1995 International Conference on Flow Injection Analysis
Technical Program

Sunday, Aug. 13
5:00—8:00 pm  Registration at Meany Tower Hotel, Chancellors Room
6:30—8:00  Reception, Grand Ballroom

Monday, Aug. 14
8:00 am  Continental breakfast, compliments of ICFA; Registration
8:45  Welcome: Gary Christian

Session Chair: Charles Patton
8:55 L-1  "Liquid-Liquid Extraction Preconcentration in Solvent Extraction FIA Based on the Differential Flow Velocities," Charles A. Lucy and Susan Varkey, University of Calgary (Canada)
9:20 L-2  "The Application of Chromatomembrane-Cells to Extraction Procedures in Microanalysis," Jürgen Simon, Free University of Berlin (Germany) and Leonid N. Moskvin, State University of St. Petersburg (Russia)
9:45 L-3  "Membrane Assisted Flow Analysis," Vlastimil Kuban, Mendel University (Czech Republic)
10:10  Exhibits and Break
10:40 L-4  "Speciation Analysis Using Flow-Injection Methodology: A Review," Marek Trojanowicz, University of Warsaw (Poland)
11:05 L-5  "The Gig Harbor Environmental FIA Project," Don G. Olson, Global FIA (Washington) and Stan Stearns, Valco Instrument Co., Inc. (Texas)
11:55  On own for Lunch
1:25  Reconvene—Session Chair: Rob Synovec
1:30 L-7  "Head-space Flow Injection for the On-line Determination of Iodide in Urine Samples with Chemiluminescence Detection," J.L. Burguera, M. R. Brunetto, Y. Contreras, M. Burguez, M. Gallignani, P. Carrero and Y. Petit de Peña, University of Los Andes (Venezuela)
2:20 L-9  "Fluorimetric Determination of Trace Amounts of Aldehydes in Auto Exhaust Gas with 1,3-Cyclohexanedione by Flow Injection Analysis," Tadao Sakai, Hideki Nagasawa and Harumitsu Nishikawa, Aichi Institute of Technology (Japan)
2:45  Exhibits and Poster Session #1: Tadao Sakai, Session Chair
3:45 L-10  "Determination of Trace Amounts of Hydride Forming Elements by Atomic Absorption Spectrometry with On-line Preconcentration by Coprecipitation, as Illustrated by Assay of Ultra-low Levels of Se and As," Elo H. Hansen, Steffen Nielsen and Jens J. Sloth, Technical University of Denmark

4:10 L-11  "Non-Linearity with Metal-Metal Indicator Complex Reactions in FIA," Jacobus F. van Staden and Daniel Malan, University of Pretoria (South Africa)

4:35 L-12  "Sequential Injection Technique Employed for Stoichiometric Studies, Optimization and Quantitative Determination of Some Fluoroquinolone Antibiotics Complexed with Iron(II) in Sulfuric Acid Media," Salah M. Sultan and Fakhr Eldin O. Suliman, King Fahd University of Petroleum and Minerals (Saudi Arabia)


5:25  Close

Tuesday, Aug. 15

7:45 am Continental breakfast

8:30  Convene—Session Chair: Shoji Motomizu


9:00 L-15  "Flame and the Skill of the Analytical Chemist in Line of Traceability," Kazuo Yasuda, Hitachi Ltd. (Japan)


9:50  Exhibits and Poster session #2: Ricardo Erthal Santelli, Session Chair


11:40 L-19  "Electroinjection Analysis," Victor P. Andreev, Alexandre G. Kamenev, Nicolay S. Popov, Russian Academy of Sciences (Russia)

12:05  On own for Lunch

1:25  Reconvene—Session Chair: Elo Hansen

1:30 L-20  "Portable Flow Injection Monitors for Liquids and Gases," Peter W. Alexander, University of Tasmania (Australia)

2:20 L-22 "History and Future of Flow Injection Analysis in Japan." Shoji Motomizu, Okayama University (Japan)

2:45 L-23 "On-Line HPLC/FT-IR and CE/FT-IR Interfaces: Do They Have a Role in FIA?" Yuxin Zhu and Peter R. Griffiths, University of Idaho

3:10 Exhibits and Break

4:00 L-24 "Radiometric Flow Injection Analysis (RFIA)." Myint U, University of Yangon (Myanmar) and J. Tolgyessy, Slovak Technical University (Slovak Republic)

