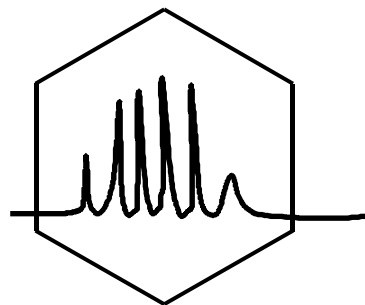


**INSTITUTE OF CHEMISTRY, UNIVERSITY OF SILESIA,  
KATOWICE, POLAND**



**THE XXXVI<sup>th</sup>  
SYMPOSIUM**

**CHROMATOGRAPHIC METHODS  
OF INVESTIGATING THE ORGANIC COMPOUNDS**

**JUNE 5<sup>th</sup>-7<sup>th</sup>, 2013**

**KATOWICE – SZCZYRK  
POLAND**

**PROGRAM**

## **SCIENTIFIC COMMITTEE OF THE SYMPOSIUM**

Teresa Kowalska (Katowice, Poland)  
Jarosław Polański (Katowice, Poland)  
Danica Agbaba (Belgrade, Serbia)  
Bezhan Chankvetadze (Tbilisi, Georgia)  
Friedrich Geiss (Ispra, Italy)  
Josef Jampilek (Brno, Czech Republic)  
Krzysztof Kaczmarski (Rzeszów, Poland)  
Huba Kalasz (Budapest, Hungary)  
Roman Kaliszan (Gdańsk, Poland)  
Łukasz Komsta (Lublin, Poland)  
Hubert Paelinck (Ghent, Belgium)  
Jerzy Silberring (Kraków, Poland)  
Kornelia Tekes (Budapest, Hungary)  
Živoslav Tešić (Belgrade, Serbia)  
Adam Voelkel (Poznań, Poland)  
Monika Waksmundzka-Hajnos (Lublin, Poland)  
Irene Vovk (Ljubljana, Slovenia)

## **ORGANIZATION COMMITTEE OF THE SYMPOSIUM**

Teresa Kowalska (Katowice, Poland)  
Jarosław Polański (Katowice, Poland)  
Krystyna Jarzembek (Katowice, Poland)  
Violetta Kozik (Katowice, Poland)  
Marcin Rojkiewicz (Katowice, Poland)

**SESSION I WEDNESDAY, JUNE 5<sup>th</sup>, 2013**

**CHAIRPERSONS:** Monika Waksmundzka-Hajnos and Roman Kaliszan

**9.25 – 9.30 am OPENING ADDRESS**

**9.30 – 10.00 am**

**1.** About some unusual findings in HPLC separation of enantiomers with polysaccharide-based chiral stationary phases

B. Chankvetadze

**10.00 – 10.30 am**

**2.** Capillary liquid chromatography

J. Silberring

**10.30 -11.00 am**

**3.** Recent results on food chemistry using nano-liquid chromatography

S. Fanali

**11.00 – 11.30 am**

**4.** Bioactive compounds obtained by structural manipulation of natural products

M. A. Castro

**11.30 am COFFEE BREAK**

**1.00 pm LUNCH**

**SESSION II WEDNESDAY, JUNE 5<sup>th</sup>, 2013**

**CHAIRPERSONS:** Danica Agbaba and Bezhan Chankvetadze

**2.00 – 2.30 pm**

5. Quantitative structure-retention relationships (QSRR) in proteomics and metabolomics

R. Kaliszan

**2.30 – 3.00 pm**

6. High dimensional nested analysis of variance of HPLC-DAD fingerprints to assess the effect of production season, quality grade and steam pasteurization on the phenolic composition of fermented rooibos herbal tea

