

Symposium 5 — 7th Asia Pacific Intl Conf on Microscale Separation and Analysis

Monday, 17 December 2007

Technical Session	Session 1		
Date/Time	Monday, 17 December 2007 / 11:00 – 12:30 hrs		
Venue	Room 306		
Chair	Andreas Manz		
Sym5:01	11:00 – 11:30	Microfluidics for Chemistry and Systems Biology	5:123
Keynote		<i>Andreas Manz</i>	
Sym5:02	11:30 – 11:45	Capillary Electrophoretic Enantioseparation of Basic Drugs with Cyclodextrins in Smaller Internal Diameter Capillaries: Optimization, Sensitivity Enhancement and Applications	5-124
Invited		<i>N. L. Deñola, N. S. Quiming, Y. Saito and K. Jinno</i>	
Sym5:03	11:45 – 12:00	Immunoaffinity Capillary Electrophoresis for the Identification and Characterization of Toxic Biomarkers	5:124
Invited		<i>Norberto A. Guzman</i>	
Sym5:04	12:00 – 12:15	Microfluidics and its Biomedical Application	5:125
Invited		<i>Bingcheng Lin and Jianhua Qin</i>	
Sym5:05	12:15 – 12:30	Contactless Conductivity Detection for Microseparation Techniques	5:125
Invited		<i>P. C. Hauser, W. S. Law, S. F. Y. Li, A. Schuchert-Shi, X. Y. Gong and P. Kubão</i>	

Lunch Break	12:30 – 14:00 hrs
-------------	-------------------

Technical Session	Session 2		
Date/Time	Monday, 17 December 2007 / 14:00 – 15:30 hrs		
Venue	Room 306		
Chair	Joerg Kutter		
Sym5:06	14:00 – 14:15	Electrophoretic and Chromatographic Separations on TOPAS-Based Capillaries and Microchips	5:125
Invited		<i>J. P. Kutter, Ó. Gústafsson and K. B. Mogensen</i>	
Sym5:07	14:15 – 14:30	Enantioseparation of Ephedrine and Norephedrine by MEEKC: Influence of the Microemulsion Composition on the Chromatographic Figure of Merit	5:126
		<i>Jirasak Threeprom and Kritsadi Phatthiyaphaibun</i>	
Sym5:08	14:30 – 14:45	An Improved Electrokinetic Microfluidic T-Mixer Using Fabricated Electrodes	5:126
		<i>D. G. Yan, C. Yang, Y. C. Lam and X. Y. Huang</i>	

Technical Program

Sym5:09	14:45 – 15:00	Analysis of Primaquine-Related Impurity by Capillary Electrophoresis <i>Abdalla A. Elbashir, Bahrudin Saad, Abdussalam Salhin Mohamed Ali and Muhammad Idiris Saleh</i>	5:126
Sym5:10	15:00 – 15:15	Development of Novel Capillary Electrophoresis-Mass Spectrometry Methods for the Analyses of Cytokinins <i>Liya Ge, Jean Wan Hong Yong and Swee Ngim Tan</i>	5:127
Sym5:11	15:15 – 15:30	Biological Profiling Using CE/MS Technology: The Path to Better Diagnostics <i>Matthias Pelzing, Oleg A. Mayboroda, Andre Deelder and Christian Neusuess</i>	5:127

Coffee Break	15:30 – 16:00 hrs
--------------	-------------------

Tuesday, 18 December 2007

Technical Session	Session 3
Date/Time	Tuesday, 18 December 2007 / 11:00 – 12:15 hrs
Venue	Room 306
Chair	Koji Otsuka

Sym5:12	11:00 – 11:30	Post-Blast Identification of Improvised Explosives by Capillary Electrophoresis and Ion Chromatography <i>Paul R. Haddad, Greg W. Dicoski, Emily F. Hilder, Michael C. Breadmore, Robert A. Shellie, Rosanne M. Guijt, Joseph P. Hutchinson, Cameron A. Johns and Eadaoin Tyrrell</i>	5:127
Keynote			
Sym5:13	11:30 – 11:45	Development of New Separation Fields for Microscale Electrophoretic Analyses <i>K. Nagai, K. Kubota, F. Kitagawa and K. Otsuka</i>	5:128
Invited			
Sym5:14	11:45 – 12:00	Microfluidic Chip — Capillary Electrophoresis for Biomedical and Environmental Analysis <i>Y. S. Fung</i>	5:128
Invited			
Sym5:15	12:00 – 12:15	Microscale Non-Gel Based 2-Dimensional Protein Fractionation by pI & MW <i>Myeong Hee Moon</i>	5:128
Invited			