4:25 L-25 "Separation and On-line Detection of Sr\textsuperscript{90} in Nuclear Waste Samples by Sequential Injection Analysis," Jay W. Grate, Robert Strebin, and Jiri Janata, Pacific Northwest Laboratory (Washington) and Oleg Egorov and Jaromir Ruzicka, University of Washington

4:50 L-26 "A 'Home-made' FIA HG-AAS System," Amgrimur Thorlacius, Agricultural Research Institute (Iceland)

5:15 Close

5:45 Reception

6:30 Conference banquet, included in registration fee

Wednesday, Aug. 16

7:15 am Continental breakfast

8:00 Convene—Session Chair: Jose Burguera


8:55 L-29 "Potentiometric and Voltammetric Detection Using the Fountain Cell," M. Wasberg, K. Stenlund and A. Ivaska, Åbo Akademi (Finland)

9:20 Exhibits and Poster Session #3: Takeshi Yamane, Session Chair

10:20 L-30 "Novel \(\mu\)-flow Cells for Measurements in Organic and Aqueous Solutions and Their Application to \(\mu\)-FIA-FTIR." B. Lendl and R. Kellner, Vienna University of Technology (Austria)

10:45 L-31 "FIA Systems with Immobilized Enzymes—Improvement of Applicability by Integration of Coupled Reactions, Separation Steps and Background Correction," H.-L. Schmidt, Technische Universität München (Germany)

11:10 L-32 "Determination of Ultratrace Selenium(IV) in Water by FI On-line Sorbent Extraction Preconcentration and Separation Coupled with Electrothermal Atomic Absorption Spectrometry," Bernhard Welz, Xiu-ping Yan and Michael Sperling, Bodenseewerk Perkin-Elmer GmbH (Germany)

11:35 Planning for ICFIA 97

12:00 Close; afternoon free
6:30 pm Meet at Pier 69 on Seattle's waterfront for a cruise on the Victoria Clipper III to Gig Harbor Environmental Research Laboratory; buffet dinner aboard the boat; tour of the laboratory; dessert on the way back. Return to Pier 69 about 10:00.

**Thursday, Aug. 17**

8:00 Continental breakfast

8:30 Convene—Session Chair: Jada Ruzicka

8:35 L-33 “Sequential Injection Analysis (SIA) for At-line Process Analysis of Enzyme Activity,” Lars Hallgren and Kaja Lausten Knudsen, Novo Nordisk A/S (Denmark)

9:00 L-34 “Flow Injection on Disposable Preconcentrating Surfaces: Sorbent Beads and Organic Wetting Films,” David Holman, Yongyi Luo, Shigenori Nakano, Oleg Egorov, G. D. Christian and J. Ruzicka, University of Washington

9:25 L-35 “Potentiometric Flow Titration in Nonaqueous Solvent Systems,” Toshihiko Imato, Kyushu University (Japan)

9:50 L-36 “Thermal Micro-Biosensors for in vivo and ex vivo Determination of Blood Metabolites,” Bin Xie, and Bengt Danielsson, University of Lund (Sweden) and Aziz Amine, Universite Libre de Bruxelles (Belgium)

10:15 L-37 “Investigations on Flow-through Dialysis,” Wolfgang Frenzel, Technische Universität Berlin (Germany)

10:40 Exhibits and Break


12:10 Panel discussion—session chairs

12:40 Close

**Friday, Aug. 18** There will be a moderate hike in the Cascade Mountains for anyone interested. Stay an extra day and enjoy the high roads of the Pacific Northwest.
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<th><strong>Poster Session #1</strong> (Monday, August 14, 2:45—3:45 pm)</th>
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**P-1**  

**P-2**  
"Flow Injection Fluorimetric Determination of Mercury(II) with Calcein," A. Lista, M. Palomeque, B. Fernandez Band, Universidad Nacional del Sur (Argentina)

**P-3**  
"Nanomolar Determination of Glucose Utilising an Amperometric Biosensor Based on Covalently Bound Glucose Oxidase to a Reticulated Vitreous Carbon (RVC) Used as Working Electrode," **Masoud Khayami**, Bin Xie, Dario Kriz, Gillis Johansson, Per Olof Larsson, Bengt Danielsson, University of Lund (Sweden)

