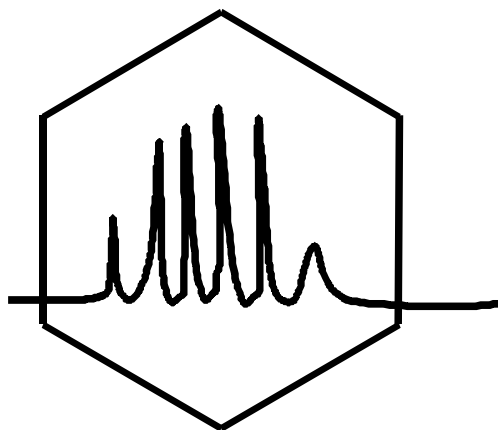


**INSTITUTE OF CHEMISTRY, SILESIA UNIVERSITY  
KATOWICE, POLAND**



# **THE XXXI<sup>st</sup> SYMPOSIUM**

**CHROMATOGRAPHIC METHODS  
OF INVESTIGATING THE ORGANIC COMPOUNDS**

**JUNE 4<sup>th</sup> – 6<sup>th</sup>, 2007  
KATOWICE – SZCZYRK**

**PROGRAM**

<http://chromatographia.us.edu.pl>

# THE XXXI<sup>st</sup> SYMPOSIUM

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PROGRAM

# ORGANIZING COMMITTEE

## CO-CHAIRPERSONS

TERESA KOWALSKA  
MIECZYSLAW SAJEWICZ

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BEATA WALCZAK  
KATARZYNA CIAZYŃSKA – HALAREWICZ  
GABRIELA GRYGIERCZYK  
MARTA STEFANIAK  
BEATA BOGOCZEK  
JAN HABDAS  
PIOTR KUŚ  
JÓZEF RZEPA  
JANUSZ SZULIK

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## ORGANIZERS OF CHEMOMETRIC SESSION

BEATA WALCZAK  
MICHAŁ DASZYKOWSKI

## **SOCIAL EVENT**

Monday, June 4<sup>th</sup>, 2007; 6.30 p.m.

Bonfire with presentation of a folk cabaret

## **MONDAY, JUNE 4<sup>th</sup>, 2007**

9.30-9.35 **Opening address** – T. KOWALSKA, M. SAJEWICZ

### ❖ **PLENARY SESSION I**

Chairpersons: T. KOWALSKA, P. JANDERA

- 9.35-10.20 Pitfalls in TLC  
*F. Geiss* (Ispra, Italy)
- 10.20-11.00 On the apparent *in vivo* preferential deacylation of cardiolipin in hamster testis.  
A thin layer chromatographic and densitometric analysis  
*F. M. Helmy* (Delaware State University, Dover, Delaware, USA)
- 11.00-11.40 Recent trends in liquid phase enantioseparation techniques  
*B. Chankvetadze* (Tbilisi State University, Tbilisi, Georgia)
- 11.40-12.00 **Coffee break**

### ❖ **PLENARY SESSION II**

Chairpersons: F. HELMY, B. CHANKVETADZE

- 12.00-12.40 Modulation of two-dimensional comprehensive LCxLC separations by adjusting phase system selectivity and simultaneous gradient elution  
*P. Jandera, P. Česla, T. Hájek* (Department of Analytical Chemistry, University of Pardubice, Pardubice, Czech Republic)
- 12.40-13.20 OPLC, a simple and powerful new method in drug metabolism research  
*I. Klebovich* (Department of Pharmaceutics, Semmelweis University, Budapest, Hungary)
- 13.20-13.50 Special techniques of development – tool in separation of natural mixtures by thin-layer chromatography  
*M. Waksmundzka – Hajnos* (Department of Inorganic Chemistry, Medical University of Lublin, Lublin, Poland)
- 13.50-14.20 Application of HPLC to the analysis of pigments extracted from red peppers with use of CO<sub>2</sub> in subcritical state  
*J. Rutkowska, A. Stołyhwo* (Faculty of Human Nutrition and Consumer Sciences, Warsaw University of Life Sciences, Warsaw, Poland)
- 14.30-15.30 **Lunch**

