

# The 11th Chromatography Symposium

## Program

Thursday, May 20, 2004

10:30 Opening

10:40–12:00

### **Symposium I**

- L-1 Application of membrane columns for the separation of glycosylated polypeptides  
Tomoyuki Ogata\*, Yoshiyuki Watabe, Nobuo Tanaka, Hiroyoshi Minakuchi, Kazuki Nakanishi, Ken Hosoya
- L-2 Preparation of high performance, uniformly sized separation media through porous silica membrane emulsification process  
Mitsuko Bendo\*, Hiroyoshi Minakuchi, Kazuki Nakanishi, Nobuo Tanaka, Ken Hosoya
- L-3 Preparation and evaluation of column efficiency of monolithic silica capillary columns modified with  $\beta$ -cyclodextrin derivatives  
Tohru Ikegami\*, Yukiko Miyaji, Wataru Kajiwara, Hiroshi Fujita, Ken Hosoya, Nobuo Tanaka
- L-4 Construction of gradient capillary electrochromatograph and its application for peptides separation  
Rie Nakashima, Shinya Kitagawa\*, Tatsunari Yoshida, Takao Tsuda

12:00–13:30 Lunch Break

13:30–15:00 Poster Session

15:00–15:10 Break

15:10–16:30

### **Lecture Session**

- L-5 The retention behavior of reversed-phase HPLC columns when used under 100% aqueous mobile phase conditions (4)  
Naoki Fujita, Toshiyuki Enami, Norikazu Nagae\*
- L-6 Sample injection technique for HPLC with minimized carryover  
Yuki Togashi\*, Masashi Mita, Tsuneaki Kaneko, Osamu Shirota
- L-7 Moment analysis of mass transfer kinetics in C<sub>18</sub>-silica monolithic columns  
Kanji Miyame\*, Alberto Cavazzini, Fabrice Gritti, Marianna Klel, Georges Guiochon
- L-8 Molecular modeling as a probe for studying mobile phase properties on reversed phase liquid chromatography  
Fumiko Yamamoto

16:30–16:40 Break

16:40–17:40

### **Lecture Session**

- L-9 Development of a parallel HPLC system using monolithic silica capillary columns connected with chips  
Daisuke Tokuda\*, Tohru Ikegami, Ken Hosoya, Yukihiko Shintani, Masahiro Furuno, Norio Ishizuka, Hiroyoshi Minakuchi, Kazuki Nakanishi, Nobuo Tanaka
- L-10 Determination of D-proline in mice and the study on the origins of the D-amino acid  
Kenji Hamase\*, Sayaka Takagi, Akiko Morikawa, Minako Nakata, Ryuichi Konno, Kiyoshi Zaitsu
- L-11 Polymer-coated fiber-packed capillary column in gas chromatography  
Yoshihiro Saito\*, Mitsuhiro Ogawa, Motohiro Imaizumi, Hiroo Wada, Kiyokatsu Jinno

**Friday, May 21, 2004**

9:50–10:50

**Symposium II**

- L-12 Nanoballs: Application for microchip electrophoresis

Mari Tabuchi\*, Chie Kuwahara, Yukio Nagasaki, Kenichi Yosikawa, Kazunori Kataoka, Yoshinobu Baba

L-13 withdrawn

- L-14 Novel sample injection methods for microchip electrophoresis

Mari Tabuchi\*, Yoshinobu Baba

- L-15 High quality proteome analysis

Mari Tabuchi\*, Yasuhiro Kuramitsu, Kazuyuki Nakamura, Yoshinobu Baba

10:50–11:00 Break

11:00–12:00

**Lecture Session**

- L-16 High sensitivity analysis of trace metal ions using sweeping and its applications in capillary electrophoresis

Kentaro Isso\*, Shigeru Terabe

- L-17 Novel on-line preparation system for LC-MS: Powerful tool for characterization of ppm level impurities under the nonvolatile mobile phase condition

Masahiko Okamoto\*, Kazuko Yamashita, Kiyoshi Nakai

- L-18 High speed analysis of drugs in plasma by automated sample pretreatment LC/MS system

Keiko Yamabe\*, Masatoshi Takahashi, Shin-ichi Kawano, Hirohisa Mikami

12:00–13:30 Lunch Break

13:30–14:50

**Symposium III**

- S-1 Biomolecules meet MEMS/NEMS : molecular handling/measurement and conveyer base on biomotors

