

**SEZNAM PRACÍ**

**LIST OF PAPERS**

**2008**

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In the List of Papers 2008 the papers are divided into the following sections:

- A** Original Papers and Reviews
- B** Books and Chapters in Books
- C** Lectures and Posters
- D** Research Reports
- E** Patents, Patent Applications
- F** Varia
- G** Theses
- H** Papers and Books in Press
- J** Grants

## **A. ORIGINAL PAPERS AND REVIEWS**

- A1.** Abele, S. - Nie, F. - Foret, F. - Paull, B. - Macka, M.  
UV-LED photopolymerised monoliths.  
*Analyst*, 133 [7] 864-866 (2008)
- A2.** Bobálová, J. - Šalplachta, J. - Chmelík, J.  
Investigation of protein composition of barley by gel electrophoresis and MALDI mass spectrometry with regard to the malting and brewing process.  
*Journal of the Institute of Brewing*, 114 [1] 22-26 (2008)
- A3.** Cabálková, J. - Bobálová, J.  
Separation of complex oligosaccharides from wort and beer using HPLC.  
*Chemické Listy*, 102 [S] s608-s609 (2008)
- A4.** Cabálková, J. - Příbyl, J. - Skládal, P. - Kulich, P. - Chmelík, J.  
Size, shape, and surface morphology of starch granules from Norway spruce needles revealed by transmission electron microscopy and atomic force microscopy: effect of elevated CO<sub>2</sub> concentration.  
*Tree Physiology*, 28 [-] 1593-1599 (2008)
- A5.** Čmelík, R. - Bobálová, J.  
Characterization of oligosaccharides using ESI-MS in presence of anions.  
*Chemické Listy*, 102 [S] s965-s966 (2008)
- A6.** Dyčka, F. - Laštovičková, M. - Bobálová, J.  
A new approach to protein enzymatic digestion for fast protein identification by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry.  
*Chemické Listy*, 102 [S] s967-s968 (2008)
- A7.** Gebauer, P. - Malá, Z. - Šlampová, A. - Boček, P.  
Regular properties of simple electrophoretic BGEs with multiprotic weak acids: Discovery of complex hybrid system boundaries.  
*Electrophoresis*, 29 [5] 1067-1076 (2008)
- A8.** Gong, X.Y. - Kubáň, P. - Scholer, A. - Hauser, P.C.  
Determination of gamma-hydroxybutyric acid in clinical samples using capillary electrophoresis with contactless conductivity detection.  
*Journal of Chromatography A*, 1213 [1-2] 100-104 (2008)

- A9.** Gregušová, M. - Dočekal, B. - Dočekalová, H.  
 Charakterizace sorpčních gelů pro použití v technice difuzního gradientu v tenkém filmu.  
*Chemické listy*, 102 [3] 213-217 (2008)
- A10.** Gregušová, M. - Dočekal, B. - Dočekalová, H.  
 New resin gel for diffusive gradients in thin film (DGT) technique.  
*Chemické Listy*, 102 [S] s373-s374 (2008)
- A11.** Hernández-Zavala, A. - Matoušek, T. - Drobná, Z. - Paul, D.S. - Walton, F. - Adair, B.M. - Dědina, J. - Thomas, D. J. - Stýblo, M.  
 Speciation analysis of arsenic in biological matrices by automated hydride generation-cryotrapping-atomic absorption spectrometry with multiple microflame quartz tube atomizer (multiatomizer).  
*Journal of Analytical Atomic Spectrometry*, 23 [3] 342-351 (2008)
- A12.** Hernández-Zavala, A. - Valenzuela, O.L. - Matoušek, T. - Drobná, Z. - Dědina, J. - Garcia-Vargas, G.G. - Thomas, D. J. - Del Razo, L.M. - Stýblo, M.  
 Speciation of arsenic in exfoliated urinary bladder epithelial cells from individuals exposed to arsenic in drinking water.  
*Environmental Health Perspectives*, 116 [12] 1656-1660 (2008)
- A13.** Hohnová, B. - Karásek, P. - Vespalcová, M.  
 Extraction and determination of flavonoids in plant materials.  
*Chemické Listy*, 102 [S] s651-s653 (2008)
- A14.** Hohnová, B. - Šťavíková, L. - Karásek, P.  
 Determination of anthocyanins in red grape skin by pressurized fluid extraction and HPLC.  
*Czech Journal of Food Science*, 26 [Special Issue] S39-S42 (2008)
- A15.** Holá, M. - Konečná, V. - Mikuška, P. - Kaiser, J. - Páleníková, K. - Průša, S. - Hanzlíková, R. - Kanický, V.  
 Study of aerosols generated by 213 nm laser ablation of cobalt-cemented hard metals.  
*Journal of Analytical Atomic Spectrometry*, 23 [10] 1341-1349 (2008)
- A16.** Karásek, P. - Planeta, J. - Roth, M.  
 Solubilities of triptycene, 9-phenylanthracene, 9,10-dimethylanthracene, and 2-methylanthracene in pressurized hot water at temperatures from 313 K to the melting point.  
*Journal of Chemical and Engineering Data*, 53 [1] 160-164 (2008)