Lunch Break	12:15 – 14:00 hrs
-------------	-------------------

Technical Session	Session 4
Date/Time	Tuesday, 18 December 2007 / 14:00 – 15:30 hrs
Venue	Room 306
Chair	Ching-Er Lin

Sym5:16	14:00 – 14:30	Micro to Extended-Nano Fluidic Systems on Chip for Chemistry and Bio-Technology <i>Takehiko Kitamori</i>	5:129
Keynote			
Sym5:17	14:30 – 14:45	Enantioseparations and Dynamic Capillary Electrophoresis of Some Chiral Compounds Using Sulfated Cyclodextrins as Chiral Selectors <i>Wei-Ssu Liao, Chia-Ming Kuo, Chih-Yu Chen, Chen-Hsing Lin and Ching-Erh Lin</i>	5:130
Invited			

Technical Program

Sym5:18	14:45 – 15:00	Micellar Electrokinetic Capillary Chromatographic Determination of Thorium, Iron, Copper and Nickel in Ore Samples by Precolumn Derivatization Using bis (salicylaldehyde)ethylenediimine as Derivatizing Reagent <i>M. Aslam, M. Y. Khuhawar and R. Arain</i>	5:130
Sym5:19	15:00 – 15:15	Characterization of Phenolic Compounds of the Plants of the Family of <i>Solanaceae</i> <i>K. Helmja, M. Vaher, T. Püssa and M. Kaljurand</i>	5:130
Sym5:20	15:15 – 15:30	Moving Chelation Boundary: Model, Theory and its Controllable Metal Ionic Stacking Efficiency in Capillary Electrophoresis <i>L. Y. Fan, X. J. Luo, W. Zhang, C. X. Cao, P. Zhou and Z. X. Deng</i>	5:131

Coffee Break	15:30 – 16:00 hrs
--------------	-------------------

Wednesday, 19 December 2007

Technical Session	Poster Session		
Date/Time	Wednesday, 19 December 2007 / 11:00 – 12:30 hrs		
Venue	Gallery		
Sym5:32	11:00 – 12:30	Two-Dimensional Capillary Electrophoresis with a Portable Auto Sampler for the Analysis of Proteins and Peptides in Gastric Fluids <i>Lijun Yu, Yiling, Kiong and Sam Fong Yau Li</i>	5:136
Sym5:33	11:00 – 12:30	Sensitive and Fast Analysis of Environmental Nitroaromatics and Nitramines by Micellar and Microemulsion Electrokinetic Chromatography <i>Y. Xu, Z. J. Jiang and S. F. Y. Li</i>	5:136
Sym5:34	11:00 – 12:30	Method Development for Enantiomeric Analysis of Methotrexate, Leucovorin and their Metabolites by Capillary Electrophoresis <i>J. Tok, Q. H. Hee, S. F. Y. Li and E. W. Y. Chan</i>	5:136
Sym5:35	11:00 – 12:30	Non-SELEX of p21-Activated Kinase for Aptamer Selection <i>J. Tok, J. Lai, S. F. Y. Li and T. Leung</i>	5:136
Sym5:36	11:00 – 12:30	Preconcentration and Separation of Toxic Alkaloids in Herbal Medicines by Non-Aqueous Capillary Electrophoresis (NACE) <i>Z. J. Jiang, L. J. Yu and S. F. Y. Li</i>	5:137
Sym5:37	11:00 – 12:30	Extraction of Biomolecules Using Ionic Liquid Solubilized DNA <i>E. T. T. Tay, H. F. Lau and S. F. Y. Li</i>	5:137
Sym5:38	11:00 – 12:30	Simultaneous Extraction of Basic and Acidic Drugs: A Novel Electro-Extraction Approach <i>J. Lee, C. Basheer, S. Pedersen-Bjergaard, K. E. Rasmussen and H. K. Lee</i>	5:137
Sym5:39	11:00 – 12:30	Functionalized Carbon Nanotubes as Sorbents for the Analysis of Aromatic Amines in Water Samples <i>Guihua, Fang and Sam Fong Yau, Li</i>	5:138
Sym5:40	11:00 – 12:30	Selective Detection of Toxic Metals in Water Sources Via the Use of Task Specific Ionic Liquids in Capillary Electrophoresis <i>Hiu Fung Lau and Sam Fong Yau Li</i>	5:138