**P-4**  

**P-5**  
"Flow Injection Spectrophotometric Determination of NO, NO₂ and SO₂ in the Atmosphere Using Passive Sampling Devices," **Keiko Higuchi**, Ryuji Yamazaki and Akiko Inoue, Tokyo Kasei Kogyo Co. Ltd. (Japan)

**P-6**  

**P-7**  
"Flow Injection System for Determination of Trace Manganese in Salts: Elimination of Blank Peak Effect and Use of Catalytic Oxidation of Protocatechuic Acid by Hydrogen Peroxide," **Takeshi Yamane** and **Kazuo Koshino**, Yamanashi University (Japan)

**P-8**  
"Membrane-Based Gas Sensors for the Determination of Inorganic Volatile Species," **Dietrich Schepers** and Gerhard Schulze, Institut für Anorganische und Analytische Chemie (Germany) and **Wolfgang Frenzel**, Technische Universität Berlin (Germany)

**P-9**  
"Micro Flow Injection System for Spectrophotometric Determination," **Shoji Motomizu** and Hiroaki Nakamura, Okayama University (Japan)

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<th><strong>Poster Session #2</strong> (Tuesday, August 15, 9:50—10:50 am)</th>
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**P-10**  
"Potentiometric Flow Injection Method for Chloride with Unrivalled Features," (Demonstration), **Wolfgang Frenzel**, Technische Universität Berlin (Germany)

**P-11**  
"An Amperometric Biosensor Based on a Reticulated Vitreous Carbon Working Electrode with Covalently Bound Co-enzyme (NAD⁺) and Lactate Dehydrogenase," **Masoud Khayami**, Gillis Johansson, Bengt Danielsson, University of Lund (Sweden) and Nuria Pena Garcia, TMS Chem AB (Sweden)

**P-12**  
"Sample Treatment by FIA," **Vlastimil Kuban**, Mendel University (Czech Republic)

**P-13**  
"Spectrophotometric Flow Injection Analysis Based Displacement Reactions in Water-Ammonia Medium," **Vladimir V. Kuznetsov**, Du Dinh Dong and Vladislav V. Trubachev, Mendeleyev University (Russia)
**Poster Session #3 (Wednesday, August 16, 9:50—10:50 am)**

**Session Chair:** Takeshi Yamane

**P-19**

**P-20**
*"Simultaneous Flow Injection Determination of D- and L- Lactate by Enzyme Modified Carbon Paste Electrodes," D. Natassiah and L. Gorton, University of Lund (Sweden) and U. Spohn, University of Halle (Germany)*

**P-21**
*"Enzyme Electrode for Amplification of NAD+/NADH Using Glycerol Dehydrogenase and Diaphorase with Amperometric Detection in Flow Injection System," Xiaoting Tang and G. Johansson, University of Lund (Sweden)*

**P-22**
*"Sensitivity and Selectivity Enhancements in FIA Through the Use of Ternary Fluorescent Complexes," Liwen Ye and Charles A. Lucy, University of Calgary (Canada)*

**P-23**
*"Miniaturization of Flow Analysers," Vlastimil Kuban, Mendel University (Czech Republic)*

**P-24**
*"Flow Injection Analysis for Hypoxanthine in Meat with DO Detector and Enzyme Reactor," Manami Numata, Naomi Furuzaki, Satoshi Ito, Yasukazu Asano, DKK Corporation (Japan) and Yukio Yano, Itohamu Food Inc. (Japan)*

**P-25**
*"Versatile LED-Based Photometer for Liquid Phase Measurements and Optosensing in Flow Injection Analysis," (Demonstration), Wolfgang Frenzel, Technische Universität Berlin (Germany)*

**P-26**
*"Sequential Injection Extraction Applied to Forensic Toxicology for Drugs of Abuse from Urine," Kristina L. Peterson, Barry Logan, Jaromir Ruzicka and Gary D. Christian, University of Washington, Washington State Toxicology Laboratory*

**P-27**
*"C-18 in Continuous Flow System for Lead Preconcentration and Determination in Biological and Vegetable Samples by Flame Atomic Absorption Spectrometry," Ricardo Ethal Santelli, Rosimar Lima and Kátia Christina Leandro, Federal Fluminense University (Brazil)