- A17.** Karásek, P. - Planeta, J. - Roth, M.  
Simple first-order group contribution scheme for solubilities of solid polycyclic aromatic hydrocarbons and solid polycyclic aromatic heterocycles in pressurized hot water.  
*Industrial and Engineering Chemistry Research*, 47 [3] 620-626 (2008)
- A18.** Karásek, P. - Planeta, J. - Roth, M.  
Solubilities of adamantane and diamantane in pressurized hot water.  
*Journal of Chemical and Engineering Data*, 53 [2] 816-819 (2008)
- A19.** Korecká, L. - Jankovičová, B. - Křenková, J. - Hernychová, L. - Slováková, M. - Le-Nell, A. - Chmelík, J. - Foret, F. - Viovy, J.-L. - Bílková, Z.  
Bioaffinity magnetic reactor for peptide digestion followed by analysis using bottom-up shotgun proteomics strategy.  
*Journal of Separation Science*, 31 [3] 507-515 (2008)
- A20.** Kratzer, J. - Dědina, J.  
Stibine and bismuthine trapping in quartz tube atomizers for atomic absorption spectrometry - Method optimization and analytical applications.  
*Spectrochimica Acta B*, 63 [8] 843-849 (2008)
- A21.** Kubáň, P. - Hauser, P.C.  
A review of the recent achievements in capacitively coupled contactless conductivity detection.  
*Analytica Chimica Acta*, 607 [1] 15-29 (2008)
- A22.** Kubáň, P. - Kubáň, P. - Kubáň, V. - Hauser, P.C. - Boček, P.  
Capillary electrochromatography of inorganic cations in open tubular columns with a controllable capacity multilayered stationary phase architecture.  
*Journal of Chromatography A*, 1190 [1-2] 377-382 (2008)
- A23.** Kubáň, P. - Hauser, P.C.  
Evaluation of microchip capillary electrophoresis with external contactless conductivity detection for the determination of major inorganic ions and lithium in serum and urine samples.  
*Lab on a Chip*, 8 [11] 1829-1836 (2008)
- A24.** Laštovičková, M. - Bobálová, J.  
The proteomic analysis of barley albumins and globulins.  
*Chemické Listy*, 102 [S] s709-s711 (2008)