### ◇ **FIRMS SESSION (15.30-16.30)**

Chairpersons: M. KAMINSKI, J. RZEPA

### ◆ **POSTER SESSION I (16.30-17.30)**

Chairpersons: L. KARTSOVA, W. VERSCHELDE

18.30 **Bonfire**

## **TUESDAY, JUNE 5<sup>th</sup>, 2007**

### **CHEMOMETRIC SESSION *The use of chemometrics in separations sciences***

#### **❖ PLENARY SESSION I**

Chairpersons: F. MARINI, M. DASZYKOWSKI

- 9.00-9.45 Chemometric tools for exploration, resolution and quantification of chromatographic data sets  
*A. de Juan* (Chemometrics Group, Department of Analytical Chemistry, Universitat de Barcelona, Barcelona, Spain)
- 9.45-10.00 *Discussion*
- 10.00-10.45 Experimental design in chromatography  
*Y. Vander Heyden* (Department of Analytical Chemistry and Pharmaceutical Technology, Vrije Universiteit Brussel-VUB, Brussels, Belgium)
- 10.45-11.00 *Discussion*
- 11.00-11.30 **Coffee break**

#### **❖ PLENARY SESSION II**

Chairpersons: A. DE JUAN, Y. VANDER HEYDEN

- 11.30-12.15 Classification methods in chromatography  
*F. Marini* (Dipartimento di Chimica, Università di Roma "La Sapienza", Rome, Italy)
- 12.15-12.30 *Discussion*
- 12.30-13.00 Relating chromatographic data to sensory measurements  
*I. Stanimirova, B. Walczak* (Institute of Chemistry, The University of Silesia, Katowice, Poland)
- 13.00-13.30 Facing the LC-MS data  
*M. Daszykowski, B. Walczak* (Institute of Chemistry, The University of Silesia, Katowice, Poland)

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14.00-15.00 **Lunch**

#### **◆ POSTER SESSION II (15.30-16.30)**

Chairpersons: D. MILOJKOVIĆ – OPSENICA, J. KOWALCZYK

#### **◆ POSTER SESSION III (17.00-18.00)**

Chairpersons: S. APERS, T. H. DZIDO

19.00 **Supper**

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## **WEDNESDAY, JUNE 6<sup>th</sup>, 2007**

### **❖ PLENARY SESSION III**

Chairpersons: I. KLEBOVICH, F. GEISS

- 9.30-10.00 Determination of saponins in *Maesa lanceolata* by LC-UV/MS. Development and validation  
*M. Theunis, S. Apers, L. Pieters, A. Vlietinck* (University of Antwerp, Department of Pharmaceutical Sciences, Antwerp, Belgium)
- 10.00-10.30 Simplified explanation of changes of separation selectivity in RP HPLC systems with various modifiers  
*A. Klimek – Turek, T. H. Dzido* (Chair of Chemistry, Medical University of Lublin, Lublin, Poland)
- 10.30-11.00 The new, polish apparatus for high performance liquid chromatography dedicated for analytical, semi-preparative and didactic applications  
*M. Kamiński, D. Sakowicz* (Chemical Faculty, Gdańsk University of Technology, Gdańsk, Poland)
- 11.00-11.30 **Coffee break**

### **❖ PLENARY SESSION IV**

Chairpersons: M. WAKSMUNDZKA – HAJNOS, Ž. TEŠIĆ

- 11.30-12.00 Different approaches to characterise reversed-phase liquid chromatographic columns  
*E. Adams, J. Hoogmartens, E. Haghedooren, T. Németh* (Katholieke Universiteit Leuven, Laboratory for Pharmaceutical Analysis, Leuven, Belgium)
- 12.00-12.30 Comparison of methods for selection of dissimilar reversed-phase HPLC systems  
*P. Forlay-Frick<sup>1,2</sup>, R. Put<sup>1</sup>, E. Van Gyseghem<sup>1</sup>, J. H. Kalivas<sup>3</sup>, Y. Vander Heyden<sup>1</sup>, K. Héberger<sup>2</sup>* (<sup>1</sup>Department of Analytical Chemistry and Pharmaceutical Technology, a VICIM partner, Vrije Universiteit Brussel, VUB, Brussels, Belgium; <sup>2</sup>Chemical Research Center, Hungarian Academy of Sciences, Budapest, Hungary; <sup>3</sup>Department of Chemistry, Idaho State University, Pocatello, Idaho, USA)
- 12.30-12.50 A new tool for inorganic nitrogen speciation study simultaneous determination of ammonium ion, nitrite and nitrate by ion chromatography  
*I. Kurzyca, P. Niedzielski, J. Siepak* (A. Mickiewicz University, Faculty of Chemistry, Poznań, Poland)
- 12.50 **Closing address** – T. KOWALSKA, M. SAJEWICZ
- 13.00 **Lunch**

