Characterization of Malonate Methanofullerene Derivatives for
Bulk-Heterojunction Solar Cells
Tomohiro Shirosaki, Ryota Harisaki, Maki Horikawa, Shoji Nagaoka, Hirokuni Jintoku, Makoto Takafuji and Hirotaka Ihara (Japan)

Preparation and characterization of the hybrid polymer from ATRP and catalyst
transfer polycondensation for PEFC electrolyte
Kei Matsumoto, Hideo AYame, Masahiro Fujita, Yuko Takeoka and Masahiro Rikukawa (Japan)

Synthesis and Characterization of PEDOT Thin Films based on Sulfated
Polysaccharides
Maki Horikawa, Takanori Fujiki, Tomohiro Shirosaki, Shoji Nagaoka, Ryota Harisaki, Hideo Sakurai, Makoto Takafuji and Hirotaka Ihara (Japan)

Compositional effect of PVdF-co-HFP/cellulose acetate blend gel polymer electrolytes for lithium polymer batteries
Seong yun Lee, Jin who Hong and Hyun kyoung Kim (Korea)

Optical and thermal properties of polythiophenes bearing naphthalene side groups
Mari Watanabe and Masashi Kijima (Japan)

Transparent conductive thin films based on polythiophene nanofibers
Aron Gaoa and Simomura Takeshi (China)

Polymer Electrolyte Membranes Based on Poly(m-phenylene)s with Sulfonic Acid via Long Alkyl Side Chains
Xuan Zhang, Tomoya Higashihara and Mitsuru Ueda (China)

Sulfonated block copolymer containing flexible alkylsulfonated side chain as a
proton exchange membrane for fuel cell application
Li Sheng, Tomoya Higashihara and Mitsuru Ueda (China)

Spin Transport in Poly(metalarenylsilane)
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Pore Surface Engineering for the Pinpoint Functionalization of Two-dimensional Polymers and Framework
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<td>Synthesis and properties of linear and hyperbranched optically active polyfluorene derivatives</td>
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<td>12P1G4-088b</td>
<td>Vibrational spectroscopic study on high thermal conductivity mechanism of phenylbenzoate twin mesogen epoxy polymers</td>
<td>Yuzo Itoh, Chikako Nakajima, Hikaru Natori, Tatadomo Kawai and Haruki Okawa (Japan)</td>
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<td>Design of Low-Band-Gap Carbon Nitride Copolymers for Photocatalytic Hydrogen Evolution under Visible Light</td>
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Plasmon-based Optical Trapping of Polymer microgels Labeled with a Fluorescent Probe

Freezing-Induced Chromism in Polymer Gels with Mechanocleavable Dynamic Covalent Bonds

Preparation of shaggy fiber adsorbent through high pressure electron beam graft polymerization

Research on metallic adsorption efficiency of Cyanamide derivatives resin aiming at rare element

Creating Highly Effective Anti-fouling Polymer Surface With Well-ordered Packing Perfluoroalkyl Groups

Polymerization of a Bifunctional Epoxy-Styrene Monomer via Orthogonal Polymerization Techniques

Multihydroxy-functional macromonomers based on poly(glycerol)

Amphiphilic Miktoarm Star Polymers with Multiple Hydroxyl Functionalities

Surface improvement of Electrospun nylon-6 nanofibers using layer-by-layer assembly

Preparation of micro-spherical MnCO$_3$ templated TiO$_2$ nanocomposite via liquid phase deposition process

A novel mucoadhesive hydrophobic polymer of p-Coumaric acid thiolated chitosan

Synthesis and properties of mucoadhesive chitosan-5-amino-2-mercaptopbenzimidazole for hydrophobic drug delivery system

Synthesis and Aqueous Solution Behaviour of Inner Salt Polymers from Styrene Precursor Sulfobetaines

Proposal of a new method to realize high-impact polymer alloy

The Development of High Toughness Thermo Plastic Epoxy Polymer and Application to Composite Materials

High modulus regenerated cellulose fiber reinforced by CNT

Elucidation of the Reinforcing Mechanism in Carbon Nanotube/Rubber Nanocomposites