Technical Program

Sym5:41	11:00 – 12:30	Capillary Electrophoresis with Capacitively Coupled Contactless Conductivity Detection for Low Molecular Weight Organic Acids in Different Samples <i>Wai Siang Law, Jian Hong Zhao, Peter C. Hauser and Sam Fong Yau Li</i>	5:138
Sym5:42	11:00 – 12:30	Analysis of Oseltamivir Using Micellar Electrokinetic Chromatography in Tamiflu® Capsules <i>F. Jabbaribar, A. R. Mortazavi, R. Jalali-Milani and A. Jouyban</i>	5:138
Sym5:43	11:00 – 12:30	Dual-Electrode Detection of Amino Acids for Microfluidic Chip <i>Wen-Peng Guo and Ying-Sing Fung</i>	5:139
Sym5:44	11:00 – 12:30	On Chip Solid Phase Extraction Coupled with an Amperometric Detector for the Monitoring of Trace Metals <i>Awadh O. AlSuhaimi</i>	5:139
Sym5:45	11:00 – 12:30	Immunoanalytical Applications of Capillary Force Driven Self-Washing Microfluidic Device <i>J. W. Hong, K. H. Chung, D. S. Lee and H. C. Yoon</i>	5:139
Sym5:46	11:00 – 12:30	Determination of Amphetamines in Urine by Liquid-Liquid Extraction with Simultaneous CE-EC and CE-ECL Detection <i>Jin-Ying Sun and Tian-Yan You</i>	5:140
Sym5:47	11:00 – 12:30	Low-Cost Lab-on-a-Chip Capillary Electrophoresis System Based on Polymer Chips and Electrical Detection <i>H. Mühlberger, T. Clemens, H. Demattio, C. Gärtner, R. Klemm, M. Klotz, R. Körber, G. Krieg and W. Hoffmann</i>	5:140
Sym5:48	11:00 – 12:30	Microfluidic Chip-Capillary Electrophoresis for Quality Assessment of a Complex Herbal Preparation <i>Z. Nie and Y. S. Fung</i>	5:141
Sym5:49	11:00 – 12:30	Microfluidic Chip-Capillary Electrophoresis for 2-D Separation of Proteins <i>R. G. Wu, Y. S. Fung and W. S. B. Yeung</i>	5:141
Sym5:50	11:00 – 12:30	Quantitation of Mitochondria Separated by Capillary Electrophoresis <i>W. F. Zhao, W. S. O and Y. S. Fung</i>	5:141
Sym5:51	11:00 – 12:30	Microchip Electrophoresis — Mass Spectrometry on Polymer Microfluidic Device Directly Integrated with a Nano ESI Tip <i>F. Kitagawa, T. Suzuki, H. Shinohara, J. Mizuno, S. Shoji and K. Otsuka</i>	5:141
Sym5:52	11:00 – 12:30	Electrophoretic Analysis on Poly(Methyl Methacrylate) Microchip Modified with Ionic Polymers <i>K. Kubota, F. Kitagawa and K. Otsuka</i>	5:142
Sym5:53	11:00 – 12:30	The Use of Magnetic Fluid in Capillary Electrophoresis for High Performance Analysis <i>K. Nagai, F. Kitagawa and K. Otsuka</i>	5:142
Sym5:54	11:00 – 12:30	Qualitative and Quantitative Determination of Nine Active Components in Radix Hedysari and Radix Astragali Using Capillary High Performance Liquid Chromatography Coupled with Diode Array Detection and Mass Spectrometry <i>J. Zhao, Q. T. Yu, Y. J. Zhang and P. Li</i>	5:143
Sym5:55	11:00 – 12:30	DNA Repair and PCR Amplification from Damaged DNA Templates <i>Jian Tie and Shigemi Oshida</i>	5:143