## MONDAY, JUNE 4<sup>th</sup>, 2007

### ◆ POSTER SESSION I (16.30-17.30)

Chairpersons: L. KARTSOVA, W. VERSCHELDE

1. Separation of chiral drug compounds on new polysaccharide based stationary phases  
*H. Ates, D. Mangelings, Y. Vander Heyden* (Department of Analytical Chemistry and Pharmaceutical Technology, Vrije Universiteit Brussel-VUB, Brussels, Belgium)
2. Evaluation of peptide MS/MS spectra in proteomics by means of artificial neural network analysis  
*T. Bączek<sup>1</sup>, A. Buciniński<sup>2</sup>, R. Kaliszan<sup>1</sup>* (<sup>1</sup>Medical University of Gdańsk, Department of Biopharmaceutics and Pharmacodynamics, Gdańsk, Poland; <sup>2</sup>Nicolaus Copernicus University, Department of Biopharmacy, Collegium Medicum in Bydgoszcz, Bydgoszcz, Poland)
3. The use of RP-HPLC method with fluorescence detection for analysis of isomeric azaarenes: benzoacridines and dibenzoacridines  
*U. Blaszczyk, B. Janoszka, M. Szumska – Kostrzewska* (Medical University of Silesia, Medical Faculty, Zabrze, Poland)
4. Formation of *N*-nitrosopyrrolidine (NPYR) from proline during heating of cured meat  
*G. Drabik<sup>1,2</sup>, T. Kowalska<sup>2</sup>, H. Paelinck<sup>1</sup>, S. Deprez<sup>1</sup>, M. Radzewicz<sup>2</sup>, A. Dąbrowa<sup>2</sup>, W. Verschelde<sup>1</sup>* (<sup>1</sup>KaHo St.-Lieven, Department of Biochemistry, Laboratory of Meat Technology, Gent, Belgium; <sup>2</sup>Silesian University, Institute of Chemistry, Katowice, Poland)
5. Development of drug impurities profiles using orthogonal chromatographic systems: pH optimization  
*M. Dumarey<sup>1</sup>, R. Sneyers<sup>2</sup>, W. Janssens<sup>2</sup>, Y. Vander Heyden<sup>1</sup>* (<sup>1</sup>Department of Analytical Chemistry and Pharmaceutical Technology, Vrije Universiteit Brussel - VUB, Brussels, Belgium; <sup>2</sup>API development-Analytical Sciences, Johnson & Johnson Pharmaceutical Research & Development, Beerse, Belgium)
6. SPE clean-up of aminoazaarenes and HPLC-DAD determination of these proarcinogenic compounds in gravies, the byproduct of proteinaceous food thermally treated  
*B. Janoszka<sup>1</sup>, U. Blaszczyk<sup>1</sup>, M. Sajewicz<sup>2</sup>, A. Damasiewicz – Bodzek<sup>1</sup>, L. Warzecha<sup>1</sup>* (<sup>1</sup>Medical University of Silesia, Medical Faculty, Zabrze, Poland; <sup>2</sup>Institute of Chemistry, Silesian University, Katowice, Poland)
7. Combination of gas chromatography and partition in *n*-hexane/acetonitrile system for identification of organic compounds in complex mixtures  
*U. Kotowska, V. Isidorov* (Institute of Chemistry, University of Białystok, Białystok, Poland)
8. Lipophilicity of isomers of *N,N*-dimethylquinolinesulfonamide  
*M. J. Maślankiewicz<sup>1</sup>, D. Kwapulińska<sup>1</sup>, K. Marciniak<sup>2</sup>* (<sup>1</sup>Institute of Chemistry, University of Silesia, Katowice, Poland; <sup>2</sup>Department of Organic Chemistry, The Medical University of Silesia, Sosnowiec, Poland)
9. The application of  $R_F$  parameter and topological indices and the  $\log P$  to investigate the solubility in water of selected organic compounds  
*A. Niestrój* (Institute of Chemistry, Silesian University, Katowice, Poland)
10. QSRR study of retention parameters of some salicylic acid derivatives  
*N. Perišić – Janjić, T. Djaković – Sekulić, E. Djurendić* (Faculty of Sciences, Department of Chemistry, Novi Sad, Serbia)
11. Estimation of effects of developed dyes to detecting of cholesterol by densitometry method  
*M. Podgórna, E. Brodacka* (Institute of Chemistry, Silesian University, Katowice, Poland)