Mechanical Properties of Mwcnt/Elastomer Nanocomposites and the Cellulation
Hiroyuki Ueki, Toru Noguchi, Kenichi Niihara, Shigeki Inukai, Akira Magario and Morinobu Endo (Japan)

Synthesis of Aromatic polyhydroxyamides (PHAs) Containing Imide Ring in the Main Chain and Their Thermal Properties
Jin Woo Han, Chang Hoon Lee and Jae Kon Choi (Korea)

Formation Mole Percentages of Polymer Brush and Root Grafted onto Porous Polyethylene Sheet by Electron-Beam-Induced graft Polymerization
Ryo Ishihara, Shoichiro Uchiyama, Hideaki Ikezawa, Shinsuke Yamada, Hideyuki Hirota, Daisuke Umeno and Kyoichi Saito (Japan)

Parylene-nanocoating on optical fibre devices for sensitive detection of aromatic compounds in aqueous solutions
Tao Wang, Roman Selyanchyn, Hidetaka Matsui and Seung-Woo Lee (Japan)

Preparation of durable and biocompatible poly(lactic acid) by addition of alkylated chalcone
Hiroshi Nakamura, Satoshi Osawa and Kana Momonoi (Japan)

Long period grating optical fibre sensor fabrication based on the polyelectrolyte alternate film deposition
Tao Wang, Sergiy Korposh, Roman Selyanchyn, Stephen James and Seung-Woo Lee (Japan)

Phenolic network polymer by combination of two different polymerizations
Chihiro Kato, Tomoki Ogoshi and Tada-aki Yamagishi (Japan)

Thursday, December 13 (afternoon)

S-6  Biomaterials and Health

Design of functional polyrotaxane-based intracellular imaging probe
Nanako Yokoyama, Ji-hun Seo, Atsushi Tamura, Yoshihiro Sasaki and Nobuhiko Yui (Japan)

Oligoethylene glycol-attached dendron lipid assemblies as a temperature-responsive nanocarrier
Yuji Hirai, Eiji Yuba, Atsushi Harada and Kenji Kono (Japan)

Improved stability of PICosomes (polyion complex vesicles) against environmental changes by introducing guanidinium moieties in polycation segment
Mao Hori, Yasutaka Anraku, Akihiro Kishimura and Kazunori Kataoka (Japan)

Trilayered polymeric micelle as a newly-developed macromolecular assembly that can incorporate hydrophilic compounds: the optimization of factors affecting its formation and gelation properties
Yusuke Uchida and Yoshihiko Murakami (Japan)

Fabrication of Ordered Arrays of Gold Nanoparticles Using Self-Assembled Nanostructure of Diblock Copolymer Micelles and Their Application to Biosensors
Tasuku Iwaizako, Shingo Hadano and Shigeru Watanabe (Japan)

Disulfide cross-linked polyplex micelles with regulated folding towards systemic gene delivery - Effect of plasmid DNA folding and cross-linking degree on gene expression
Anjaneyulu Dirisala, Kensuke Osada, Theofilus A. Tockary, Chen Qixian and Kazunori Kataoka (Japan)

Polyamidoamine Dendron Lipid Gene Vectors: Correlation between Molecular Structure and Performance
Kota Tsukamoto, Eiji Yuba, Atsushi Harada and Kenji Kono (Japan)

Design of PEGylated polyion complexes featuring single siRNA molecule - Effect of chain lengths of PEG-b-polycations on the complex structure and properties-
Hiroyuki Chaya, Sumiyo Watanabe, Hiroyasu Takemoto, Shigeto Fukushima, Kanjiro Miyata, Kensuke Osada, Nobuhiro Nishiyama and Kazunori Kataoka (Japan)

The effect of shape of antigen-loaded peptide nano-assemblies on their adsorption and internalization by cells
Tomonori Waku, Yuichi Kitagawa, Kazufumi Kawabata, Shigeru Kunugi and Naoki Tanaka (Japan)

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14P1S2-041a New phase transitions from cis-transoid helix to contracted helix or twist ribbon of poly(phenylacetylene)s induced by heat-treatment in solid phase
Asahi Motoshige, Yasuteru Mawatari, Yoshiaki Yoshida and Masayoshi Tabata (Japan)