- A25.** Laštovičková, M. - Šopíková, M. - Bobálová, J.  
Comparative study of the protein composition induced by malting of two barley varieties.  
*Chemické Listy*, 102 [S] s712-s713 (2008)
- A26.** Le Nel, A. - Křenková, J. - Klepárník, K. - Smadja, C. - Taverna, M. - Viovy, J.-L. - Foret, F.  
On-chip tryptic digest with indirect coupling to ESI-MS using magnetic particles.  
*Electrophoresis*, 29 [24] 4944-4947 (2008)
- A27.** Matoušek, T. - Hernández-Zavala, A. - Svoboda, M. - Langrová, L. - Adair, B.M. - Drobná, Z. - Thomas, D. J. - Stýblo, M. - Dědina, J.  
Oxidation state specific generation of arsines from methylated arsenicals based on L-cysteine treatment in buffered media for speciation analysis by hydride generation-automated cryotrapping-GC-AAS with the multiatomizer.  
*Spectrochimica Acta B*, 63 [3] 396-406 (2008)
- A28.** Mazanec, K. - Bobálová, J.  
Monitoring of barley starch amylolysis by gravitational field flow fractionation and MALDI-TOF/TOF MS.  
*Chemické Listy*, 102 [S] s728-s729 (2008)
- A29.** Mikuška, P. - Motyka, K. - Večeřa, Z.  
Determination of nitrous acid in air using wet effluent diffusion denuder-FIA technique.  
*Talanta*, 77 [2] 635-641 (2008)
- A30.** Mládková, Z. - Pešková, K. - Dočekal, B. - Dočekalová, H. - Škarpa, P.  
Application of DGT method for assessment of availability of heavy metals to plants.  
*Chemické Listy*, 102 [S] s428-s429 (2008)
- A31.** Musil, S. - Matoušek, T.  
On-line pre-reduction of pentavalent arsenicals by thioglycolic acid for speciation analysis by selective hydride generation-cryotrapping-atomic absorption spectrometry.  
*Spectrochimica Acta B*, 63 [6] 685-691 (2008)

- A32.** Nováková, M. - Křivánková, L.  
Determination of ethylglucuronide in human serum by hyphenation of capillary isotachopheresis and zone electrophoresis.  
*Electrophoresis*, 29 [8] 1694-1700 (2008)
- A33.** Nováková, M. - Křivánková, L. - Skalická, I. - Bartoš, M. - Vytřas, K.  
ITP determination of potassium and ammonium in fertilizers and silage.  
*Chromatographia*, 67 [Suppl.] S63-S68 (2008)
- A34.** Pavelka, S. - Babický, A. - Vobecký, M.  
Simultaneous use of <sup>82</sup>Br and <sup>24</sup>Na radionuclides in the whole-body counting of animals by high-resolution gamma-ray spectrometry.  
*Journal of Radioanalytical and Nuclear Chemistry*, 278 [3] 571-574 (2008)
- A35.** Pavelka, S. - Vobecký, M. - Babický, A.  
Halogen speciation in the rat thyroid: Simultaneous determination of bromine and iodine by short-term INAA.  
*Journal of Radioanalytical and Nuclear Chemistry*, 278 [3] 575-579 (2008)
- A36.** Pouzar, M. - Krejčová, A. - Černohorský, T. - Pešková, K.  
Study of contamination sources in the process of cryogenic grinding.  
*Talanta*, 76 [2] 254-258 (2008)
- A37.** Procházková, B. - Šalplachta, J.  
The use of carrier ampholyte-free isoelectric focusing for proteomic analysis.  
*Chromatographia*, 67 [Suppl.] S55-S61 (2008)
- A38.** Šlais, K.  
Divergent flow isoelectric focusing.  
*Electrophoresis*, 29 [12] 2451-2457 (2008)
- A39.** Šlampová, A. - Boček, P.  
Statistical data processing of mobility curves of univalent weak bases.  
*Electrophoresis*, 29 [2] 538-541 (2008)
- A40.** Šlampová, A. - Boček, P.  
Statistical evaluation of mobility curves of univalent weak acids.  
*Electrophoresis*, 29 [5] 1196-1199 (2008)