Technical Program

Sym5:56	11:00 – 12:30	Enhanced Sensitivity and Selectivity in the Determination of Metals Using U-Shaped Cell Detection, Ethylenediaminetetraacetic Acid and Vancomycin-Partial Filling Modes <i>Kritsadi Phatthiyaphaibun and Jirasak Threeprom</i>	5:143
Sym5:57	11:00 – 12:30	Capillary Electropherograms for Restriction Fragment Length Polymorphism of <i>Helicobacter Pylori</i> <i>Ming-Jong Bair, Ming-Feng Huang, Chiu-Lin Chen, Cheng-Kang Chiang and Huan-Tsung Chang</i>	5:144
Sym5:58	11:00 – 12:30	Electrohydrodynamic Generation and Manipulation of Aqueous Two-Phase Droplets in Microfluidic System <i>Y. H. Choi, Y. S. Song and D. H. Kim</i>	5:144
Sym5:59	11:00 – 12:30	Capillary Electrophoresis for the Determination of Trace Metals in Milk <i>K. L. Sze and Y. S. Fung</i>	5:144
Sym5:60	11:00 – 12:30	Quantum Dots For Detection of Organophosphorus Pesticides <i>Qidan Chen and Yingsing Fung</i>	5:145
Sym5:61	11:00 – 12:30	Separation and Determination of Carbonyls by Gradient Elution Micellar Electrokinetic Capillary Chromatography <i>King-Yee Chan, Hui Sun and Ying-Sing Fung</i>	5:145
Sym5:62	11:00 – 12:30	Separation of Functional Nanoparticles Using Capillary Electrophoresis <i>C. Bor Fuh, G. R. Fu and H. Y. Tsai</i>	5:145
Sym5:63	11:00 – 12:30	Thermooptical Detection in Microchips: From Macro to Micro Scale with Superior Analytical Parameters <i>A. Smirnova, M. A. Proskurnin, A. Hibara and T. Kitamori</i>	5:146
Sym5:64	11:00 – 12:30	Chaotropic Salts: Novel Modifiers in the Capillary Electrophoretic Analysis of Benzodiazepines <i>Hsiu-Li Su, Min-Tsu Lan and You-Zung Hsieh</i>	5:146
Sym5:65	11:00 – 12:30	Sample Stacking for the Analysis of Penicillins by Microemulsion Electrokinetic Chromatography <i>Shih-Huan Hsieh, Hsi-Ya Huang, Po-Sheng Chen and Chen-Kuang Chiu</i>	5:146
Sym5:66	11:00 – 12:30	Simultaneous Determination of Nineteen Intracellular Nucleotides and Sugar Nucleotides in CHO Cells by Capillary Electrophoresis <i>Huatao Feng, May May Lee, Niki Wong, Sheena Wee and Miranda Gek Sim Yap</i>	5:147
Sym5:67	11:00 – 12:30	Separation and Determination of Acrylamide in Traditional Chinese Medicines Processed in High Temperature by Non-Aqueous Capillary Electrophoresis <i>Hongyi Zhang, Zhihong Shi and Zhihua Wen</i>	5:147
Sym5:68	11:00 – 12:30	Leuprolide Acetate Assay in the Release Media: Cross-Validation of a HPLC Method with CE <i>Laleh Adlnasab, Narges Bahmanyar, Mohammad Imani, Hamid Mobedi, Ali Reza Fakhari and Saeed Novjavan</i>	5:147
Sym5:69	11:00 – 12:30	Simultaneous Stability Determination and Enantioseparation of Amlodipine Besylate by Capillary Electrophoresis (CE) <i>Ali Reza Fakhari, Saeed Nojavan, Soheila Haghighoo and Ali Mohammadi</i>	5:148
Sym5:70	11:00 – 12:30	Chiral Separation on Cellulose Dimethylphenylcarbamate-Immobilized Zirconia in Reversed-Phase Capillary Electrochromatography <i>J. Gwon, S. Joh, J. Jin and J. H. Park</i>	5:148