14P1S2-042b Dissipative Superstructures of Cyanine J-Aggregates Emerged at Water/Ionic Liquid Interface
Masa-aki Morikawa and Nobuo Kimizuka (Japan)

14P1S2-043a Electron spin resonance analysis of poly(L-gultramic acid) containing an organic TEMPO radical
Toshihiro Hiejima and Junpei Kaneko (Japan)

14P1S2-044b Photosensitivity Mechanism and Properties of Polysiloxane
Koichi Dan, Mitsuhiro Suwa, Toru Okazawa and Hirokazu Iimori (Japan)

14P1S2-045a Behaviour of PVME/Water Mixtures during the phase separation
Marek Radecki and Lenka Hanykova (Czech Republic)

14P1S2-046b Development of PLLA-PDLA Stereocomplex by Molecular Design of Chain End Group and Inkjet System
Hiroharu Ajiro, Takami Akagi, Tran Han Thi, Tomoko Fujiwara and Mitsuru Akashi (Japan)

14P1S2-047a Nanotube Formation from Polymer Nanocapsules through the Unique One-Dimensional Fusion
Toshivuki Kida, Kenta Kondo, Tomoya Ohta and Mitsuru Akashi (Japan)

14P1S1-048b Concerted Redox Catalysis by Ferrocene Derivatives toward Active and Versatile Catalysis in Living Radical Polymerization
Kojiro Fujimura, Makoto Ouchi and Mitsuo Sawamoto (Japan)

14P1S1-049a Sequence-Controlled Functional Copolymers by Synchronized Tandem Living Radical Polymerization and In-Situ Monomer Transformation
Controlled radical polymerization by enzyme-mimetic catalysis using ferriprotoporphyrin complex
Kazuya Yamashita, Kazuya Yamamoto and Jun-ichi Kadokawa (Japan)

Sequence Regulated Radical Polymerization with Template Molecules
Yusuke Hibi, Makoto Ouchi and Mitsuo Sawamoto (Japan)

Precision Polymers Carrying Complementary Interaction Sites at Well-Defined Positions toward Novel Self-Assemblies
Sang-Ho Lee, Makoto Ouchi and Mitsuo Sawamoto (Japan)

Block Copolymer of TEMPO and Glycidyl Methacrylate Synthesized by Controlled Radical Polymerization and Charge Storage with the Grafted ITO Substrate
Katsuyuki Takahashi, Yuto Sasaki, Kazumasa Tsuji, Konstantine Korolev, Bryuzgin Evgeny, Alexander Navrotskiy, Ivan Novakov and Hiroyuki Nishide (Japan)

A Road Map to Living Cationic Polymerization of Various Styrene Derivatives: Differences in Controllability among Lewis Acid Catalyst
Ryohei Saitoh, Shota Shibutani, Arihiro Kanazawa, Shokyoku Kanaoka and Sadahito Aoshima (Japan)

Metal Salen Complexes and Initiators Containing N-H Bonds for Controlled Cationic Polymerization of Vinyl Ethers
Sensho Kigoshi, Arihiro Kanazawa, Shokyoku Kanaoka and Sadahito Aoshima (Japan)

Selective Acetal-Initiated Living Cationic Polymerization for Precision Synthesis of Graft Copolymers
Norifumi Yokoyama, Hiroko Shimomoto, Arihiro Kanazawa, Shokyoku Kanaoka and Sadahito Aoshima (Japan)

One-step Precision Synthesis of Block Copolymers and Star Polymers Based on Monomer-Selective Living Cationic Polymerization
Ryohei Kimura, Mayuka Yamada, Arihiro Kanazawa, Shokyoku Kanaoka and Sadahito Aoshima (Japan)

Precise synthesis of alternating copolymers by controlled cationic polymerization of aldehyde and vinyl ether: dual responsive polymer with thermosensitivity and selective acid degradability
Suzuka Matsumoto, Yasushi Ishido, Arihiro Kanazawa, Shokyoku Kanaoka and Sadahito Aoshima (Japan)

