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- [1] ,
- [2] , Characterization
- [3] Optoelectronics, Display
- [4] Nanotech,
- [5] , Sensor,
- [6] Industrial polymers - development & applications
- [Poster] 2006

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A. Advanced Functional Polymers for Emerging Technologies

- Electronic and Photonic Polymers
- Polymers for Display and Sensor Applications
- Bio - related Polymers
- Polymers for Energy Storage
- Engineering and Hybridized Polymer Systems

B. Fundamental and General Polymers

- Polymer Syntheses and Reactions
- Polymer Physics and Characterization
- Specialty Polymers for Nanotechnology
- Environmental and Green Polymers
- Polymers for Industrial Applications
- Frontiers of Polymer Science and Technology
- Polymer Science and Technology for the New Era
- [Recent] Innovations of Polymer Science and Technology
- Current (New) Trends in Polymer Science and Technology

- New Waves in Polymer Science & Technology
- Advances in Functional Polymers

“Advanced

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Univ. of California (Berkeley) J.M.J. Frechet

Max Planck Institute for Polymer Research

Director [MPI

] G. Wegner (

R. Friend

), Kyushu Univ.

T. Kajiyama (Pacific Polymer Federation : PPF)가

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- : Y. Okamoto (,), H. Nishide (, , 2006 5)

- : Fosong Wang (,), Qi - Feng Zhou (, Jilin Univ.)

- : R. F. T Stepto (IUPAC Polymer Div. ,)

- : C. K. Ober (Cornell Univ., Director, IUPAC Polymer Div.) J.E. McGrath (Virginia Tech. Univ., Pacific Polymer Federation)

- : Dr. Majda Zigon(European Polymer Rederation(EPF) , Slovenia, National Institute of Chemistry)

- : Show - An Chen (National Tsing - Hua Univ., 2008 IUPAC Polymer Congress), Kan - Nan Chen (Tamkang Univ.,)

:

- A. - C. Albertsson (Sweden Royal Institute of Technology, Biomacromolecules Editor)

- M. Sawamoto (Kyoto Univ., J. Polymer Sci., Chem. Ed. Editor, PPF)

- V. Percec (Univ. of Pennsylvania, J. Am. Chem. Soc. Asso. Editor,)

- C. J. Kirkpatrick (J. Gutenberg Univ.,)

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- A. B. Holmes (A1, Univ. of Melbourne & Imperial College, UK;)
- L. R. Dalton (A1, Univ. of Washington)
- C. G. Willson (A2, Univ. of Texas, Molecular Imprints)
- A. S. Hoffman (A3, Univ. of Washington)
- S. Miyata (A4, NEDO,)
- T. P. Russel (A5, Univ. of Mass. at Amherst)
- M. Aizawa (A5,)
- T. Nishikubo (B1, Kanagawa Univ. , RadTech Japan)
- S. Penczek (B1, Polish Academy of Science, IUPAC)
- E. J. Amis (B2, National Institute of Standards and Technology)

Polymer Society of Korea 30 PSK30

International Union of Pure and

Applied Chemistry(IUPAC) Polymer Division (Stepto ,) 2006

9 16 IUPAC , IUPAC

"IUPAC International Symposium on Advanced Polymers for Emerging Technologies" 12 Second

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Session Invited Speaker

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10 Short Abstract A4 2 Long Abstract

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Wiley - VCH

Macromolecular Symposia

Macromolecular Research 30

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A1, A3, A5, B1 14 , IUPAC Polymer Division 3
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- : IUPAC Polymer Division

- : PPF Tisato Kajiyama

- : EPF Majda Zigon

- : H. Nishide()

- : Kan - Nan Chen() [2008 IUPAC Polymer Congress]

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(1) 10 11 , Jean M. J. Fréchet (University of California - Berkeley,)
Functional Polymers with Controlled Molecular Architecture : Design, Synthesis and Applications

(2) 10 11 , (, S. Penczek)
Magnetic Properties of Modified DNAs

(3) 10 12 , Tisato Kajiyama (Kyushu University,)
Activated Physical Properties at Air - Polymer Interface

(4) 10 13 , Gerhard Wegner (Max Planck Institute,)
Polymers and Nanosized Particles : A Happy Marriage?

