

SEZNAM PRACÍ
LIST OF PAPERS

2004

**Ústav analytické chemie
Akademie věd České republiky
Brno**

**Institute of Analytical Chemistry
Academy of Sciences of the Czech Republic
Brno**

Published by Institute of Analytical Chemistry
Academy of Sciences of the Czech Republic
Veveří 97
CZ – 61142 Brno
Czech Republic

Editors J. Doleželová and M. Mikešová

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A. ORIGINAL PAPERS

- A1.** Beckers, J. L. - Boček, P.
Calibrationless quantitative analysis by indirect UV absorbance detection in capillary zone electrophoresis: The concept of the conversion factor.
Electrophoresis, 25 [2] (2004) 338-343.
- A2.** Boušková, E. - Presutti, C. - Gebauer, P. - Fanali, S. – Beckers, J. L. - Boček, P.
Experimental assessment of electromigration properties of background electrolytes in capillary zone electrophoresis.
Electrophoresis, 25 [2] (2004) 355-359.
- A3.** Cabálková, J. - Žídková, J. - Příbyla, L. - Chmelík, J.
Determination of carbohydrates in juices by capillary electrophoresis, high-performance liquid chromatography, and matrix-assisted laser desorption/ionization-time of flight-mass spectrometry.
Electrophoresis, 25 [3] (2004) 487-493.
- A4.** Čáslavský, J. - Kotlaříková, P. - Benešová, K.
Sampling of airborne polycyclic aromatic hydrocarbons with semipermeable membrane devices.
Environmental Chemistry Letters, 2 [-] (2004) 89-92.
- A5.** Čmelík, R. - Štikarovská, M. - Chmelík, J.
Different behavior of dextrans in positive-ion and negative-ion mass spectrometry.
Journal of Mass Spectrometry, 39 [12] (2004) 1467-1473.
- A6.** Dočekal, B.
Trapping of hydride forming elements within miniature electrothermal devices. Part 2. Investigation of collection of arsenic and selenium hydrides on a surface and in a cavity of a graphite rod.
Spectrochimica Acta B, 59 [4] (2004) 497-503.

- A7.** Dočekal, B. - Gücer, S. - Selecká, A.
Trapping of hydride forming elements within miniature electrothermal devices: part 1. Investigation of collection of arsenic and selenium hydrides on a molybdenum foil strip.
Spectrochimica Acta B, 59 [4] (2004) 487-495.
- A8.** Hamoudová, R. - Urbánek, M. - Pospíšilová, M. - Polášek, M.
Assay of phenolic compounds in red wine by on-line combination of capillary isotachopheresis with capillary zone electrophoresis.
Journal of Chromatography A, 1032 [1-2] (2004) 281-287.
- A9.** Horáková, H. - Grüner, B. - Vespalec, R.
Preconditions for reasonable detection sensitivity and for zone symmetry in electrophoretic separations of cluster borane anions.
Journal of Chromatography A, 1051 [1-2] (2004) 227-235.
- A10.** Kadlec, R. - Plocková, J. - Růžička, F. - Holá, V.
Implementation of particle analysers in the detection and description of biofilm formation.
Clinical Microbiology and Infection, 10 [Suppl. 3] (2004) 102.
- A11.** Kahle, V. - Košťál, V. - Zeisbergerová, M.
Sample injection in capillary electrochromatography by heart-cut technique.
Journal of Chromatography A, 1044 [1-2] (2004) 259-265.
- A12.** Klepárník, K. - Grochová, D. - Škopková, Z. - Adam, T.
Detection of the major mutation M467T causing cystinuria by single-strand conformation polymorphism analysis using capillary electrophoresis.
Electrophoresis, 25 [1] (2004) 57-64.
- A13.** Klepárník, K. - Mikuška, P.
A continuous-flow instrument for the determination of linear polyacrylamide stability.
Electrophoresis, 25 [14] (2004) 2139-2143.

- A14.** Klepárník, K. - Otevřel, M.
Unsteady transport phenomena in free-flow electrophoresis - prerequisite of ultrafast sample cleaning in microfluidic devices. *Electrophoresis*, 25 [21-22] (2004) 3633-3642.
- A15.** Korkmaz, D. - Dědina, J. - Ataman, O. Y.
Stibine preconcentration in a quartz trap with subsequent atomization in the quartz multiatomizer for atomic absorption spectrometry. *Journal of Analytical Atomic Spectrometry*, 19 [2] (2004) 255-259.
- A16.** Koutoučková, L. - Schumann, P. - Durnová, E. - Spröer, C. - Sedláček, I. - Neča, J. - Zdráhal, Z. - Němec, M.
Arthrobacter nitroguajacolicus sp. nov., a novel 4-nitroguaiacol-degrading actinobacterium. *International Journal of Systematic and Evolutionary Microbiology*, 54 [3] (2004) 773-777.
- A17.** Kováčik, V. - Bekešová, S. - Tvaroška, I. - Hirsch, J. - Chmelík, J.
Electrospray ionization ion-trap multistage mass spectrometric study of sodium cationized aldobiuronic and pseudoaldobiuronic acid derivatives. *Journal of Mass Spectrometry*, 39 [12] (2004) 1554-1561.
- A18.** Křivánková, L. - Březková, M. - Gebauer, P. - Boček, P.
Importance of the counterion in optimization of a borate electrolyte system for analyses of anions in samples with complex matrices performed by capillary zone electrophoresis. *Electrophoresis*, 25 [20] (2004) 3406-3415.
- A19.** Matoušek, T. - Sturgeon, R.
Chemical vapour generation of silver: reduced palladium as permanent reaction modifier for enhanced performance. *Journal of Analytical Atomic Spectrometry*, 19 [8] (2004) 1014-1017.