Synthesis of Water-Soluble Poly(substituted methylene)s with hydroxy and oxyethylene groups by Palladium-Mediated Polymerization of Diazocarbonyl Compounds
Hiroaki Shimomoto, Erika Itoh, Kohta Shimizu, Tomomichi Itoh, Eiji Ihara, Naohiro Hoshikawa, Akihiko Kiwai and Naoki Hasegawa (Japan)

Investigation of Catalyst-Transfer Condensation Polymerization of Aromatic Monomers Containing C-C double bond
Masataka Nojima, Yoshihiro Ohta and Tsutomu Yokozawa (Japan)

Synthesis of Well-Defined, Water-Soluble Hyperbranched Polyamides by Chain-Growth Condensation Polymerization of AB2 Monomer with N-tri(ethylene glycol) chain
Yoshihiro Ohta, Yusuke Kamijyo and Tsutomu Yokozawa (Japan)

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Enzymatic degradation of polyester films by cutinase-like enzyme from a yeast \textit{Pseudozyma antarctica}: a surface plasmon resonance analysis

Yukiko Shinozaki, Yoshihiro Kikkawa, Tokuma Uchida, Hiroshi Kitamoto, Nobuhiro Nishiyama and Kazunori Kataoka (Japan)

Preparation of antibody introduced micelle consist of well defined end-functionalized poly(ethylene oxide) - b - poly(aminoc acid)

Jooyeon Ahn, Yutaka Miura, Hirokuni Uchida, Horacio Cabral, Nobuhiro Nishiyama and Kazunori Kataoka (Japan)

Characterization and evaluation of the charge-conversional polyionic complex micelles incorporating monoclonal antibodies

شرف کیم, يان لی, یوتاکا میورا, هیونجین کیم, تاکهیکو ایشی, نوبویورو نیشی‌یاما و کازونوری کاتاهکا (ژاپن)

Cloning of a novel protein and its functional expression on enhancing saccharification of cellulose

فتوشی سومیشیما و تاکاشی یوشیدا (ژاپن)

Synthesis and potent biological activities of sulfated galactomannans

تگشی موسی، تاکاشی یوشیدا، تایسی کاناموتو و هیدهکی ناکاشیما (ژاپن)

Characterization of nanofiber-like polyplexes elongated by exclusion volume effect of multi-arm PEG installed to poly(L-lysine)

روتبا آونو، ایجی یوبا، آتسهیشی هارادا و کنچی کونو (ژاپن)

Synthesis and characterization of core-corona type nanosphere having thermoresponsive polymer with controlled chain length

تاكUYا ماتسوسیما، تاکا-اکی آسهو و اکیهیکو کیکوچی (ژاپن)

Intracellular environment-responsive stabilization of nanocapsules prepared from head-tail type polycations

روتبا ماتسوسیما، شینیچی آچیمورا، ایجی یوبا، آتسهیشی هارادا و کنچی کونو (ژاپن)
Selective packaging of plasmid DNA into toroid shaped polyplex micelles
Yanmin Li, Kensuke Osada, Qixian Chen, Theofilus A Tockary and Kazunori Kataoka (Japan)

Highly-stabilized pH-sensitive liposomes from hydrogen bond crosslinking for drug delivery
Yi-Ting Chaing and Chun-Liang Lo (Taiwan)

Assembly Structures and Energy Transfer property of Photosynthetic Antenna-Reaction Center Complexes in various Lipid Bilayers
Yuki Nakano, Ayumi Sumino, Tomoyasu Noji, Natsuko Watanabe, Masaharu Kondo, Takehisa Dewa and Mamoru Nango (Japan)

Evaluation of photo-induced electron-transfer activity of Photosystem I, II(PS I, II) derived from thermocynechoccus elongatus using peptide gemini surfactant Shuhei Koeda, Katsunari Umezaki, Shunsuke Sakai, Tomoyasu Noji, Takehisa Dewa, Toshihisa Mizuno, Toshiki Tanaka, Mamoru Nango, Kazunori Sugiyasu and Masayuki Takeuchi (Japan)

Creation of GFP nanofiber by the aid of pH-responsive polymer assembly Naoya Okiyama, Toshihisa Mizuno, Eriko Ohta, Jun-ichi Oku, Toshiki Tanaka, Takehisa Dewa, Kazunori Sugiyasu and Masayuki Takeuchi (Japan)