12. On the impact of non-impregnated silica gel and L-arginine-impregnated silica gel on enantioseparation of ibuprofen and naproxen in thin layer chromatography  
*M. Sajewicz, M. Gontarska, A. Dąbrowa, T. Kowalska* (Institute of Chemistry, Silesian University, Katowice, Poland)
13. On the spontaneous oscillatory transenantiomerization and thin layer chromatographic enantioseparation of the *S*-(+)- and *R*-(-)-flurbiprofen antimers  
*M. Sajewicz, G. Grygierczyk, M. Gontarska, L. Wojtal, D. Kronenbach, T. Kowalska* (Institute of Chemistry, Silesian University, Katowice, Poland)
14. On the enantioseparation of the ibuprofen and naproxen antimers in the novel thin-layer chromatographic system with the positive effect of the eluent demixion  
*M. Sajewicz<sup>1</sup>, K. Kaczmariski<sup>2</sup>, M. Gontarska<sup>1</sup>, S. Kiszka<sup>1</sup>, T. Kowalska<sup>1</sup>* (<sup>1</sup>Institute of Chemistry, Silesian University, Katowice, Poland; <sup>2</sup>Department of Chemical and Process Engineering, Technical University of Rzeszów, Rzeszów, Poland)
15. Chromatographic and spectrometric analysis of unsymmetrical calix[4]pyrroles  
*K. Słopiecka, P. Kuś* (Institute of Chemistry, Silesian University, Katowice, Poland)
16. How to select representative samples in tracing origin of food products  
*A. Smolińska, I. Stanimirova, M. Daszykowski, B. Walczak* (Institute of Chemistry, The University of Silesia, Katowice, Poland)
17. Investigation of chemical stability of porphyrin solution  
*M. Stefaniak, M. Kolodziejczyk* (Institute of Chemistry, Silesian University, Katowice, Poland)
18. Planar chromatographic determination of bioactive reductors in pharmaceuticals and cosmetics  
*B. Szpikowska – Sroka, F. Buhl* (Institute of Chemistry, Silesian University, Katowice, Poland)
19. GC-FID determination of acrylamide as silylation derivative in food samples  
*M. Szumska – Kostrzewska, B. Janoszka, C. Dobosz, U. Blaszczyk* (Faculty of Medicine, Medical University of Silesia, Zabrze, Poland)
20. Influence of the polymerization mixture composition on the separation performance of methacrylate-ester-based monolithic columns in capillary electrochromatography  
*I. Tanret, D. Mangelings, Y. Vander Heyden* (Department of Analytical Chemistry and Pharmaceutical Technology, Vrije Universiteit Brussel, Brussels, Belgium)
21. Determination of hydrophobic parameters for some arylpiperazines by RP-TLC and PCA  
*J. Trifković, F. Andrić, M. Natić, Ž. Tešić, D. Milojković – Opsenica* (Faculty of Chemistry, University of BelgradeBelgrade, Serbia)
22. Modeling IEC and  $\nu$ -IEC of selected acids on weakly acidic resin in the H<sup>+</sup> form  
*W. Wanat, W. Zapala, K. Kaczmariski* (Department of Chemical and Process Engineering, Chemical Faculty, Rzeszów University of Technology, Rzeszów, Poland)
23. Is this peak pure?  
*M. Wróbel, M. Daszykowski, B. Walczak* (Institute of Chemistry, The University of Silesia, Katowice, Poland)
24. Comparative analysis of the different retention models in RP-HPLC systems with RP-30 stationary phase and methanol – water eluent  
*W. Zapala* (Department of Chemical and Process Engineering, Chemical Faculty, Rzeszów University of Technology, Rzeszów, Poland)
25. Optimization of solid phase extraction protocol using retention data from micro thin-layer chromatography  
*P. K. Zarzycki, F. B. Harasimiuk, M. Baran, M. B. Zarzycka, E. Włodarczyk* (Department of Environmental Biology, Koszalin University of Technology, Koszalin, Poland)