I. Stanimirova

**3.00 – 3.30 pm**

7. The best thermal conditions for SFC separation

K. Kaczmarek

**3.30 – 4.00 pm**

8. Chemometric analysis of chromatographic retention data

Ł. Komsta

**POSTER SESSION I WEDNESDAY, JUNE 5<sup>th</sup>, 2013**

**CHAIRPERSONS:** Agnes Móricz and Maja Natić

**4.00 – 6.00 pm (COFFEE BREAK)**

**6.00 pm BONFIRE**

**SESSION III THURSDAY, JUNE 6<sup>th</sup>, 2013**

**CHAIRPERSONS:** Irena Vovk and Živoslav Tešić

**9.30 – 10.00 am**

**9.** Selected problems in chromatographic separation of ionizable drugs

M. Waksmundzka-Hajnos

**10.00 – 10.30 am**

**10.** Optimized RP-HPLC method to determine mCPBG from biological matrices

K. Tekes

**10.30 – 11.00 am**

**11.** Selection of adequate detection for chromatographic analysis of drugs and metabolites from biological matrices

H. Kalasz

**11.00 – 11.30 am**

**12.** New applications of sulfones in synthesis and organocatalysis

D. Diez

**11.30-11.45 am**

**13.** Innovative solutions of Shimadzu in chromatography or organic compounds

P. Stalica

**11.45 am COFFEE BREAK**

**1.00 pm LUNCH**

**SESSION IV THURSDAY, JUNE 6<sup>th</sup>, 2013**

**CHAIRPERSONS:** Huba Kalasz and Hubert Pealinck

**2.00 - 2.30 pm**

**14.** High performance liquid chromatography as an indispensable tool in plant chemosystematics and chemical ecology

Ch. Zidorn

**2.30 – 3.00 pm**

**15.** Chromatography of flavanols, procyanidins and methylxanthines in plant extracts and chocolate

I. Vovk

**3.00 – 3.30 pm**

**16.** Effect-directed isolation of plant antibacterials

A. Móricz

**3.30 - 4.00 pm**

**17.** Importance of a further development of chromatographic methods for a more adequate quality control of medicinal plants and better understanding of their applications

K. Demeyer

**POSTER SESSION II THURSDAY, JUNE 6<sup>th</sup>, 2013**

**CHAIRPERSONS:** Eveline De Mey and Łukasz Cieśla

**4.00 – 6.00 pm (COFFEE BREAK)**

**6.00 pm DINNER**

**SESSION V FRIDAY, JUNE 7<sup>th</sup>, 2013**

**CHAIRPERSONS:** Teresa Kowalska and Krzysztof Kaczmarek

**10.00 – 10.30 am**

**18.** On the mechanism of DPPH<sup>·</sup> reaction with free radical scavengers in solvents and on the surface of TLC plates

Ł. Cieśla

**10.30 – 11.00 am**

**19.** Pharmaceutical nanoparticles and methods of their characterization

J. Jampilek

**11.00 – 11.30 am**

**20.** New fillers for dental composites – examination by means of IGC

A. Voelkel

**11.30 – 11.50 am**

**21.** Study of thermally-induced reaction products of chemically bonded RP-18 stationary phase

W. Prus

**11.50 am            CLOSING REMARKS**

**12.00 am    LUNCH**

## POSTER SESSION I

1.

Probing an artificial polypeptide receptor library using a series of novel histamine H3 receptor ligands

A. Bąk, M. Daszykowski, V. Kozik, K. Jarzembek, Z. Kaminski, K. Kiec-Kononowicz, K. Kuder, J. Fraczyk, B. Kolesinska, P. Ciosek, J. Polanski

2.

UPLC analysis for diosgenin detection in fenugreek extracts obtained with different methods

J. Ciura, M. Kozioł, M. Leśko, W. Zapała, M. Tyrka, K. Kaczmarek

3.

Piperidine and piperine: extraction and content assessment in black pepper

E. De Mey, M. Marek-Swędzioł, I. Fraeye, M. Sajewicz, H. Paelinck, T. Kowalska

4.

Analysis of perindopril and quinapril, the ACE inhibitors by GC-FID

R. J. Ekiert, J. Krzek, M. Stolarczyk

5.

HPLC/DAD, HPLC/ELSD, and LC-MS investigation of spontaneous oscillatory reactions of *L*-phenylalanine and *L*-hydroxyproline in 70% aqueous acetonitrile solutions

A. Godziek, A. Maciejowska, M. Sajewicz, T. Kowalska



6.

Gas chromatography in determination of fuel char reactivity and gasification process efficiency - experimental study on steam gasification of various fuels in fixed-bed reactor

N. Howaniec, A. Smoliński

7.

Specific mobility of selected phytochemicals in thin-layer chromatographic systems and its possible relevance to pharmacokinetics

M. Knaś, D. Szeremeta, J. Polański, M. Sajewicz, T. Kowalska

8.

Chromatographic methods of investigating spontaneous oscillatory reactions of *L*-phenylalanine and *L*-proline in aqueous solutions

A. Maciejowska, A. Godziek, M. Sajewicz, T. Kowalska

9.

Synthesis new terephthalamides and structure characterization

M. Matussek, V. Kozik, K. Jarzembek, K. Pytlakowska, S. Michalik, A. Bąk, M. Rojkiewicz

10.

Polyphenolic profiles of Serbian polyfloral honeys and discrimination of the geographical origin

M. Natić, U. Gašić, D. Dabić, S. Kečkeš, Ž. Tešić

11.

A comparison of the plant extraction methods upon an example of common thyme (*Thymus vulgaris*)

M. Orłowska, I. Stanimirova, D. Staszek, K. Rykulska, S. Słomczyńska, M. Sajewicz, M. Waksmundzka-Hajnos, T. Kowalska

12.

Chromatographic fingerprints and chemometrics as a tool for prediction of the total antioxidant capacity of rooibos infusions

J. Orzel, M. Daszykowski, B. Walczak, D. de Beer, E. Joubert, A. E. Schulze, T. Beelders, A. J. de Villiers

13.