Synthesis and properties of phosphorylated chitin Kikuya Ogata, Tetsuya Furuike and Hiroshi Tamura (Japan)

Design of Novel Hybrid Hydrogels from Imogolite Nanotube and Hyaluronic Acid
Kyung-Lynne Park, Hideyuki Otsuka and Atsushi Takahara (Japan)

Polymer Modification on Cell Surface for Modulation of Cellular Function
Masafumi Takeo, Takeshi Mori, Takuro Niidome and Yoshiki Katayama (Japan)

Effects of UV Rays upon Molecular Weight of Spider Silk
Takashi Matsuhira and Shigeoashi Osaki (Japan)

Synthesis and characterants of PG-Surfactants, having oligo Asp as a peptide linker
Katsunari Umezaki, Toshihisa Mizuno, Shunsuke Sakai, Masaharu Kondo, Yasushi Yamamoto, Takehisa Dewa, Toshiki Tanaka, Atsushi Ikeda, Kazunori Sugiyasu and Masayuki Takeuchi (Japan)

Amphiphilic poly(amino acid) nanoparticles as a carrier and adjuvant for protein/peptide-based vaccines
Takami Akagi, Tomofumi Uto, Tomohide Tatsumi, Masanori Baba and Mitsuru Akashi (Japan)

Fabrication of 3D-Cell Chips by Layer-by-Layer technique
Akihiro Nishiguchi, Michiya Matsusaki and Mitsuru Akashi (Japan)

Room P2

- POSTER SESSIONS SCHEDULE (see Note 1)
  9:30 - 12:00 Mounting Posters
  12:30 - 13:15 Obligation time for Group “a” (see Note 2)
  13:15 - 14:00 Obligation time for Group “b” (see Note 2)
  17:30 - 18:00 Removing Posters

Notes:
1) There are TWO Poster Session Rooms: This is the program for Room P2.
2) For the assignment to Group “a” or “b”, refer to the last letter of the poster ID code.
  (example) 12P2S3-122b: Dec. 12, Poster Session Room P2, Selected Topic S3, Paper #122, Group “b”

Wednesday, December 12

S-3 Emergent Phenomena

Highly smooth, transparent and layered zirconium containing novel hybrid films showing unusual dynamic dewetting behavior
Ben Masheder, Chihiko Urata, Dalton Cheng and Atsushi Hozumi (Japan)

Analysis of High-dimensional Structures in Phenolic Polymers
Shirun Ho (Japan)
Oriented ultrathin films of poly(9,9-dioctylfluorenebithiophene) prepared by LS method and their FET mobility
Hiroko Iwatsuki, Kenjiro Azuma, Hisaaki Tanaka, Shin-ichi Kuroda, Shusaku Nagano and Takahiro Seki (Japan)

Multifarious Photocontrol of Molecular Orientation in Liquid Crystalline Random Copolymers Containing Two Mesogenic Groups
Yuki Nagashima, Syusaku Nagano and Shin-ichi Yusa (Japan)

Formation of network structure composed of pH-responsive telechelic polymer
Atsushi Nagae, Masamichi Inoue and Shin-ichi Yusa (Japan)

Photoalignment behavior of microphase separation in thin films of liquid crystalline azobenzene block copolymers evaluated by TEM observation
Shiuko Nakamura, Masami Sano, Shusaku Nagano and Takahiro Seki (Japan)

Selective preparation of cage-type oligomeric and ladder-like polymeric silsesquioxanes in acid-catalyzed condensation of 3-aminopropyltrialkoxyisilane
Yoshiro Kaneko, Miki Shoiriki and Tomonobu Mizumo (Japan)

Preparation of carboxylate group-containing ladder-like polysilsesquioxane with hexagonally stacked structure by sol-gel method
Hisaya Toyodome, Nobuo Iyi and Yoshiro Kaneko (Japan)

Development of Inorganic/Organic Hybrids with Three-Dimensional Structures Using Ordered Templates
Shunichi Matsumura, Satoshi Kajiyama, Tatsuya Nishimura and Takashi Kato (Japan)