26. Separation studies of selected endocrine disrupting compounds (EDCS) using temperature dependent inclusion chromatography  
*P. K. Zarzycki, E. Włodarczyk, M. Baran, F. B. Harasimiuk, T. Heese* (Department of Environmental Biology, Koszalin University of Technology, Koszalin, Poland)
27. Retention and separation studies of testosterone and its derivatives using temperature controlled micro thin-layer chromatography  
*P. K. Zarzycki, M. B. Zarzycka* (Department of Environmental Biology, Koszalin University of Technology, Koszalin, Poland)

## **TUESDAY, JUNE 5<sup>TH</sup>, 2007**

### **◆ POSTER SESSION II (15.30-16.30)**

Chairpersons: D. MILOJKOVIĆ – OPSENICA, J. KOWALCZYK

1. Determination of caffeine in tea extracts by CE and HPTLC  
*A. V. Alekseeva, L. A. Kartsova* (Saint-Petersburg State University, Saint-Petersburg, Russia)
2. Dependence of tea polyphenols content on milk proteins  
*A. V. Alekseeva, L. A. Kartsova* (Saint-Petersburg State University, Saint-Petersburg, Russia)
3. Modification of ceramic monoliths by poly(dimethylvinylethynylcarbinol) and its derivatives  
*H. Balayan<sup>1</sup>, S. Grigoryan<sup>1</sup>, G. Brem<sup>2</sup>, R.-M. Leiser<sup>2</sup>* (<sup>1</sup>JSC "Chemtech", Yerevan, Armenia; <sup>2</sup>Agrobiogen GmbH, Hilgertshausen, Germany)
4. Using gas chromatography and specular reflectance UV-VIS techniques for surface determination of silica packings modified with ketoimines and their copper complexes  
*P. Bielecki, I. Rykowska, W. Wasiak* (Adam Mickiewicz University, Faculty of Chemistry, Poznań, Poland)
5. Size-exclusion chromatography of water-soluble cellulose derivatives  
*A. Boymirzaev, A. Turaev* (Namangan, Uzbekistan)
6. Determination of capabilities of new sorbents to preconcentrate selected transient metals  
*J. Byra, I. Rykowska, W. Wasiak* (Adam Mickiewicz University, Faculty of Chemistry, Poznań, Poland)
7. Influence of temperature on shape of sample zones in normal-phase systems of preparative planar chromatography  
*T. H. Dzido, K. Ścibiorski* (Chair of Chemistry, Medical University of Lublin, Lublin, Poland)
8. Testosterone detection in human serum by RP-HPLC  
*D. Gorczyca, J. K. Rumiński* (Department of Organic Chemistry, Nicolaus Copernicus University, Toruń, Poland)
9. Densitometric investigation of formation carboxyphenyl- and acetamidophenylpyridylporphyrins  
*J. Habdas<sup>1</sup>, J. Bloda<sup>1</sup>, M. Sajewicz<sup>1</sup>, I. Madejska<sup>2</sup>* (<sup>1</sup>Institute of Chemistry, Silesian University, Katowice, Poland; <sup>2</sup>Institute of Physics, Silesian University, Katowice, Poland)
10. Desorption by overheated water vapour – new method in VOCs analysis  
*V. A. Isidorov, K. Bielawska* (Institute of Chemistry, University of Białystok, Białystok, Poland)
11. Identification of natural organic dyes in historical objects by HPLC  
*A. Jarek, J. K. Rumiński* (Department of Organic Chemistry, Nicolaus Copernicus University, Toruń, Poland)
12. GC determination of volatile siloxanes in biogas  
*A. Kaszuba<sup>1</sup>, Z. Dobkowski<sup>1</sup>, B. Koszałkowska<sup>2</sup>, U. Mazurek – Smolnik<sup>1</sup>* (<sup>1</sup>Industrial Chemistry Research Institute, Warsaw, Poland; <sup>2</sup>Municipal Water Supply and Wastewater Treatment Company in Warsaw, The Treatment Plant "Czajka", Warsaw, Poland)
13. Durability investigations of nicotinic acid derivatives on a silica gel  
*W. Klimczok, A. Pyka* (Department of Analytical Chemistry, Silesian Academy of Medicine, Sosnowiec, Poland)
14. Application of densitometry and spectrodensitometry for the evaluation of the new visualizing reagents for selected drugs  
*W. Klimczok, A. Pyka, D. Gurak* (Department of Analytical Chemistry, Silesian Academy of Medicine, Sosnowiec, Poland)