- A20.** Mikuška, P.
Generator of fine polydisperse aerosol.
Collection of Czechoslovak Chemical Communications, 69 [7]
(2004) 1453-1463.
- A21.** Moravcová, D. - Jandera, P. - Urban, J. – Planeta, J.
Comparison of monolithic silica and polymethacrylate capillary
columns for LC.
Journal of Separation Science, 27 [10-11] (2004) 789-800.
- A22.** Motyka, K. - Mikuška, P.
Continuous fluorescence determination of formaldehyde in air.
Analytica Chimica Acta, 518 [1-2] (2004) 51-57.
- A23.** Pantůčková, P. - Křivánková, L.
Fast and simple method for determination of iodide in human
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Electrophoresis, 25 [7-8] (2004) 1102-1110.
- A24.** Planeta, J. - Roth, M.
Partition coefficients of low-volatility solutes in the ionic liquid
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supercritical CO₂ system from chromatographic retention
measurements.
Journal of Physical Chemistry B, 108 [30] (2004) 11244-11249.
- A25.** Pól, J. - Hyötyläinen, T. - Ranta-Aho, O. - Riekkola, M.L.
Determination of lycopene in food by on-line SFE coupled to
HPLC using a single monolithic column for trapping and
separation.
Journal of Chromatography A, 1052 [1-2] (2004) 25-31.
- A26.** Psota, V. - Boháčenko, I. - Chmelík, J. - Hartmann, J.
Starch granule size distribution in caryopses of selected malting
varieties of spring barley.
Monatsschrift für Brauwissenschaft, 57 [2] (2004) 8-12.

- A27.** Růžička, F. - Holá, V. - Horká, M.
Electromigration techniques - rapid methods for the detection and identification of urinary tract pathogens.
Clinical Microbiology and Infection, 10 [Suppl. 3] (2004) 621-622.
- A28.** Růžička, F. - Holá, V. - Horká, M.
Kapilární elektroforéza - možnosti rychlé separace a identifikace mikroorganismů.
[Capillary electrophoresis - the possibility of rapid separation and identification of microorganisms.]
Bulletin Československé společnosti mikrobiologické, 45 [-] (2004) 97.
- A29.** Sladkovský, R. - Solich, P. - Urbánek, M.
High-performance liquid chromatography determination of phenolic components in wine using off-line isotachophoretic pretreatment.
Journal of Chromatography A, 1040 [2] (2004) 179-184.
- A30.** Spěváčková, V. - Korunová, V. - Čejchanová, M. – Vobecký, M.
Sampling procedure and a ratio-indicator study of mercury determination in whole blood by using an AMA 254 atomic absorption spectrometer.
Analytical and Bioanalytical Chemistry, 380 [2] (2004) 346-350.
- A31.** Šalplachta, J. - Řehulka, P. - Chmelík, J.
Identification of proteins by combination of size-exclusion chromatography with matrix-assisted laser desorption/ionization time-of-flight mass spectrometry and comparison of some desalting procedures for both intact proteins and their tryptic digests.
Journal of Mass Spectrometry, 39 [12] (2004) 1395-1401.

- A32.** Šíma, J. - Rychlovský, P. - Dědina, J.
The efficiency of the electrochemical generation of volatile hydrides studied by radiometry and atomic absorption spectrometry.
Spectrochimica Acta B, 59 [1] (2004) 125-133.
- A33.** Štikarovská, M. - Chmelík, J.
Determination of neutral oligosaccharides in vegetables by matrix-assisted laser desorption/ionization mass spectrometry.
Analytical Chimica Acta, 520 [1-2] (2004) 47-55.
- A34.** Velický, J. - Titlbach, M. - Lojda, Z. - Dušková, J. - Vobecký, M. - Raška, I.
The effect of bromide on the ultrastructure of rat thyrocytes.
Annals of Anatomy-Anatomischer Anzeiger, 186 [3] (2004) 209-216.
- A35.** Vespalec, R. - Vlčková, M. - Horáková, H.
Aggregation and other intermolecular interactions of biological buffers observed by capillary electrophoresis and UV photometry.
Journal of Chromatography A, 1051 [1-2] (2004) 75-84.

B. BOOKS, CONTRIBUTIONS TO MONOGRAPHS, REVIEWS

- B1.** Foret, F. - Klepárník, K. - Gebauer, P. - Boček, P.
Ionic boundaries in biological capillary electrophoresis.
Journal of Chromatography A, 1053 [1-2] (2004) 43-57.
- B2.** Křenková, J. - Foret, F.
Immobilized microfluidic enzymatic reactors.
Electrophoresis 25 [21-22] (2004) 3550-3563.
- B3.** Roth, M.
Determination of thermodynamic properties by supercritical fluid chromatography.
Journal of Chromatography A 1037 [1-2] (2004) 369-391.
- B4.** Šenk, P. - Kozák, L. - Foret, F.
Capillary electrophoresis and mass spectrometry for screening of metabolic disorders in newborns.
Electrophoresis 25 [10-11] (2004) 1447-1456.

C. LECTURES, ABSTRACTS, POSTERS

- C1.** Benešová, K. - Čáslavský, J. - Grüner, B.
Electrospray ionisation - ion trap mass spectrometry of carboranes.
IMMS. 22nd Informal Meeting on Mass Spectrometry. - Tokaj
(HU), May 2-6, 2004.
In: 22nd IMMS. 22nd Informal Meeting on Mass Spectrometry.
Book of Abstracts and Program. 2004, p. 103.
(poster)
- C2.** Březková, M. - Gebauer, P. - Křivánková, L.
Is sodium borate buffer suitable for analyses of serum samples by
capillary zone electrophoresis ? The answer.
AACI 2004. 12th International Symposium Advances and
Applications of Chromatography in Industry. - Bratislava (SK),
June 29-July 1, 2004.
In: AACI 2004. 12th International Symposium Advances and
Applications of Chromatography in Industry. Proceedings. CD
Programming and Production: Slovak University of Technology,
Bratislava, 2004.
(poster)
- C3.** Cabálková, J. - Chmelík, J.
Analysis of starch degradation products and other carbohydrates
from spruce needles using various analytical techniques.
19th Meeting of Czech and Slovak Societies for Biochemistry and
Molecular Biology - Olomouc (CZ), August 31- September 3,
2004.
In: CHEMICA 43. Biochemický sjezd XIX. Proceedings of the
XIX. Meeting of Czech and Slovak Societies for Biochemistry and
Molecular Biology. Palacký University, Olomouc, 2004, p. 73-74.
(poster)