Effect of Poly(vinylpyrrolidone) on Hydroxyapatite Mineralization in Simulated Body Fluids
Shogo Hashimoto, Shin-ichi Yusa and Mineo Hashizume (Japan)

Precise Control of Surface Physicochemical Properties of Electrospun Nonwoven Fiber Membranes for Water/Oil Separation
Di Tao, Takahiro Yan, Yu Hi Higaki and Atsushi Takahara (Japan)

Bio-inspired superhydrophobic surfaces based on hierarchically micro/nanostructured alumina gel films and surface-attachable molecules
Wei Ma, Yu Hi Higaki, Hideyuki Otsuka and Atsushi Takahara (Japan)

Characterization of Molecular Aggregation States and Surface Properties of Poly(fluorooctylethylacrylate/ethylene glycol) Block Copolymers
Shiki Nojima, Takamichi Shinohara, Tomoyuki Ohishi, Ryohei Ishige, Yu Hi Higaki, Hideyuki Otsuka and Atsushi Takahara (Japan)

Structure and Functions of Bicontinuous Cubic Liquid Crystals Containing Conjugative Naphthalene or Biphenyl Moieties
Tadashi Sugimoto, Yohei Miwa and Shoichi Kutsuzmizu (Japan)

Characterization of Surface Properties and Molecular Aggregation States of Poly(perfluoroalkyl acrylate) Brush Thin Films on Surface Nano-textured Substrate
Takamichi Shinohara, Ryoei Ishige, Yu Hi Higaki and Atsushi Takahara (Japan)

Multi-Responsive Adhesion of Rolling Water Droplet on a Biomimetic Superhydrophobic Structured Surface
Daisuke Ishii, Akihito Takahashi and Masatsugu Shimomura (Japan)

Liquid crystalline blue phases dispersed with gold nanoparticles
Kosuke Kaneko, Hiroki Higuchi and Hirotsugu Kikuchi (Japan)

Self-Assembled Fibers Bearing Radical Moieties
Hiroki Eimura, Masafumi Yoshio, Hiroki Tokoro, Yong Wu, Yuki Hirai, Yoshihide Tsunobuchi, Shin-ichi Ohkoshi and Takashi Kato (Japan)

Development of Stimuli-Responsive Photoluminescent Liquid-Crystalline Mixtures
Shogo Yamane and Takashi Kato (Japan)

Development of Liquid-Crystalline Electrolytes through Self-Assembly of Ionic Liquids
Junji Sakuda, Masafumi Yoshio, Takahiro Ichikawa, Satomi Taguchi, Hiroyuki Ohno and Takashi Kato (Japan)

Unidirectional translational motion of magnetic particles induced by alternating magnetic fields under earth's magnetism
Shinji Kawazu, Yasuhi Okumura, Hiroki Higuchi and Hirotsugu Kikuchi (Japan)

Chain Dimensions of a Free Linear Cationic Polymer and a Cationic Polymer Brush on a Silica Nanoparticle in Aqueous Sodium Chloride
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Tatsuya Ishikawa, Moriya Kikuchi, Motoyasu Kobayashi and Atsushi Takahara (Japan)

12P2S3-145a Multifunctional Topological Surface with Biomimetic Wrinkle Processing

Hiroshi Endo, Masahiro Tamura, Takayuki Iijima, Yoshiyuki Mochizuki, Tamami Tuji and Takeshi Kawai (Japan)

12P2S3-146b Target-induced stability change of DNA brush-protected gold nanoparticle dispersions

Naoki Kanayama, Masahiro Fujita, Tohru Takarada and Mizuo Maeda (Japan)

12P2S3-147a Synthesis of Chiral Dopants having Anthracene Moiety to Control Phase Transition Behavior of Chiral Liquid Crystals by External Stimuli

Hiroya Nishikawa, Hiroki Higuchi, Yasushi Okumura and Hirotsugu Kikuchi (Japan)

12P2S3-148b Pulsed laser processing of nano-porous polymer films based on superheating of Au nanoparticles and micro-phase separation of a block copolymer