15. Influence of stationary phase impregnation with aqueous solutions of CuSO<sub>4</sub> on separation of nicotinic acid derivatives  
*W. Klimczok, A. Pyka, D. Gurak* (Department of Analytical Chemistry, Silesian Academy of Medicine, Sosnowiec, Poland)
16. Search of cork taint in wine by HPLC method  
*J. Kupiński, J. K. Rumiński* (Department of Organic Chemistry, Nicolaus Copernicus University, Toruń, Poland)
17. Optical fiber as a carrier for SPME. Purification and preparation  
*M. Palacz, W. Wasiak* (Adam Mickiewicz University, Faculty of Chemistry, Poznań, Poland)
18. Total antioxidant potential measurements using RP-HPLC with fluorescence detection  
*P. Piszcz, K. Czajka, J. Czajka, B. K. Glód* (University of Podlasie, Institute of Chemistry, Siedlce, Poland)
19. Analysis of PAH's in food using improved GC/MS and RP-HPLC assays: influence of temperature on selectivity  
*P. Piszcz<sup>1</sup>, M. Suszek<sup>1</sup>, S. Grzeńkiewicz<sup>2</sup>, B. K. Glód<sup>1</sup>* (<sup>1</sup>University of Podlasie, Institute of Chemistry, Siedlce, Poland; <sup>2</sup>Meat and Fat Research Institute, Warszawa, Poland)
20. Investigation of the hydrogermylation reaction mechanism using different HPLC systems  
*P. Piszcz, L. Świątek, K. Pypowski, N. Erchak, B. K. Glód* (University of Podlasie, Institute of Chemistry, Siedlce, Poland)
21. Planar electrochromatography separation of tryptophane and valine enantiomers  
*B. Polak, A. Halka, T. H. Dzido* (Chair of Chemistry, Medical University of Lublin, Lublin, Poland)
22. New procedures of determination of acylglycerols and other contaminations of fatty acid methyl esters – FAME, using HPLC  
*G. Romanik, M. Kamiński* (Department of Analytical Chemistry, Chemical Faculty, Gdańsk University of Technology, Gdańsk, Poland)
23. Application of planar chromatography to determination of synthetic dyes in foodstuffs  
*J. Skarkova, V. Ostry, I. Rehurkova, J. Ruprich, P. Kremeckova* (National Institute of Public Health in Prague, Centre for the Hygiene of Food Chains in Brno, Brno, Czech Republic)
24. Gas chromatography as a tool for determining reactivity of Polish coals in hydrogen production process  
*A. Smoliński, N. Howaniec* (Central Mining Institute, Katowice, Poland)
25. Analysis of the cyclic and aromatic compounds on the capillary columns containing 3-benzylketoimine groups  
*R. Wawrzyniak, K. Dudkiewicz, W. Wasiak* (Faculty of Chemistry, Adam Mickiewicz University, Poznań, Poland)
26. Chromatographic separation and isolation of incense-cedar's sapwood essential oil constituents  
*M. Włodarczyk<sup>1</sup>, A. Szumny<sup>2</sup>, M. Gleńsk<sup>1</sup>, W. Cisowski<sup>1</sup>* (<sup>1</sup>Faculty of Pharmacy, Wrocław Medical University, Wrocław, Poland; <sup>2</sup>Faculty of Food Science, Wrocław University of Environmental and Life Sciences, Wrocław, Poland)