- C4.** Cabálková, J. - Chmelík, J. - Wahlund, K.G.
Combination of various analytical techniques for characterisation of low and high molecular weight carbohydrates in Norway spruce needles.
22nd International Carbohydrate Symposium. - Glasgow (GB), July 23-27, 2004.
In: 22nd International Carbohydrate Symposium. Book of Abstracts. Royal Society of Chemistry, Glasgow, 2004, p. P80.
(poster)
- C5.** Caslavská, J. - Maláškova, H. - Křivánková, L. - Gebauer, P. - Thormann, W.
Analysis of ethylglucuronide in human serum by capillary electrophoresis with indirect detection.
ITP 2004. 14th International Symposium on Capillary Electroseparation Techniques. - Roma (IT), September 12-15, 2004.
In: ITP 2004. 14th International Symposium on Capillary Electroseparation Techniques. Abstracts Book and Final Programme. Universita di Roma, Roma, 2004, p. P19.
(poster)
- C6.** Chmelík, J. - Řehulka, P. - Allmaier, G.
Identification of cereal proteins by analysis of in-gel digested nonspecific peptides by MALDI-TOF MS.
IMMS. 22nd Informal Meeting on Mass Spectrometry. - Tokaj (HU), May 2-6, 2004.
In: 22nd IMMS. 22nd Informal Meeting on Mass Spectrometry. Book of Abstracts and Program. 2004, p. 48.
(poster)
- C7.** Čmelík, R. - Chmelík, J.
Electrospray ionization mass spectrometry of dextrans - comparison of positive- and negative-ion modes.
IMMS. 22nd Informal Meeting on Mass Spectrometry. - Tokaj (HU), May 2-6, 2004.
In: 22nd IMMS. 22nd Informal Meeting on Mass Spectrometry. Book of Abstracts and Program. 2004, p. 104.
(poster)

- C8.** Dědina, J. - Kratzer, J.
Hydride trapping in quartz tube atomizers.
2. Ulusal Analitik Kimya Kongresi. - Malatya (TR),
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In: II. Ulusal Analitik Kimya Kongresi. Tebligler. 2004, p. 60.
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- C9.** Dědina, J. - Kratzer, J.
In-situ trapping of hydrides in quartz atomizers for atomic
absorption spectrometry: is it feasible?
8th Rio Symposium on Atomic Spectrometry. - Rio de Janeiro
(BR), August 1-6, 2004.
In: 8th Rio Symposium on Atomic Spectrometry. Rio de Janeiro,
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- C10.** Dočekal, B. - Krejčí, P.
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- C11.** Dočekal, B. - Krejčí, P.
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- C12.** Foret, F.
Coupling of microfluidic devices with mass spectrometry.
DICP Symposium (VI) on Separation and Detection of Biomolecules. - Dalian (CN), August 3-4, 2004.
In: DICP Symposium (VI) on Separation and Detection of Biomolecules. Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, 2004, p. 30-31.
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- C13.** Foret, F.
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ALA LabFusion 2004. A Visionary Conference on Emerging Laboratory Technologies. - Boston (US), June 12-16, 2004.
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- C14.** Foret, F. - Grym, J. - Spěšný, M. - Otevřel, M.
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ITP 2004. 14th International Symposium on Capillary Electro-separation Techniques. - Roma (IT), September 12-15, 2004.
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- C15.** Foret, F. - Klepárník, K. - Spěšný, M. - Grym, J.
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- C16.** Foret, F. - Otevřel, M.
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HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. - Salzburg (AT), February 8-12, 2004.
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- C17.** Grym, J. - Spěšný, M. - Foret, F.
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11th Electronic Devices and Systems Conference 2004. - Brno (CZ), September 9-10, 2004.
In: EDS'04. 11th Electronic Devices and Systems Conference 2004. Proceedings. Zdeněk Novotný, Brno, 2004, p. 321-322.
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- C18.** Holá, V. - Růžička, F. - Horká, M. - Šlais, K.
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World Conference on Magic Bullets - To Celebrate Paul Ehrlich's 150th Birthday. - Nürnberg (DE), September 9-11, 2004.
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- C19.** Horák, T. - Čulík, J. - Čejka, P. - Jurková, M. - Kellner, V. - Karásek, P. - Ostrá, E.V.
Supercritical fluid extraction in analysis of PCBs and PAHs in beer.
ECOpole'04. XIII Środkowoeuropejska Konferencja. - Jamrozowa Polana (PL), October 21-23, 2004.
In: ECOpole'04. XIII Środkowoeuropejska Konferencja. Streszczenia wystapień. 2004, p. 13.
(poster)

- C20.** Horáková, H. - Grüner, B. - Vespalec, R.
Conditions for high detection sensitivity and separation efficiency in separations of boron cluster anions.
EUROBORON 3. 3rd European Meeting on Boron Chemistry. - Průhonice (CZ), September 12-16, 2004.
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- C21.** Horáková, H. - Grüner, B. - Vespalec, R.
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HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. - Salzburg (AT), February 8-12, 2004.
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- C22.** Horáková, H. - Grüner, B. - Vespalec, R.
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- C23.** Horká, M. - Růžička, F. - Holá, V. - Horký, J. - Šlais, K.
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- C24.** Horká, M. - Šlais, K. - Růžička, F. - Holá, V. - Horký, J.
Capillary isoelectric focusing of proteins and microorganisms in uncoated capillaries with UV and fluorimetric detection.
ITP 2004. 14th International Symposium on Capillary Electroseparation Techniques. - Roma (IT), September 12-15, 2004.
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- C25.** Hrdlička, J. - Večeřa, Z. - Mikuška, P. - Opekar, F.
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[Continuous determination of trace concentrations of ammonia in air.]
56. Sjezd chemických společností. - Ostrava (CZ), September 6-9, 2004.
In: 56. Sjezd chemických společností. Sborník. - Chemické listy 98 [8] (2004). Česká chemická společnost, Ostrava, 2004, p. 495-496.
(lecture)
- C26.** Hrušovská, Z. - Dočekal, B.
Investigation of arsenic interference effects during in situ collection of selenium hydride within a THGA.
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- C27.** Hrušovská, Z. - Dočekal, B.
Investigation of trapping interference effects during in situ collection of selenium hydride within a THGA.
6th European Furnace Symposium and 11th Solid Sampling Colloquium with Atomic Spectrometry. - Balatonföldvár (HU), June 27-30, 2004.
In: 6th European Furnace Symposium and 11th Solid Sampling Colloquium with Atomic Spectrometry. Book of Abstracts. MKE -