Hiroyuki Fujita

- S-2 Nano/micro flow devices and systems for chemical/bio analysis

Shuichi Shoji\*, Hironobu Sato, Masaki Kanai, Jeung Sang Go

14:50–15:10 Break

15:10–16:25

**Symposium IV**

*Special Session in Honor of Prof. Terabe, 2004 ACS Chromatography Award recipient*

Introductory remark (Koji Otsuka)

- S-3 Miniaturization in liquid phase separation techniques: Proposed from Japan to the world

Kiyokatsu Jinno

- S-4 New separation technologies: Created by nanotechnology

Yoshinobu Baba

- S-5 Follow Terabe, a world leading scientist

Takehiko Kitamori

Remark (Shigeru Terabe)

16:25–16:40 Break

16:40–17:20

**Symposium V**

- S-6 Chiral amplification and chiral sensing by helical polymers  
Eiji Yashima

17:45– Reception

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**Poster Session**

(Thursday, May 20, 2004, 13:30–15:00)

- P-1 The retention behavior of polar stationary phases in the hydrophilic interaction chromatography (HILIC) mode  
Norikazu Nagae\*, Toshiyuki Enami
- P-2 Rapid separation on monolithic capillary columns in LC  
Atsushi Suzuki, Xiong Li, Lee Wah Lim, Toyohide Takeuchi\*
- P-3 Analysis of pharmaceuticals by high-performance liquid chromatography with chemiluminescence detection using ruthenium complex  
Wang Wei\*, Yuu Shibano, Satoru Asami, Takashi Suzuki, Mizue Makimura, Kazuo Uchikura
- P-4 The development of drug metabolic evaluation by temperature-responsive chromatography  
Midori Matsuyama\*, Yuji Okada, Chikako Sakamoto, Hideko Kanazawa, Akihiko Kikuchi, Teruo Okano
- P-6 Regeneration of free oligosaccharides from their reductively aminated derivatives  
Shigeo Suzuki\*, Masahiro Yodoshi, Susumu Honda
- P-7 High speed analysis of amino acids by the post-column ninhydrin method using new ion-exchange resin  
Norimasa Minamoto\*, Yoko Inoue, Yutaka Murayama, Masaaki Yoshida, Masahito Ito
- P-8 LS/MS analysis of DNA damages caused by aldehydes  
Yukihiro Esaka\*, Hiroya Murakami, Masashi Goto, Magoichi Sako, Kenji Kano
- P-9 Application of measurement of phenolic compounds to river waters by micellar electrokinetic chromatography with on-line preconcentration  
Sahori Takeda\*, Yoko Hattori, Nami Adachi, Masayuki Matsubara, Kenji Chayama, Keiichi Fukushi, Shin-ichi Wakida
- P-10 Study on high sensitivity analysis of nonylphenols by capillary electrophoresis  
Chika Uchiya, Kentaro Issoo\*, Shigeru Terabe
- P-11 Preparation of functionalized microspheres using electrostatic interactions and their application for capillary electrophoresis. 2  
Yukihiro Okamoto, Fumihiko Kitagawa, Koji Otsuka
- P-12 Preparation of newly functionalized capillaries for CE by modifying the inside wall. 5  
Keisuke Inoue\*, Masaya Kawase, Yukihiro Okamoto, Fumihiko Kitagawa, Koji Otsuka
- P-13 Capillary electrochromatography using ion exchange resin  
Miki Fujiwara\*, Yukihiro Okamoto, Fumihiko Kitagawa, Koji Otsuka
- P-14 Developing a manufacturing process of micro chemical chips those are made of plastic  
Mituru Saito\*, Kenji Obara, Yoshiyuki Ikegami
- P-15 The development of temperature-responsive microchip  
Genki iizuka\*, Yuji Okada, Chikako Sakamoto, Hideko Kanazawa, Akihiko Kikuchi, Teruo Okano
- P-16 Studies on the separation profile of proteins in microchip isoelectric focusing. 5  
Shiori Aizawa\*, Yukihiro Okamoto, Fumihiko Kitagawa, Koji Otsuka
- P-17 Isoelectric focusing by microfabricated free flow electrophoresis module: Separation behavior of proteins  
Hidesaburo Kobayashi\*, Noriyuki Aizawa, Nobuyoshi Tajima, Etsuo Shinohara