Keita Muraoka, Tatsuya Shoji, Kazusi Yamada, Hiroyuki Sugimura, Noboru Kitamura, Shuichi Hashimoto and Yasuyuki Tsuboi (Japan)

12P2S3-149a Novel method of forming micro random pattern from polystyrene phase deposition

Yuji Kiyono (Japan)

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S-7 Sustainability and Healing

12P2S7-154b Synthesis and Materialization of Bio-based Polyamides from Itaconic Acid

Md Asif Ali, Seiji Tateyama, Akio Miyazato, Daisaku Kaneko and Tatsuo Kaneko (Japan)

12P2S7-155a Development of porous fibers produced from microbial polyester and highly-ordered structure analysis using synchrotron radiation

Chizuru Hongo, Hiroyuki Ichino, Toshihisa Tanaka, Kentaro Uesugi, Akihisa Takeuchi, Yoshio Suzuki, Masugu Sato, Takaaki Hikima, Masaki Takata and Tadahisa Iwata (Japan)

12P2S7-156b Soluble and high performance biopolymides derived from microbial 4-aminocinnamic acid

Xin Jin, Akio Miyazato, Seiji Tateyama and Tatsuo Kaneko (Japan)

12P2S7-157a Synthesis and Characterization of Copolymers Composed of L-lactic Acid and Side-Chain-Substituted Lactic Acids

Hironori Marubayashi, Tadahisa Iwata, Takaaki Hikima and Masaki Takata (Japan)

12P2S7-158b Recycable, High-Performance Aramid Polymers from Microbial Cinnamate Biochemicals

Seiji Tateyama, Katsuaki Yasaki, Daisaku Kaneko, Syunsuke Masuo, Takashi Ito, Naoki Takaya and Tatsuo Kaneko (Japan)

12P2S7-159a A New Bio-thermal Resistant and Transparent Non-aromatic Polyester Containing Betulin as Triterpene Diol Obtained from Bark of White Birch

Yasuteru Mawatari and Masayoshi Tabata (Japan)

12P2S7-160b Interaction between Chitinase and Polysaccharide Surfaces Analysed by Atomic Force Microscopy

Masato Fukuda, Yoshihiro Kikkawa, Masatoshi Kanesato, Ayumi Kashiwada, Kiyomi Matsuda, Masahisa Wada, Tadayuki Imanaka and Takeshi Tanaka (Japan)

12P2S7-161a Preparation and Reactions Organosilane Thin Film with Autonomously Exchangeable Dynamic Covalent Bonds

Rina Yoneyama, Keiichi Imato, Tomoya Sato, Tomoyuki Ohishi, Atsushi Takahara and Hideyuki Otsuka (Japan)

12P2S7-162b Fabrication of poly(vinyl alcohol) monolith via thermally impacted non-solvent induced phase separation

Xiaoxia Sun, Takashi Fujimoto and Hiroshi Uyama (Japan)

12P2S7-163a In-Situ Sensing of Main Chain Scission in Mechanochromic Polyurethanes under...
Uniaxial Elongation
Takeshi Kanehara, Keiichi Imato, Atsushi Irie, Masayoshi Ito, Hirofumi Yajima, Tomoyuki Ohishi, Atsushi Takahara and Hideyuki Otsuka (Japan)

Performance of wood-polypropylene composites with recycled polypropylene
Seong Ho Ahn and Dae Su Kim (Korea)

Microfluidics-Based, Controllable Preparation of Polysaccharide Composite Fibers
Kazuya Yuyama, Mineo Hashizume and Atsushi Shono (Japan)

Synthesis and properties of biodegradable superabsorbent hydrogels based on cellulose glutarate
Tosho Yoshimura and Rumiko Fujioka (Japan)

Mendable polymers networked by Diels-Alder reaction: Effect of chemical structure around the reversible bonds
Satsuki Shinohara, Nobuhiro Oya, Youichi Ishii and Naoko Yoshie (Japan)

Properties of thermo-responsive hydrogel prepared by microfibrillar collagen
Naoyuki Takahashi, Takuto Umemura, Takahisa Nakada, Eri Nasuno, Ken-ichi limura and Norihiro Kato (Japan)