Hungarian Chemical Society Spectrochemical Association,
Budapest, 2004, p. 60.
(poster)

- C28.** Hyötyläinen, T. - Lüthje, K. - Pól, J. - Shimmo, M. –
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On-line coupling of novel extraction techniques with
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- C29.** Hyötyläinen, T. - Lüthje, K. - Rautiainen-Rämä, M. - Pól, J. -
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Potential of on-line coupling of extraction and chromatography in
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27th International Symposium on Capillary Chromatography. -
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(poster)
- C30.** Jandera, P. - Moravcová, D. - Urban, J. - Planeta, J.
Characterisation and comparison of properties of monolithic and
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In: 27th International Symposium on Capillary Chromatography.
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- C31.** Karásek, P. - Ostrá, E.V. - Roth, M. - Schlake, R. - Fetner, M. -
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Extraction of bitter acids from hops using PSE: Determination of
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11th International Symposium & Exhibit on Supercritical Fluid Chromatography, Extraction & Processing. - Pittsburgh (US), August 1-4, 2004.

In: 11th International Symposium & Exhibit on Supercritical Fluid Chromatography, Extraction & Processing. Pittsburgh, 2004, p. 169-170.
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C32. Karásek, P. - Ostrá, E. - Roth, M. - Čulík, J. - Kellner, V. - Jurková, M.

Pressurized fluid extraction and subcritical water extraction: Application in analysis of hops and hop products.

27th International Symposium on Capillary Chromatography. - Riva del Garda (IT), May 31-June 4, 2004.

In: 27 International Symposium on Capillary Chromatography. Proceedings. I.O.P.M.S. vzw, Kortrijk, 2004, p. G03.
(poster)

C33. Karásek, P. – Varad'ová Ostrá, E. - Čulík, J. - Horák, T. - Čejka, P. - Jurková, M. - Kellner, V.

Analysis of plant natural products using pressurized liquid techniques.

ExTech 2004. 6th International Symposium on Advances in Extraction Technologies. - Leipzig (DE), September 6-8, 2004.

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C34. Klepárník, K.

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- C35.** Klepárník, K. - Otevřel, M.
Unsteady transport phenomena in free-flow electrophoresis - prerequisite of ultrafast sample cleaning before ESI - MS.
ITP 2004. 14th International Symposium on Capillary Electroseparation Techniques. - Roma (IT), September 12-15, 2004.
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- C36.** Košťál, V. - Kahle, V. - Šlais, K.
Capillary isoelectric focusing with LIF detection utilizing liquid core waveguides.
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- C37.** Kováčik, V. - Bekešová, S. - Tvaroška, I. - Hirsch, J. - Chmelík, J.
Electrospray ion trap multiple MS study of sodium cationized aldobiuronic and pseudoaldobiuronic acid derivatives.
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In: 22nd IMMS. 22nd Informal Meeting on Mass Spectrometry. 2004, p. 151.
(lecture)
- C38.** Kratzer, J. - Dědina, J. - Rychlovský, P.
A new approach to stibine preconcentration: in-situ trapping in quartz tube atomizer for atomic absorption spectrometry.
6th Joint Seminar of Young Scientists. - Praha (CZ), May 24, 2004.
In: 6th Joint Seminar of Young Scientists. Praha, 2004, p. 13.
(lecture)

- C39.** Kratzer, J. - Dědina, J. - Rychlovský, P.
A novel approach to hydrides preconcentration: in situ trapping of stibine in quartz tube atomizer for AAS.
17th Slovak Spectroscopic Conference. - Tatranské Zruby (SK), September 5-9, 2004.
In: XVIIth Slovak Spectroscopic Conference. Programme and Book of Abstracts. Technical University of Košice, Košice, 2004, p. 57.
(poster)
- C40.** Kratzer, J. - Dědina, J. - Rychlovský, P.
Nový přístup k prekoncentraci antimonu: záchyt stibanu na křemenném povrchu s následným stanovením metodou AAS.
[New approach to stibine preconcentration: trapping of stibane on quartz surface with subsequent AAS determination.]
2004. Soutěž o nejlepší práci v oboru spektroskopie mladých autorů (do 35 let). - Praha (CZ), December 1, 2004.
In: Bulletin Spektroskopické společnosti Jana Marka Marci, číslo 125, 2004. Praha, 2004, p. 7-8.
(lecture)
- C41.** Kratzer, J. - Dědina, J. - Rychlovský, P.
Prekoncentrace antimonu na křemenném povrchu po generování stibanu.
[Stibine preconcentration on a quartz surface after stibane generation.]
Analytická chemie - Merck 2004. 7. ročník soutěže o nejlepší studentskou vědeckou práci v oboru analytická chemie o cenu firmy Merck. - Ostrava (CZ), February 4-5, 2004.
In: Analytická chemie - Merck 2004. Sborník prací 7. ročníku soutěže o nejlepší studentskou vědeckou práci v oboru analytická chemie o cenu firmy Merck. Česká společnost chemická, Praha, 2004, p. 40-46.
(lecture)
- C42.** Křivánková, L. - Březková, M.
Transient isotachopheresis in zone electrophoresis. Relevance of the counter-ion of the electrolyte system to the isotachopheretic step.

PBA 2004. 15th International Symposium on Pharmaceutical and Biomedical Analysis. - Florence (IT), May 2-6, 2004.

In: PBA 2004. 15th International Symposium on Pharmaceutical and Biomedical Analysis. University of Florence, Florence, 2004, p. 46.