## **TUESDAY, JUNE 5<sup>TH</sup>, 2007**

### **◆ POSTER SESSION III (17.00-18.00)**

Chairpersons: S. APERS, T. H. DZIDO

1. Chromatographic fingerprint development for *Rhizoma chuanxiong* and *Rhizoma ligustici*  
*G. Alaerts, M. Van Der Stock, N. Matthijs, Y. Vander Heyden* (Department of Analytical Chemistry and Pharmaceutical Technology (FABI), Vrije Universiteit Brussel (VUB), Jette, Belgium)
2. Reversed-phase thin-layer chromatography of some guaianolides isolated from endemic species *Amphoricarpos neumayeri*  
*A. A. B. Atrog<sup>1</sup>, T. Tosti<sup>1</sup>, M. B. Jadranin<sup>2</sup>, M. M. Natić<sup>1</sup>, D. Milojković – Opsenica<sup>1</sup>, Ž. Lj. Tešić<sup>1</sup>* (<sup>1</sup>Faculty of Chemistry University of Belgrade, Belgrade, Serbia; <sup>2</sup>Institute of Chemistry, Technology and Metallurgy, Center for Chemistry, Belgrade, Serbia)
3. Determination of albumin in urine by capillary zone electrophoresis with stacking with polymer solution of polyethylenoxide (PEO)  
*E. A. Bessonova, L. A. Kartsova, L. N. Laricheva* (Saint-Petersburg State University, Institute of Analytical Instrumentation (IAI), Russian Academy of Sciences, Saint-Petersburg, Russia)
4. Determination of cyclopentane and styrene partition coefficients between foamed polymers and air using GC-MS  
*M. Choczyński, A. Juszkiewicz* (Jagiellonian University, Faculty of Chemistry, Kraków, Poland)
5. Determination of hydrazine in workplace air  
*E. Dobrzyńska* (Central Institute for Labour Protection – National Research Institute, Warsaw, Poland)
6. GC-MS investigation of pyrolytic compounds in the material of coal waste dumps  
*M. J. Fabiańska, M. Misz* (Faculty of Earth Sciences, University of Silesia, Sosnowiec, Poland)
7. The separation of some tropane alkaloids from *Datura innoxia* Mill. by using of planar electrochromatography technique  
*M. Gadzikowska<sup>1</sup>, I. Malinowska<sup>2</sup>, M. Waksmundzka-Hajnos<sup>1</sup>, K. Mikos<sup>2</sup>* (<sup>1</sup>Faculty of Pharmacy, Medical University, Lublin, Poland; <sup>2</sup>Faculty of Chemistry, M. Curie-Skłodowska University, Lublin, Poland)
8. Application of the high performance liquid chromatography method in analysis of dibutyl phthalate (DBP) in blood of exposed mice  
*A. Hernik, K. Góralczyk, K. Czaja, P. Struciński, E. Tyrkiel, W. Korcz, J. K. Ludwicki* (Department of Environmental Toxicology, National Institute of Hygiene, Warszawa, Poland)
9. GC-MS in characterisation of organic pollution in atmospheric precipitation (the Szrenica range, Poland)  
*I. Jelonek, M. J. Fabiańska* (Faculty of Earth Sciences, University of Silesia, Sosnowiec, Poland)
10. Determination of 4-methyl-3-penten-2-one in workplace air  
*A. Jeżewska* (Central Institute for Labour Protection – National Research Institute, Warsaw, Poland)
11. Determination of morpholine in workplace air by chromatographic method  
*J. Kowalska* (Central Institute for Labour Protection – National Research Institute, Warsaw, Poland)
12. Optimization of on line derivatization of nonsteroidal antiinflammatory drugs  
*S. Kurkiewicz, W. Stefanik, A. Dzierżęga – Łęcznar, K. Stepień, A. Jankowski* (Faculty of Pharmacy, Medical University of Silesia, Sosnowiec, Poland)