IUPAC PSK30

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- Dr. Majda Zigon(European Polymer Rederation , Slovenia, National Institute of Chemistry) : B2, Structural and Molar
Mass Characterization of Commercial Aliphatic Hyperbranched Polyesters

- Ann - Christine Albertsson (Sweden, Royal Institute of Technology, Biomacromolecules Editor) : B3,
Renewable Green Polymers

- Dr. Brigitte Voit(, Leibniz Institute of Polymer Research, Director of Macromolecular Chemistry) : B1, Nanostructure
Formation in Thin Films of Block Copolymers Prepared by Controlled Radical Polymerization

가 1200 (1000),

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[IUPAC PSK30 - Session A1]

Polymers for Electronics and Photonics

A1 S. A. Jenekhe (Univ. of Washington)
 , plastic electronics optoelectronics 가 / 가
 OLED (i) blue OLEDs fluorene - acceptor copolymers, (ii) blue OLEDs *n*- oligomers,
 (iii) donor - acceptor가 EL polyfluorene copolymers, (iv) RGB OLEDs bipolar organic emitters
 phenoxazine OTFT . Donor 10 - methylphenothiazine 9 - methylcar -
 bazole 가 acceptor phenylquinoline 가 BPQ - MPT BPQ - MCZ .
 ITO/PEDOT/PVK/BPQ - MPT or BPQ - MCZ/LiF/Al non - planar phenothiazine
 planar carbazole 가 eximer exiplex
 yellow - orange 가 D - A
 OTFT p - channel hole mobility $8 \times 10^{-3} \text{ cm}^2 \cdot \text{V}^{-1} \cdot \text{s}^{-1}$ on/off current ratios 5×10^5 $5 \times$
 10^6 Univ. of Washington Dalton (Univ. of Washington)
 , 300 pm/V
 Photolithography RIE Kaino (Tohoku Univ.) FTTH 가
 hot embossing array 45
 가 1/5 가 ()가
 3 가 가
 OLED 3D photonic crystal 가 가
 AM - OLED , WOLED AM - OLED , OLED
 RGBW 16.7~66.7% , WOLED 1000 nit 50,000 20% 가 , 32 bit
 가 30 cd/A 가 , AM - OLED 10 cd/A AM - LCD
 가 S. A. Chen
 4.6 cd/A (0.16, 0.10)
 Ir 가 1.3% Ir complex
 A. B. Holmes
 Ir 가 (dibenzosilole)
 2.55 eV Ir , 3,6 - 가
 OTFT A. Persoons (K U Leuven) re -
 giorregular poly - 3 - alkylthiophene magnetic/magneto optical . SQUID 4.8 K 0.1T
 가 χ_T 6115 (emu) Kmol^{-1} (of monomer) . 48,900 μB μ_{eff} S
 25000 가
 grating 2D polarized laser
 submicron TiO_2 . Naval Research Lab PPV
 가 acceptor 가 ,
 가 , circular dichroism . helical encapsulation OPV acceptor
 unidirectional electron transfer
 A1 가 144 가
 가 , OLED/PLED 32 , OTFT 31 가 conducting polymer,
 NLO, alignment layer, low k, photocrosslinking, optical storage, organic memory, optical film, plastic substrate 가 .

[IUPAC PSK30 - Session A2] Smart Polymers for Sensors and Intelligent Systems

20 가 . nanobio 가 A2 , 가 , 가 , DNA clinical gene diagnosis , 가 IT , V. Percec K. Haupt . A2 , 가 C. Ober C. G. Willson 가 nano - imprint 가 A1 , smart polymer , symposium 가 workshop 가 .

[IUPAC PSK30 - Session A3] Biomedical Polymers

Biomaterials Session(A3) 10 11 13 3 14 (Session) 20 .
(219)
Washington Hoffman , biomaterials Twente Feijen Johannes Guten -
berg Kirkpatrick , , KAIST
Kataoka Utah Chen -
Plenary lecture Utah
, biomaterials 100 가 biomaterials 가 .
Hoffman 70 session
IUPAC - PSK30
session organizer .

[IUPAC PSK30 - Session A4] Polymer for Energy Conversion and Storage

A4 session 'Polymers for Energy Conversion and Storage' title energy
가 가 . , ,
energy storage가
. 21

fuel cell
Virginia Tech. James E. McGrath New Energy and Industrial Technology
Development Organization(NEDO) Seizo Miyata 가 fuel cell polymer electrolyte membrane
Seizo Miyata fuel cell polymer electrolyte
가 . Session fuel cell

12 () solar cell lithium secondary battery 가 , Waseda
Hiroyuki Nishide organic radical battery
membrane solar cell
100%

composite ,
membrane solid type membrane
solid type ,
가 가 가 ,
mechanism
87 가 12 () 12 30
가 가
A4 session fuel cell solar cell 가
cell direct methanol fuel cell (DMFC) 가 membrane
sulfone , 가 nanoparticle composite가
Solar cell dye - sensitized solar cell 가 , solar cell
nanocomposite polymer solar cell factor
가 , ethylene oxide
organic radical battery , supercapacitor, organic pho -
to voltaic cell energy storage 가
Energy PSK30 가

[IUPAC PSK30 - Session A5]