(lecture)

- C43.** Křivánková, L. - Gebauer, P. - Březková, M.
Kapilární zónová elektroforéza vzorků s vodivou maticí.
Optimalizace borátového separačního média.
[Capillary zone electrophoresis of samples with high conductivity matrix. Optimization of borate separation medium.]
Analýza organických látek v životním prostředí. - Komorní Lhotka (CZ), October 11-14, 2004.
In: Analýza organických látek v životním prostředí. 2 THETA, Český Těšín, 2004, p. 88-95.
(lecture)
- C44.** Maenhaut, W. - Chi, X. - Cafmeyer, J. - Salma, I. - Mikuška, P. - Večeřa, Z. - Broškovičová, A.
Investigations during summer field campaigns in central Europe on the performance of a diffusion denuder for the elimination of sampling artifacts for carbonaceous aerosols.
EAC 2004. European Aerosol Conference 2004. - Budapest (HU), September 6-10, 2004.
In: EAC 2004. Abstracts of the European Aerosol Conference 2004. Volume II. Elsevier, Oxford, 2004, p. S1069-S1070.
(poster)
- C45.** Matoušek, T. - Sturgeon, R.
Chemical vapour generation of silver: enhanced efficiency by chemical modification.
6th European Furnace Symposium and 11th Solid Sampling Colloquium with Atomic Spectrometry. - Balatonföldvár (HU), June 27-30, 2004.
In: 6th European Furnace Symposium and 11th Solid Sampling Colloquium with Atomic Spectrometry. MKE - Hungarian Chemical Society Spectrochemical Association, Budapest, 2004, p. 26.
(lecture)

- C46.** Mikuška, P. - Večeřa, Z.
New collector for continuous sampling of atmospheric aerosols.
EAC 2004. European Aerosol Conference 2004. - Budapest (HU),
September 6-10, 2004.
In: EAC 2004. European Aerosol Conference 2004. Volume I.
Elsevier, Oxford, 2004, p. S431-S432.
(lecture)
- C47.** Mikuška, P. - Večeřa, Z.
Nový sampler pro kontinuální stanovení rozpustné frakce
atmosférických aerosolů.
[New sampler for continuous determination of soluble fraction of
atmospheric aerosols.]
Česká aerosolová společnost. - Praha (CZ), November 24, 2004.
In: Sborník konference. Česká aerosolová společnost, Praha, 2004,
p. 17-20.
(lecture)
- C48.** Motyka, K. - Mikuška, P. - Večeřa, Z. - Hrdlička, J.
Chemiluminiscenční stanovení formaldehydu ve vzduchu.
[Chemiluminescence determination of formaldehyde in air.]
56. Sjezd chemických společností. - Ostrava (CZ), September 6-9,
2004.
In: 56. Sjezd chemických společností. Sborník. - Chemické listy
98 [8] (2004). Česká chemická společnost, Ostrava, 2004, p. 611.
(poster)
- C49.** Motyka, K. - Mikuška, P. - Večeřa, Z.
Fast and sensitive chemiluminescence determination of
formaldehyde in air.
Euroanalysis XIII. 13th European Conference on Analytical
Chemistry. - Salamanca (ES), September 5-10, 2004.
In: Euroanalysis XIII. European Conference on Analytical
Chemistry. Salamanca, 2004, p. OS1-5.
(lecture)
- C50.** Ostrá, E.V. - Karásek, P. - Roth, M.
Mapping of valuable organic constituents of several tea herbs by
compressed fluid extraction techniques and GC-MS.
27th International Symposium on Capillary Chromatography. -
Riva del Garda (IT), May 31-June 4, 2004.

In: 27 International Symposium on Capillary Chromatography. Proceedings. I.O.P.M.S. vzw, Kortrijk, 2004, p. G04.
(poster)

- C51.** Ostrá, E.V. - Karásek, P. - Roth, M. - Schlake, R. - Fetner, M. - Kaziunas, A.
Solvent extraction of selected tea drugs: Pressurized solvent extraction, supercritical fluid extraction, and liquid extraction at ambient conditions.
11th International Symposium & Exhibit on Supercritical Fluid Chromatography, Extraction & Processing. - Pittsburgh (US), August 1-4, 2004.
In: 11th International Symposium & Exhibit on Supercritical Fluid Chromatography, Extraction & Processing.
Pittsburgh, 2004, p. 171-172.
(poster)
- C52.** Otevřel, M. - Klepárník, K.
Application of generalized dispersion theory for the solution of unsteady transport phenomena in free-flow electrophoresis.
ITP 2004. 14th International Symposium on Capillary Electro-separation Techniques. - Roma (IT), September 12-15, 2004.
In: ITP 2004. 14th International Symposium on Capillary Electro-separation Techniques. Abstracts Book and Final Programme. Universita di Roma, Roma, 2004, p. P71.
(poster)
- C53.** Otevřel, M. - Klepárník, K.
Použití generalizované teorie disperze pro exaktní řešení rychlosti migrace a rozmytí zón při elektroforéze ve volném toku.
[Application of the generalized dispersion theory for an exact solution of migration velocity and zone broadening in free-flow electrophoresis.]
4. Pracovní setkání fyzikálních chemiků a elektrochemiků. - Brno (CZ), February 2, 2004.
In: IV. Pracovní setkání fyzikálních chemiků a elektrochemiků. Sborník příspěvků. Vydavatelství MU Brno, Brno, 2004, p. 32.
(lecture)

- C54.** Planeta, J. - Roth, M.
Infinite-dilution solute partition coefficients in a room-temperature ionic liquid-CO₂ system from supercritical fluid chromatography. ICCT 2004. 18th IUPAC Conference on Chemical Thermodynamics. - Beijing (CN), August 17-21, 2004.
In: ICCT 2004. 18th IUPAC Conference on Chemical Thermodynamics. Chinese Chemical Society, Beijing, 2004, p. 151.
(lecture)
- C55.** Pól, J. - Hyötyläinen, T. - Ranta-Aho, O. - Hartonen, K. - Riekkola, M.L.
On-line SFE coupled to HPLC using a single monolithic column for trapping and separation: Determination of lycopene in food. 11th International Symposium & Exhibit on Supercritical Fluid Chromatography, Extraction & Processing. - Pittsburgh (US), August 1-4, 2004.
In: 11th International Symposium & Exhibit on Supercritical Fluid Chromatography, Extraction & Processing. Pittsburgh, 2004, p. 164.
(poster)
- C56.** Pól, J. - Ranta-Aho, O. - Hyötyläinen, T. - Riekkola, M.L.
Determination of lycopene in fruits and vegetables by on-line SFE-HPLC employing one monolithic column used both for trapping and for separation.
27th International Symposium on Capillary Chromatography. - Riva del Garda (IT), May 31-June 4, 2004.
In: 27 International Symposium on Capillary Chromatography. Proceedings. I.O.P.M.S. vzw, Kortrijk, 2004, p. P28.
(poster)
- C57.** Pól, J. - Ranta-Aho, O. - Hyötyläinen, T. - Wenclawiak, B.W. - Roth, M. - Riekkola, M.L.
On-line connection of SFE to HPLC - application to aqueous and solid samples.
HPLC 2004. 28th International Symposium and Exhibit on High Performance Liquid Phase Separations and Related Techniques. - Philadelphia (US), June 12-18, 2004.