PCL composite membranes containing EGCG-loaded calcium phosphate nanoparticles for bone tissue engineering
Young-Jin Kim and Min Sung Kim (Korea)

Preparation and Application of Porous Three-dimensional Scaffold Based on Poly(γ-glutamic acid)
Sung-Bin Park and Hiroshi Uyama (Japan)

Thursday, December 13

G-1  Polymer Synthesis and Reactions

Synthesis of Novel Main- and Side-Chain-Sequenced Polymers from Sequence-Regulated Oligomers
Takamasa Soejima, Kotaro Satoh and Masami Kamigaito (Japan)

Green Metal-Catalyzed Living Radical Polymerization via Ligand Decoration: Highly Active Ru Catalysts in Water and Robust Fe Catalysts for Functional Monomers
Keita Nishizawa, Makoto Ouchi and Mitsuo Sawamoto (Japan)

Effect of stereoregularity and chemical composition on phase transition of aqueous solutions of poly(N-ethylacrylamide-co- N-n-propylacrylamide)s
Akiko Ono, Hiroaki Yamamoto, Takeshi Mori, Yasushi Maeda, Miyuki Oshimura, Tomohiro Hirano and Koichi Ute (Japan)

Effect of lithium salts on the polymerization behaviors of N-n-propylmethacrylamide
Tadashi Segata, Miyuki Oshimura, Tomohiro Hirano and Koichi Ute (Japan)

Effect of lithium salts on radical polymerizations of vinyl monomers
Tatsuya Saito, Yoshitaka Kurano, Miyuki Oshimura, Tomohiro Hirano and Koichi Ute (Japan)

Aqueous RAFT polymerization of N-vinylimidazolium salts
Kakeru Takahashi, Kazuhiro Nakabayashi and Hideharu Mori (Japan)

Synthesis of epoxide-containing block copolymers by RAFT polymerization and selective modifications
Tatsuru Miyagi, Kazuhiro Nakabayashi and Hideharu Mori (Japan)

Radical copolymerization of N-substituted maleimide with 1-methylenebenzocycloalkene
Miki Hisano and Akikazu Matsumoto (Japan)

Regiospecific radical alternating copolymerization of N-substituted maleimide with conjugated diene monomers
Daisuke Yamamoto, Eriko Sato and Akikazu Matsumoto (Japan)

Synthesis of High Molecular Weight Acrylic Block Copolymers Considering Application to Dismantlable Adhesion
Keisuke Yamanishi, Tadashi Inui, Eriko Sato and Akikazu Matsumoto (Japan)

Influence of Enantiomer on Stereocontrolled Radical Polymerization of s-Cis Locked Methylene Dioxolanone
Miki Niwa and Hitoshi Tanaka (Japan)
Emulsifier-Free, Organotellurium-Mediated Living Radical Emulsion Polymerization (Emulsion TERP): Effect of Monomer Hydrophilicity
Yukia Kitayama, Kazuya Kishida and Masayoshi Okubo (Japan)

Aldol-type group-transfer polymerization of silyl vinyl ether using perfluorooalkanesulfonilimide
Takaya Moyori and Akinori Takasu (Japan)

Polymerization of Acrylic Monomers Having Acidic Proton with Lithium tert-Butylzincate
Hideki Miyamoto, Kenta Misumi, Miyuki Oshimura, Tomohiro Hirano and Koichi Ute (Japan)

Anionic cyclopolymerization of methacrylic anhydride with the aid of bulky aluminum Lewis acid
Naoko Moroi, Takehiro Kitaura and Tatsuki Kitayama (Japan)

Rare-Earth-Catalyzed Polymerization and Copolymerization of (E)-1,3-Pentadiene and 1,3-Butadiene
Kei Nishii, Masayoshi Nishiura and Zhaomin Hou (Japan)

Synthesis of ABA Triblock Copolymer Consisting of Poly(Vinyl Ether)s with a Urethane Group
Masatoshi Hayashi, Ayaka Kaneda, Takeshi Namikoshi, Miki Murata and Shinji Watanabe (Japan)

Living Cationic Polymerization and Copolymerization of Plant-Derived β-Methylstyrene
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