13. The investigation of chemical composition of human iris pigment epithelium lipofuscin by Py-GC/MS technique  
*J. Lodowska<sup>1</sup>, D. Wolny<sup>1</sup>, E. Chodurek<sup>1</sup>, S. Kurkiewicz<sup>1</sup>, L. Węglarz<sup>1</sup>, L. Krzyżanowski<sup>1</sup>, N. Sakina<sup>2</sup>, B. Bilińska<sup>1</sup>, M. Ostrowsky<sup>2</sup>, A. Petela<sup>3</sup>, D. Dobrowolski<sup>4</sup>* (<sup>1</sup>Faculty of Pharmacy, Medical University of Silesia, Sosnowiec, Poland; <sup>2</sup>Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia; <sup>3</sup>Department of Medical Physics, University of Silesia, Katowice, Poland; <sup>4</sup>Ophthalmology Department, District Railway Hospital, Katowice, Poland)
14. Determination of nicotine in air by chromatographic method  
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15. Application of gas chromatography with thermal desorption to determination of volatile organic compounds emitted from the Xeroxing machine  
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16. European Union Framework Program projects relating to global inventory of greenhouse gases  
*J. M. Necki, K. Różański, M. Zimnoch, A. Korus, J. Rosiek* (AGH University of Science and Technology, Faculty of Physics and Applied Computer Science, Kraków, Poland)
17. Reversed-phase liquid chromatography for in amino acids in blood plasma, muscles and liver of sheep  
*K. M. Niedźwiedzka, J. Kowalczyk, M. Czauderna* (The Kielanowski Institute of Animal Physiology and Nutrition, Polish Academy of Sciences, Jabłonna, Poland)
18. Optimization of the capillary zone electrophoresis method to analyse compounds used for early diagnosis of Alzheimer's disease  
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19. SPE-HPTLC of procyanidins from the barks of different species and clones of *Salix*  
*L. Pobłocka – Olech, M. Krauze – Baranowska* (Department of Pharmacognosy, Medical University of Gdańsk, Gdańsk, Poland)
20. Application of the GC/MS technique to the determination of selected drugs in sewage water  
*J. Rzepa, A. Gwizdala, P. Pacholarz* (Institute of Chemistry, Silesian University, Katowice, Poland)
21. The electrophoretic determination of inorganic ions in the urine for the diagnostic of various nephritic diseases  
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22. Determination by reversed-phase high-performance liquid chromatography of  $\delta$ -,  $\gamma$ - and  $\alpha$ -tocopherol in milk and blood plasma  
*I. Wąsowska, K. Korniluk, J. Kowalczyk, M. Czauderna* (The Kielanowski Institute of Animal Physiology and Nutrition, Polish Academy of Sciences, Jabłonna, Poland)
23. Fractionation and quantification of fatty acids in colostrum, milk and blood plasma of goats  
*I. Wąsowska, J. Kowalczyk, J. P. Michalski, M. Czauderna* (Kielanowski Institute of Animal Physiology and Nutrition, Polish Academy of Sciences, Jabłonna, Poland)
24. Purification of proteinaceous metabolites produced by entomopathogenic fungus *Conidiobolus coronatus*  
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25. Analysis of volatile sulphur compounds in breath for the purpose of medical diagnosis  
*B. Wzorek, M. Skowron, P. Mochalski, I. Śliwka, J. Lasa* (The Henryk Niewodniczański Institute of Nuclear Physics of Polish Academy of Science, Kraków, Poland)
26. Optimization of phosphomolybdic acid visualisation of selected prostaglandins on TLC plates  
*P. K. Zarzycki, M. A. Bartoszek, M. Baran, F. B. Harasimiuk* (Department of Environmental Biology, Koszalin University of Technology, Koszalin, Poland)
27. Can tremor and L-dopa, using ED-HPLC, measurements be used in the Parkinson's Disease patients diagnosis?  
*T. Zieliński<sup>1</sup>, A. Drabik<sup>2</sup>, W. Pakszys<sup>2</sup>, P. Piszcz<sup>2</sup>, B. K. Glód<sup>2</sup>* (<sup>1</sup>National Defense Academy, Warszawa, Poland; <sup>2</sup>University of Podlasie, Institute of Chemistry, Siedlce, Poland)