In: HPLC 2004. 28th International Symposium and Exhibit on High Performance Liquid Phase Separations and Related Techniques. Philadelphia, 2004, p. 334.
(poster)

- C58.** Preisler, J. - Zdráhal, Z. - Spěšný, M. - Foret, F. - Klepárník, K. - Malá, Z. - Doškář, J. - Pantůček, J. - Konečná, H. - Krásenský, P. Capillary electrophoresis of bacteriophage 812 proteins combined with MALDI mass spectrometry.
HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. - Salzburg (AT), February 8-12, 2004.
In: HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. Final Program & Book of Abstracts. Tyrol Congress, Innsbruck, 2004, p. 83-84.
(poster)
- C59.** Růžička, F. - Holá, V. - Horká, M. - Šlais, K. Identification of the yeasts by capillary electrophoretic techniques with use of dynamic modification of the cells by fluorescent stain. World Conference on Magic Bullets - To Celebrate Paul Ehrlich's 150th Birthday. - Nürnberg (DB), September 9-11, 2004.
In: World Conference on Magic Bullets - To Celebrate Paul Ehrlich's 150th Birthday. Program and Abstracts. International Society of Chemotherapy, Nürnberg, 2004, p. A-117.
(poster)
- C60.** Růžička, F. - Holá, V. - Horká, M. Možnosti využití kapilární elektroforézy v rychlé mikrobiologické diagnostice.
[Usage of capillary electrophoresis in fast microbiological diagnostic.]
Slezské dny preventivní medicíny. - Lázně Darkov (CZ), June 12-13, 2004.
In: Slezské dny preventivní medicíny. Krajská hygienická stanice Moravskoslezského kraje, Ostrava, 2004
(lecture)
- C61.** Šalplachta, J. - Chmelík, J. - Allmaier, G. New approach in proteomics of gluten: using chymotrypsin and MALDI hybrid multistage mass spectrometer.

19th Meeting of Czech and Slovak Societies for Biochemistry and Molecular Biology. - Olomouc (CZ), August 31-September 3, 2004.

In: CHEMICA 43S. Proceedings of the XIX. Meeting of Czech and Slovak Societies for Biochemistry and Molecular Biology. Palacký University, Olomouc, 2004, p. 20-21.
(lecture)

- C62.** Šalplachta, J. - Chmelík, J. - Allmaier, G.
Using chymotrypsin and matrix-assisted laser desorption/ionization quadrupole ion trap mass spectrometer in proteomics of wheat gluten.
IMMS. 22nd Informal Meeting on Mass Spectrometry. - Tokaj (HU), May 2-6, 2004.
In: 22nd IMMS. 22nd Informal Meeting on Mass Spectrometry. Book of Abstracts and Program. 2004, p. 50.
(poster)
- C63.** Šišková, Z. - Vytisková, S. - Glatz, Z. - Kahle, V.
Study of cytosolic glutathione S-transferase activity with styrene oxide by electromigration methods.
ITP 2004. 14th International Symposium on Capillary Electroseparation Techniques. - Roma (IT), September 12-15, 2004.
In: ITP 2004. 14th International Symposium on Capillary Electroseparation Techniques. Abstracts Book and Final Programme. Universita di Roma, Roma, 2004, p. P32.
(poster)
- C64.** Štikarovská, M. - Chmelík, J.
The characterization of the barley proteins and glycoproteins by using separation methods and mass spectrometry.
19th Meeting of Czech and Slovak Societies for Biochemistry and Molecular Biology. - Olomouc (CZ), August 31-September 3, 2004.
In: CHEMICA 43S. Proceedings of the XIX. Meeting of Czech and Slovak Societies for Biochemistry and Molecular Biology. Palacký University, Olomouc, 2004, p. 42.
(poster)

- C65.** Štikarovská, M. - Chmelík, J.
The comparison of negative- and positive-ion modes of MALDI-TOF mass spectrometry as the tools for analysis of neutral oligosaccharides.
22nd International Carbohydrate Symposium. - Glasgow (GB), July 23-27, 2004.
In: 22nd International Carbohydrate Symposium. Book of Abstracts. Royal Society of Chemistry, Glasgow, 2004, p. P60.
(poster)
- C66.** Urbánek, M. - Křivánková, L.
Extremely sensitive method for determination of iodide in samples with complex matrices using hyphenation of capillary isotachopheresis and zone electrophoresis.
PBA 2004. 15th International Symposium on Pharmaceutical and Biomedical Analysis. - Florence (IT), May 2-6, 2004.
In: PBA 2004. 15th International Symposium on Pharmaceutical and Biomedical Analysis. Abstract Book and Final Programme. University of Florence, Florence, 2004, p. 169.
(poster)
- C67.** Večeřa, Z. - Sklenská, J. - Bartošíková, A.
Využitie metódy LVi-GC/MS na stanovenie terpénov v ovzduší.
Setkání uživatelů GC/MS. - Tichonice (CZ), June 8-9, 2004.
(lecture)
- C68.** Vespalec, R. - Horáková, H. - Grüner, B. - Plešek, J.
The way from present electrophoretic chiral separation of boron cluster anions to their chiral preparations.
EUROBORON 3. 3rd European Meeting on Boron Chemistry. - Průhonice u Prahy (CZ), September 12-16, 2004.
In: EUROBORON 3. The 3rd European Meeting on Boron Chemistry. Ústav anorganické chemie AV ČR, Praha, 2004, p. O35.
(lecture)

