

## **GelSympo 2007 Polymer Gels: Fundamentals and Functional Control (7th International Gel Symposium)**

主催 ゲルシンポジウム 2007 組織委員会

共催 高分子学会高分子ゲル研究会

日時 8月6日(月)～8日(水)

会場 東京大学本郷キャンパス工学部2号館(東京都文京区本郷7-3-1)

会場案内はHPを参照下さい。

プログラム

### **[Monday, August 6]**

#### **9:50-10:00**

Opening Remarks R. Yoshida (Chair)

10:00-11:40

- 1) "Temperature-responsive biointerfaces for cell sheet tissue engineering"  
T. Okano (Tokyo Women's Medical University, Japan)
- 2) "Responsive properties of smart poly(amino acid) based gels"  
T. Gyenes and M. Zrinyi (Budapest University of Technology and Economics, Hungary)
- 3) "Recent results on a hydrogel-enzyme oscillator and on microfabricated hydrogel constructs"  
R.A. Siegel (University of Minnesota, USA)
- 4) "Design of self-oscillating gel for biomimetic materials"  
R. Yoshida (The University of Tokyo, Japan)

#### **13:00-14:40**

- 5) "Nanocomposite hydrogels as intelligent biomaterials"  
J.Z. Hilt (University of Kentucky, USA)
- 6) "Photoresponsive properties of spirobenzopyran functionalized polymer gels"  
A. Szilagy, K. Sumaru, S. Sugiura, T. Takagi, T. Shinbo, M. Zrinyi and T. Kanamori (National Institute of Advanced Industrial Science and Technology, Japan, Budapest University of Technology and Economics, Hungary)
- 7) "Autonomous microfluidics enabled by stimuli-responsive hydrogels"  
H. Jiang (University of Wisconsin-Madison, USA)
- 8) "Stretching induced director-switching of liquid crystal elastomers"  
K. Urayama, R. Mashita, T. Takigawa (Kyoto University, Japan)

#### **15:00-16:40**

- 9) "Solvent controlled release from hydrogels under mechanical stresses"  
T. Budtova (Ecole des Mines de Paris, France)
- 10) "Slide-ring gels with freely movable cross-links"

K. Ito (The University of Tokyo, Japan)

11) “Twenty years of pure and applied research on chitosans in Trondheim”

O. Smidsroed (Norwegian University of Science and Technology, Norway)

12) “Sol-gel transition of gelation hydrogels: dynamic light scattering and rheological studies”

M. Shibayama (The University of Tokyo, Japan)

**17:00-19:00**

Poster session (全 55 件)

**[Tuesday, August 7]**

**9:30-10:40**

13) “Multimolecular-assembly of smart block copolymers as nanocarriers for gene and drug delivery”

K. Kataoka (The University of Tokyo, Japan)

14) “Design of biodegradable temperature-responsive block copolymers consisting of polydepsipeptide and PEG: the effect of amino acid and the sequence on their sol-gel transition”

Y. Oya, H. Yamamoto, K. Nagahama and T. Ouchi (Kansai University, Japan)

15) “Lipophilic polyelectrolyte gels as super-absorbent polymers for organic solvents”

K. Sada, T. Ono, T. Sugimoto and S. Shinkai (Kyushu University, Japan)

**11:00-12:10**

16) “Biological applications of colloidal hydrogels”

L.A. Lyon (Georgia Institute of Technology, USA)

17) “Poly-HEMA/organic salt complex gels”

H. Kawaguchi (Keio University, Japan)

18) “Dissipative drying patterns of thermo-sensitive gels”

T. Okubo, E. Ito, A. Tsuchida and E. Kokufuta (Yamagata University, Japan)

**13:30-15:10**

19) “Thermosensitive core-shell microgels as carriers for metallic nanoparticles”

M. Ballauff (University of Bayreuth, Germany)

20) “Core-shell type nanogel as a new bionanoreactor”

Y. Nagasaki (University of Tsukuba, Japan)

21) “Spontaneous forming hydrogels composed of phospholipid polymers for biomedical application”

K. Ishihara (The University of Tokyo, Japan)

22) “Polyelectrolyte complexes as a basis for jellification of polysaccharide solutions”

Y. Shchipunov and I. Postnova (Russian Academy of Sciences, Russia)

**15:30-17:50**

23) “Nanogel engineering and biomedical application”

K. Akiyoshi (Tokyo Medical and Dental University, Japan)

24) “Anisotropic gelation induced by rod-like polyelectrolyte”

H. Furukawa, Y. Shigekusa, W. Yang, Y. Osada and J.P. Gong (Hokkaido University, Japan)

25) “Self assembling triblock copolymer gels for materials processing and tissue engineering applications”

K.R. Shull (Northwestern University, USA)

26) “Controlling coupling reaction of EDC and NHS for preparation of collagen gel”

K. Nam, T. Kimura, A. Kishida (Tokyo Medical and Dental University, Japan)

27) “A history of "smart" gels”

A.S. Hoffman (University of Washington, USA)

**18:00-20:00**

Banquet

**[Wednesday, August 8]**

**9:30-10:40**

28) “Electro responsive gel using ionic liquids”

M. Doi (The University of Tokyo, Japan)

29) “Tough gel with low friction-a candidate as artificial cartilage”

J.P. Gong (Hokkaido University, Japan)

30) “Characteristic surface properties derived from the organic/inorganic network in nanocomposite gels”

K. Haraguchi (Kawamura Institute of Chemical Research, Japan)

**11:00-11:50**

31) “pH-responsive nanogels and hydrogels”

P. Stayton (University of Washington, USA)

32) “Smart bioconjugated hydrogels that respond to target biomolecules”

T. Miyata, K. Ogawa, C. Ohba, M. Jige and T. Urugami (Kansai University, Japan)

**11:50**

Closing Remarks T. Miyata (Vice Chair)

**ミキサー** : 8月5日 (日) 18:00~20:00 (予定)

**バンケット** : 8月7日 (火) 18:00~20:00

**エクスカーション** : 東京観光 (国会議事堂、皇居、浅草、隅田川屋形船) ; 8月8日 (水)

13:00~21:00 ; 参加費 15,000 円

**参加登録費** (5月31以降) : 企業 45,000 円、大学・官公庁 35,000 円、学生 18,000 円

**参加申込み方法** : ホームページから web 登録

問い合わせ先 ゲルシンポ 2007 事務局（〒113-8656 東京都文京区本郷 7-3-1 東京大学大学院工学系研究科マテリアル工学専攻バイオ材料システム工学研究室内）

E-mail: [gelsympo@cross.t.u-tokyo.ac.jp](mailto:gelsympo@cross.t.u-tokyo.ac.jp)

ホームページ: <http://cross.t.u-tokyo.ac.jp/gelsympo2007/index.html>