Technical Program

Sym5:71	11:00 – 12:30	Capillary Electrophoresis Electrochemical Detector Using Capacitometric Method <i>Kon Ha, Gi-sung Joo, Jun-Hyeok Kim, Tea-Sik Yoon, Hyun Ho Lee, C. J. Kang and Yong-Sang Kim</i>	5:148
Sym5:72	11:00 – 12:30	Highly Selective Focusing of Target Guest Molecule by Host Molecule Beta-Cyclodextrin in Moving Interaction Boundary in Capillary Electrophoresis <i>L. Y. Fan, X. J. Luo, W. Zhang, C. X. Cao and Z. X. Deng</i>	5:149
Sym5:73	11:00 – 12:30	Metabolomic Analysis of Tears from Climatic Droplet Keratopathy Patients Using NanoLC-MS/MS <i>Lei Zhou, Roger W. Beuerman, T. A. Cafaro, E. A. Urrets-Zavalía, J. A. Urrets-Zavalía and H. M. Serra</i>	5:149
Sym5:74	11:00 – 12:30	Using 1-Butyl-3-Methylimidazolium Based Ionic Liquids as Buffer Additive for Separation of Basic Proteins by Capillary Electrophoresis <i>X. P. Wu, W. P. Wei and J. M. Zhang</i>	5:150
Sym5:75	11:00 – 12:30	Determination of Heterocyclic Pesticides Residues in Vegetables Using Pressurized Capillary Electrochromatography <i>X. P. Wu, W. Zhang, W. M. Wu and G. N. Chen</i>	5:150
Sym5:76	11:00 – 12:30	Separation of α -, β -, γ -, and δ -Tocopherols by Monolithic Capillary Electrochromatography <i>Patcharin Chaisuwan, Duangjai Nacapricha, Prapin Wilairat, Zhengjin Jiang and Norman William Smith</i>	5:150
Sym5:77	11:00 – 12:30	Simultaneous Analysis of 13 Tricyclic Antidepressants by Capillary Electrophoresis-Tandem Mass Spectrometry <i>C. E. Uboh, X. Li, L. R. Soma, F. Y. Guan, R. Xu, J. A. Judy, Y. You and J. Chen</i>	5:151
Sym5:78	11:00 – 12:30	Study of Protein-Protein Interaction by Capillary Electrophoresis and Whole Column Imaged Capillary Isoelectric Focusing <i>Shinya Asai and Xing-Zheng Wu</i>	5:151

Lunch Break	12:30 – 14:00 hrs
-------------	-------------------

Technical Session	Session 5
Date/Time	Wednesday, 19 December 2007 / 14:00 – 15:30 hrs
Venue	Room 306
Chair	Werner Hoffmann

Sym5:21	14:00 – 14:15	Miniaturized Capillary Electrophoresis in Polymer Chip Format with Electrical Detection <i>W. Hoffmann, H. Mühlberger, W. Hwang, A. E. Guber and V. Saile</i>	5:131
Sym5:22	14:15 – 14:30	Ultraprapid Electrokinetic Microfluidic Mixer <i>Ng Wee Yang, Shireen Goh, Lam Yee Cheong and Isabel Rodríguez</i>	5:132
Sym5:23	14:30 – 14:45	Determination of Oxalate and Citrate in Plasma, Serum, and Urine Samples by Capillary Electrophoresis and High-Performance Liquid Chromatography <i>S. Woottisin, R. Z. Hossain, C. Yachantha and Y. Ogawa</i>	5:132
Sym5:24	14:45 – 15:00	Highly Ordered Nanostructures for DNA Separation <i>N. Kaji, T. Yasui, R. Ogawa, S. Hashioka, M. Tokeshi, Y. Horiike and Y. Baba</i>	5:132
Sym5:25	15:00 – 15:15	Chiral Separation of Sugars with Capillary Electrophoresis and HPLC by Using Various Derivative Reagents <i>B. G. Sun and L. Patridge</i>	5:133