- C69.** Vespalec, R. - Vlčková, M. - Horáková, H.
Side-interactions of biological buffers.
HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. - Salzburg (AT), February 8-12, 2004.
In: HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. Tyrol Congress, Innsbruck, 2004, p. 122-123. (lecture)
- C70.** Volná, K. - Holčapek, M. - Lemr, K. - Čáslavský, J. - Kačer, P. - Poustka, J.
Generation of ESI-MS/MS libraries of organic compounds.
IMMS. 22nd Informal Meeting on Mass Spectrometry. - Tokaj (HU), May 2-6, 2004.
In: 22nd IMMS. 22nd Informal Meeting on Mass Spectrometry. Book of Abstracts and Program. 2004, p. 52.
(poster)
- C71.** Zeisbergerová, M. - Košťál, V. - Kahle, V.
Sample injection in capillary electrochromatography by heart-cut technique.
HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. - Salzburg (AT), February 8-12, 2004.
In: HPCE 2004. 17th International Symposium on Microscale Separations and Capillary Electrophoresis. Final Program & Book of Abstracts. Tyrol Congress, Innsbruck, 2004, p. 113-114.
(poster)
- C72.** Zeisbergerová, M. - Šrámková, M. - Glatz, Z. - Kahle, V.
Separation of microcystins by capillary electrochromatography on sol-gel monolithic columns.
ITP 2004. 14th International Symposium on Capillary Electro-separation Techniques. - Roma (IT), September 12-15, 2004.
In: ITP 2004. 14th International Symposium on Capillary Electro-separation Techniques. Abstracts Book and Final Programme. Universita di Roma, Roma, 2004, p. P104.
(poster)

D. RESEARCH REPORTS

E. PATENTS, PATENT APPLICATIONS

- E1.** Dědina, J. - Kratzer, J.
Způsob prekoncentrace antimonu pro jeho stanovení metodami atomové spektrometrie.
[Way of stibine preconcentration for subsequent atomic spectrometry determination.]
Ústav analytické chemie AV ČR, Brno
PV-2004-854
- E2.** Karger, B.L. - Foret, F. - Preisler, J.
On-line and off-line deposition of liquid samples for matrix assisted laser desorption ionization-time of flight (MALDI-TOF) mass spectroscopy.
Northeastern University, Boston, MA, USA.
US 6,674,070

F VARIA

- F2.** Foret, F.
Editorial.
Electrophoresis 25[21-22] (2004) 3477-3478.
- F2.** Gaš, B. – Boček, P.
Editorial.
Electrophoresis 25[2] (2004) 185.

G. THESES

H. PAPERS AND BOOKS IN PRESS

- H1.** Foret, F. - Klepárník, K.
Chromatographic and electrophoretic methods.
In: Encyclopedia of Analytical Science, Elsevier, in press.
- H2.** Gebauer, P. - Boček, P.
A new type of migration zone boundary in electrophoresis. 1.
General description of boundary behavior based on EMD velocity profiles.
Electrophoresis (submitted IX/2004).
- H3.** Horká, M. - Růžička, F. - Holá, V. - Šlais, K.
Dynamic modification of microorganisms by pyrenebutanoate for fluorometric detection in capillary zone electrophoresis.
Electrophoresis, in press.
- H4.** Křivánková, L. - Boček, P.
Isotachophoresis.
In: Encyclopedia of Analytical Science, Elsevier, in press.
- H5.** Mazanec, K. - Chmelík, J.
Využití MALDI-TOF MS při analýze směsí polymerů.
Chemické listy, in press.
- H6.** Motyka, K. - Mikuška, P.
Přehled stanovení formaldehydu a dalších karbonylových sloučenin v ovzduší.
Chemické listy, in press.
- H7.** Řehulka, P. - Chmelík, J. - Allmaier, G.
The influence of nonspecific cleavage sites on identification of low molecular mass proteins by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry with seamless post-source decay fragment ion analysis.
Rapid Communications in Mass Spectrometry, in press.

- H8.** Šťastná, M. - Trávníček, M. - Šlais, K.
Colored pI standards and gel isoelectric focusing in strongly acidic pH.
Analytical Chemistry (submitted IV/2004).
- H9.** Šťastná, M. - Trávníček, M. - Šlais, K.
Suggestion of new azo dyes and selected commercial dyes as colored pI markers for IEF in acidic pH region.
Electrophoresis, in press.
- H10.** Šubert, J. - Šlais, K.
Pokroky v enantioselektivní TLC léčiv.
Česká a slovenská farmacie (submitted IX/2004).

J. GRANTS

- J1.** Boček, P.
Systémové jevy v analytické kapilární elektroforéze.
[System phenomena in analytical capillary electrophoresis.]
Akademie věd České republiky [Academy of Sciences of the
Czech Republic], **IAA4031103** (2001-2005).
- J2.** Ciganek, M. - Večeřa, Z.
Identifikace a toxikologické hodnocení těkavých kontaminantů v
zemědělském prostředí.
[Identification and toxicologic evaluation of volatile contaminants
in agriculture.]
Grantová agentura České republiky [Grant Agency of the Czech
Republic], **GA525/04/0011** (2004-2006).
- J3.** Čáslavský, J.
Analýza látek organického původu pomocí netradičních spojení
separačních metod s hmotnostní spektrometrií.
[Analysis of compounds of organic origin by non-traditional
coupling of separation methods and mass spectrometry.]
Akademie věd České republiky [Academy of Sciences of the
Czech Republic], **IAA4031104** (2001-2005).
- J4.** Černý, V. - Příbyla, L.
Výzkum možností zdokonalení postupu výroby dohříváných sýrů s
využitím biochemických charakteristik používaných ČMK.
Ministerstvo zemědělství České republiky [Ministry of Agriculture
of the Czech Republic], **QF 4082** (2004-2007).
- J5.** Foret, F. - Kozák, L.
Kombinace mikročipu s hmotnostní spektrometrií pro vysoce
efektivní populační a selektivní screening vrozených
metabolických poruch.
[Coupling of microchip with mass spectrometry for high
throughput population and selective screening of inborn metabolic
disorders.]
Akademie věd České republiky [Academy of Sciences of the
Czech Republic], **IBS4031209** (2002-2005).