Polymer Nanomaterials and Nanotechnology

Polymer nanomaterials and nanotechnology
가 , , 7 A5 30 가 10
12 198 가 10 11 12 38 A5 가
11 12 13
11
confine template 가
Massachusetts Russell 12 3 University of
Pasteur Hadziioannou University of Louis
template
12 201
2 8 11 가 KAIST , top-down
pre - pattern dewetting supramolecular dendrimer
confinement 202 Aristotle University of Thessaloniki Anastasiadis
3 A5 5 10 . Anastasiadis
3
layer - by - layer X
13 A5 , 201
12 가 clay nanocomposite
KAIST epitaxy
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inorganic surface plasmon anti - reflection
11 12 198 가
가
가
가
clay 0 exfoliation 1 nanofibril
가
A5 X 3
가 가

[IUPAC PSK30 - Session B1] Polymer Syntheses and Reactions

9 (S. Penczek, Qi - Feng Zhou, M. Sawamoto, B. Voit, A. H. E. Müller, A. Deffieux, T. Nishikubo, M. Kakimoto, Zi - Chen Li), 2 (,) 4 (, , , 가
21 100 가
J. M. J. Frechet
J. E. McGrath, V. Percec, C. G. Willson
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[IUPAC PSK30 - Session B2] Polymer Physics, Properties, and Characterization

(Polymer Physics, Properties, and Characterization) session 13
29 89 29 9 , session 7
B2
가 NT, BT IT 가
가
Muthukumar (Univ. of Massachusetts, USA)
가 , Schmidt
(Univ. of Mainz, Germany)
Amis (NIST, USA) combinatorial high
throughput () 가
MD NEXAFS Schoenmakers (Univ. of Amsterdam, Nether -
lands) /
Zigon (Nat. Inst. Chem., Slovenia) 가 hyperbranched polyester
Ahn (,)
Sato (Osaka Univ.) 가
() X -

[IUPAC PSK30 - Session B3]

Environmental and Green Polymers

B3 environmental and green polymers session 4 8 가 .
10 22 , 34 . Royal Institute of Technology Albertsson
B3 session Albertsson renewable green polymer .
가 가 DNA - polyanion
(osmotic
distillation membrane) alginic acid - silica hydrogel
microwave radiation
PC/MMT
 , 가 ,
 ,
spectroscopy poly(hydroxyalkanoate) 2D correlation
(corynebacterium glutamicum) polyhydroxybutyrate
가 .

[IUPAC PSK30 - Session B4]

Polymer Engineering and Processing

B4 session	polymer engineering and processing	,	10		Tamkang
Chen 가	hybridization	.	가	/LC	
,	Kyoto Takigawa 가	biaxial deformation	.		
30 40					
,	2 Chinese Academy of Science He 가 filler	melt	가		
.	Kikutani 가 olefin copolymer	birefringence	,		
가	particle 가	Vaslier	Benard		
가	aluminum alloy	.			
4	Yamagata Koyama 가 가	design	,		
Bayer Material Science Dijkstra	가 poly (p - phenylene) polycarbonate		.		
가		,		Ougizawa	
가	birefringence	.	가	/	
10	가	,	Bayer Material Science Dijkstra 가		
spraying		Ito 가	micro/nano molded parts		
.	가 PP - MA	,	Paglicawan 가 가		
,	Tarbiat Modares Ebrahimi 가 TPU/PCL				
,	Liu 가 PP/ claydp	B. G. Kim 가 PP octadecane	frozen gels		
,	가 single end slashing,	.			
poly (N - isopropylacrylamide)					
B4	8 , 15 , 23		30		
session	.				

[IUPAC PSK30 - Session B5]

Industrial Polymers

B5 industrial polymers session
가 1) industrial outlook of polymeric materials and technology, 2) advances in polyolefin catalysts and materials, 3) recent progress in industrial polymers 3 subsession 24

29
11 industrial outlook of polymeric materials and technology subsession
thermoplastic olefins(TPO)
가 , engineering plastic
polycarbonate , display
SINOPEC Qiao nylon nanocomposites ,
ICI Baily , Maeda polyamide elastomer ter -
polymer Ube polyamide
advances in polyolefin catalysts and materials subsession 가
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homogeneous metallocene olefin ,
silacycloalkyl bridge ortho phenylene bridge constrained geometry metallocene
ethylene , dinuclear metallocene , Sumitomo
Miyatake phenoxytitanium - based high performance 가 .
ethylene oligomerization , Jordan
metallocene 가 polar vinyl monomer 가
postmetallocene . Olefin
UC Santa Barbara Bazan ethylene functionalized monomer
Institute of Chemistry, CAS Han polyolefin blend fluctuation induced crystallization polyolefin
controlled living radical polymerization polyethylene - b - poly -
acrylates block copolymer functionalized polyolefins . SK
Value - Added Polyolefin Products 가가
, , , 가 가 ,
Calgary Piers 가 가 100%
Recent progress in industrial polymers subssession polyimide GIST
, Styrene - Butadiene block non - isothermal , antifouling
coating applications 가 symposium B5 industrial polymer
session .