Chemical characterization of sour cherry wine produced in Serbia

M. Pantelić, D. Dabić, U. Gašić, M. Natić, Ž. Tešić, R. Baošić

14.

Development and validation of a TLC-densitometric method for the quantitative determination of amygdalin

A. Radoičić, R. Petronijević, H. Majstorović, M. Stanojević, Ž. Tešić, D. Milojković-Opsenica

15.

Application of gas chromatography in the study of the polycyclic aromatic hydrocarbons concentrations in gas sampled from the burning mine waste dump located in Ruda Śląska, Upper Silesia, Poland

A. Smoliński, P. Kuna Gwoździewicz, N. Howaniec

16.

Chromatographic vs. calculated lipophilicities of selected cosmetic raw materials

A. W. Sobańska, E. Brzezińska

17.

Analysis of new stationary phase for amines detection by UHPLC utilizing multiple detection method

S. Swinarew, S. Golba, J. Gabor, M. Łężniak, T. Flak, B. Swinarew

18.

Analysis of volatile fraction from selected thyme (*Thymus L*) species by means of GC-MS and HS-GC-MS

D. Staszek, M. Orłowska, J. Rzepa, G. Szymczak, T. Kowalska, M. Waksmundzka-Hajnos

19.

Application of chromatographic data to build an analytical model of ligand-G protein-coupled receptors interaction

G. Żydek, E. Brzezińska

## POSTER SESSION II

1.

Chemometric comparison of the retention of 35 model compounds in HPLC gradient conditions with four columns and two gradient modifiers

E. Bartuzi, Ł. Komsta

2.

Structure activity relationship studies of thiosemicarbazone derivatives

J. Bogocz, J. Polański

3.

Application of TLC and HPLC to quantification of protoporphyrin IX, Zn-protoporphyrin IX, and hemin in Parma ham

H. De Maere, M. Jaros, M. Dziewięcka, I. Fraeye, M. Sajewicz, H. Paelinck, T. Kowalska

4.

Principital component Analysis and Hierarchical Clustering Analysis as novel approach for studying bioactivity of  $\alpha$ -adrenergic and imidazoline receptors ligands

S. Filipić, K. Nikolic, A. Smoliński, D. Agbaba

5.

Gas chromatography combined with mass spectrometry as a tool for food quality control

J. Gabor, M. Łężniak, S. Golba, T. Flak, A. Swinarew

6.

GPC as a tool for anionic polymerization of propylene oxide control

S. Golba, J. Gabor, M. Łężniak, T. Flak, S. Swinarew,

7.

Determination flavonols and phenolic acids in *Andrographis paniculata* and dietary supplements

J. Kadłubowska, A. Filipiak-Szok, M. Kurzawa, E. Szłyk

8.

Investigation of cyclohexene oxidation mechanism over nanogold catalyst using NMR and GC-MS methods

M. Kapkowski, P. Bartczak, J. Polański

9.

Determination of purine alkaloids in some Asiatic plants

D. Kasiorkiewicz, A. Filipiak-Szok, M. Kurzawa, E. Szłyk

10.

Application of analysis of variance to different forms of HPLC-UV/VIS data

M. Kazura, P. Zerzucha, B. Walczak, D. de Beer, E. Joubert, A. E. Schulze,

T. Beelders, A. J. de Villiers

11.

Multivariate curve resolution in thin layer chromatography

M. Kobyłka, Ł. Komsta

12.

Investigation of the Sonogashira coupling reactions in a heterogeneous system using chromatographic techniques

M. Korzec, P. Bartczak, J. Polański

13

Comparative analysis of diesel oil samples of different origin based on chromatographic fingerprints

B. Krakowska, M. Daszykowski, I. Grabowski, G. Zaleszczyk, M. Sznajder

14.

Estimation of linear isotherm model parameters in Supercritical Fluid Chromatography (SFC)

M. Leśko, D. P. Poe, K. Kaczmarski

15.

Analysis of selected non-steroidal anti-inflammatory drugs for animals using the chromatographic techniques

M. Leźniak, J. Gabor, S. Golba, T. Flak, A. Swinarew

16.

Stability of lipophilic vitamins in fodder premixes

J. Maćkowiak, A. Voelkel, Z. Okulus

17.

TLC determination of tiapride hydrochloride and its impurities in pharmaceuticals

K. Ranković, S. Filipić, K. Nikolić, D. Agbaba

18.

Determination of water-soluble vitamins in European and Asiatic spices

M. Smolińska, A. Filipiak-Szok, M. Kurzawa, E. Szłyk

19.

Chemometric approach to lipophilicity of selected cosmetic raw materials

A. W. Sobańska, E. Brzezińska

20.

Single chromatographic run approach to lipophilicity of selected cosmetic raw materials

A. W. Sobańska, E. Brzezińska