- J6.** Horká, M. - Růžička, F. - Horký, J.
 Využití rychlé elektroforetické separace s velmi citlivou fluorimetrickou detekcí pro identifikaci mikroorganismů.
 [Using of the fast electrophoretic separation with the high sensitive fluorometric detection for the identification of microorganisms.]
 Akademie věd České republiky [Academy of Sciences of the Czech Republic], **IAA4031302** (2003-2006).
- J7.** Chmelík, J.
 Vývoj rychlých metod pro stanovení kvality škrobových zrn z různých druhů obilovin pro účely zemědělství a potravinářského průmyslu.
 [Development of rapid methods for assessing the quality of starch particles from various cereal species for purposes of agriculture and food industry.]
 Evropská komise [European Commission], INCO Copernicus, **ERB IC15-CT98-0909** (2001-2006).
- J8.** Kahle, V.
 Zařízení pro automatizaci elektrochromatografické a elektroforetické analýzy.
 [Instrumentation for electrochromatographic and electrophoretic analysis automation.]
 Akademie věd České republiky [Academy of Sciences of the Czech Republic], **IBS4031201** (2002-2005).
- J9.** Kahle, V. - Gaš, B. - Glatz, Z.
 Kapilární elektrochromatografie v lineárních a planárních mikrostrukturách s využitím polymerních náplní.
 [Capillary electrochromatography in linear and planar microstructures using polymer beds.]
 Grantová agentura České republiky [Grant Agency of the Czech Republic], **GA203/02/1447** (2002-2004).
- J10.** Karásek, P.
 Analytická kapalinová extrakce za zvýšených teplot a tlaků: od organických rozpouštědel k subkritické vodě.
 [Pressurized fluid extraction in analytical chemistry: from organic solvents to subcritical water.]
 Grantová agentura České republiky [Grant Agency of the Czech Republic], **GA203/03/0859** (2003-2005)

- J11.** Křivánková, L.
Vývoj nových optimalizačních a metodologických technik pro kapilární elektroforézu.
[Development of new optimization and methodological techniques for capillary electrophoresis.]
Akademie věd České republiky [Academy of Sciences of the Czech Republic], **IAA4031401** (2004-2006).
- J12.** Pól, J.
Využití přímé nadkritické fluidní extrakce v kontinuálním režimu v analýze životního prostředí a potravin.
[Use of direct continuous supercritical fluid extraction in environmental and food analysis.]
Akademie věd České republiky [Academy of Sciences of the Czech Republic], **KJB4031405** (2004-2006).
- J13.** Preisler, J. - Klepárník, K.
Integrovaná analýza genomu a proteomu terapeuticky významných bakteriofágů kombinací elektroforézy a hmotnostní spektrometrie.
[Integrated genome and proteome analysis of therapeutically important bacteriophages.]
Grantová agentura České republiky [Grant Agency of the Czech Republic], **GA203/03/0515** (2003-2005).
- J14.** Psota, V. - Bohačenko, I. - Chmelík, J.
Vliv distribuce velikosti škrobových zrn na technologickou kvalitu ječmene.
[The effect size distribution of starch granules on the technological quality of barley.]
Ministerstvo zemědělství České republiky [Ministry of Agriculture of the Czech Republic], **QD 1005** (2001-2005).

- J15.** Roth, M.
 Superkritická fluidní chromatografie jako zdroj termodynamických dat: od konvenčních systémů k novým systémům s iontovými kapalinami.
 [Supercritical fluid chromatography as a source of thermodynamic data: from conventional systems to neoteric systems with ionic liquids.]
 Grantová agentura České republiky [Grant Agency of the Czech Republic], **GA203/02/1093** (2002-2004).
- J16.** Roth, M.
 Termodynamické modely pro aplikace stlačených tekutin v analytických separacích.
 [Thermodynamic models for applications of compressed fluids in analytical separations.]
 Akademie věd České republiky [Academy of Sciences of the Czech Republic], **IAA4031301** (2003-2006).
- J17.** Rubínová, B. - Tlaskalová, H. - Chmelík, J.- Gabrovská, D. - Plicka, J.
 Analýza glutenu (lepku) a sledování kvality bezlepkových potravin a surovin.
 [Analysis of gluten and investigation of quality of gluten-free foods and raw materials.]
 Ministerstvo zemědělství České republiky [Ministry of Agriculture of the Czech Republic], **QD 1023** (2001-2005).
- J18.** Ulbrich, K. - Jungwirth, K. - Dobeš, J. - Frank, L. - Balík, K. - Chmelík, J. - Havlas, Z. - Šlotová, J. - Marek, M.V.
 Fyzika, chemie a informatika pro biologické, ekologické a lékařské aplikace.
 [Physics, chemistry and informatics for biological, ecological and medical applications.]
 Akademie věd České republiky [Academy of Sciences of the Czech Republic], **KSK4055109** (2001-2004).

- J19.** Večeřa, Z.
Charakterizace a zdroje atmosférických aerosolů obsahujících uhlík.
[Characterization and sources of carbonaceous atmospheric aerosols.]
Belgian Federal Office for Scientific, Technical and Cultural Affairs (OSTC), **EV/02/11A** and **BL/02/CR01** (2000-2005).
- J20.** Večeřa, Z. - Kubáň, V. - Janouš, D.
Emise biogenních sloučenin z *Picea abies* (L) Karst při dlouhodobém vlivu zvýšeného obsahu oxidu uhličitého.
[Emission of biogenic compounds from *Picea abies* (L) Karst under long-term increased amount of carbon dioxide.]
Grantová agentura České republiky [Grant Agency of the Czech Republic], **GA526/03/1182** (2003-2005).
- J21.** Vytřas, K. - Křivánková, L.
Vývoj nových postupů pro vysoce spolehlivou analytickou kontrolu technologie, materiálů, potravin a životního prostředí a pro lékařskou diagnostiku s využitím moderní instrumentace.
[Development of new processes for high reliable analytical control of technology, materials, food and environmental, and for medicine diagnostics using modern instrumentation.]
Grantová agentura České republiky [Grant Agency of the Czech Republic], **GA203/02/0023** (2002-2004).

AUTHOR INDEX

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