- A41.** Šlampová, A. - Křivánková, L. - Gebauer, P. - Boček, P.  
Standard systems for measurement of pKs and ionic mobilities. 1.  
Univalent weak acids.  
*Journal of Chromatography A*, 1213 [1] 25-30 (2008)
- A42.** Šťastná, M. - Šlais, K.  
Single-input divergent flow IEF for preparative analysis of proteins.  
*Electrophoresis*, 29 [22] 4503-4507 (2008)
- A43.** Šťavíková, L. - Polovka, M. - Hohnová, B. - Zemanová, J.  
Multi-experimental characterization of grape skin extracts.  
*Czech Journal of Food Science*, 26 [Special Issue] S43-S48 (2008)
- A44.** Štosová, T. - Šebela, M. - Řehulka, P. - Šedo, O. - Havliš, J. - Zdráhal, Z.  
Evaluation of the possible proteomic application of trypsin from *Streptomyces griseus*.  
*Analytical Biochemistry*, 376 [1] 94-102 (2008)
- A45.** Teixidor, F. - Laromaine, A. - Kivekäs, R. - Sillanpää, R. - Viñas, C. - Vespalec, R. - Horáková, H.  
Synthesis, reactivity and complexation studies of N,S exo-heterodisubstituted o-carborane ligands. Carborane as a platform to produce the uncommon bidentate chelating (pyridine)N-C-C-C-S(H) motif.  
*Dalton Transactions*, – [3] 345-354 (2008)
- A46.** Tomáš, R. - Klepárník, K. - Foret, F.  
Multidimensional liquid phase separations for mass spectrometry.  
*Journal of Separation Science*, 31 [11] 1964-1979 (2008)
- A47.** Vadinská, M. - Bosáková, Z. - Tesařová, E. - Coufal, P. - Planeta, J.  
LC with a teicoplanin aglycone chiral sorbent for the separation of the enantiomers of non-steroidal anti-inflammatory drugs: an evaluation of chiral capillary columns.  
*Chromatographia*, 67 [Suppl.] S33-S40 (2008)
- A48.** Valeri, A.L. - Kremser, L. - Raggi, M. A. - Grüner, B. - Vespalec, R. - Kenndler, E.  
Capillary electrophoresis of boron cluster compounds in aqueous and nonaqueous solvents.  
*Electrophoresis*, 29 [8] 1658-1666 (2008)

- A49.** Večeřa, Z. - Mikuška, P. - Smolík, J. - Eleftheriadis, K. - Bryant, C. - Colbeck, I. - Lazaridis, M.  
Shipboard measurements of nitrogen dioxide, nitrous acid, nitric acid and ozone in the Eastern Mediterranean Sea.  
*Water, Air, & Soil Pollution: Focus*, Roč. 8 [1] 117-125 (2008)

## **B. BOOKS AND CHAPTERS IN BOOKS**

- B1.** Kubáň, P. - Hauser, P.C.  
Flow injection analysis - capillary electrophoresis.  
In: *Advances in Flow Injection Analysis and Related Techniques*, 54.  
Elsevier, 2008 - (Kolev, S.; McKelvie, I.) pp. 287-307.  
ISBN 978-0-444-53094-3 (Comprehensive Analytical Chemistry)

## C. LECTURES AND POSTERS

- C1.** Cabálková, J. - Čmelík, R. - Bobálová, J.  
Carbohydrate chemistry of congress wort, hopped wort and green beer.  
*XXI. biochemický sjezd. České Budějovice, 2008, p. 190.*  
[Biochemický sjezd /21./ 14.09.2008-17.09.2008, České Budějovice]
- C2.** Cabálková, J. - Čmelík, R. - Bobálová, J.  
Comparison of the different HPLC systems for characterization of wort and beer maltooligosaccharides.  
*New achievements in chromatography. Zagreb, 2008, p. 139. ISBN 978-953-6894-36-9.*  
[International Symposium on Separation Science /14./ 30.09.2008-03.10.2008, Primošten]
- C3.** Čejchanová, M. - Wranová, K. - Spěváčková, V. - Korunová, V. - Vobecký, M.  
Problematika rtuti a methylrtuti ve vlasech.  
[Determination of mercury and methylmercury in hair.]  
*Sborník konference Mikroelementy 2008. 2THETA, 2008.*  
[Mikroelementy 2008 /42./ Medlov (CZ), 02.09.2008-04.09.2008]
- C4.** Čmelík, R. - Cabálková, J. - Bobálová, J.  
Analysis of wort and beer carbohydrates using a combination of HPLC and mass spectrometry.  
*11th Bratislava Symposium on Saccharides. Bratislava, 2008, p. 54.*  
[Bratislava Symposium on Saccharides /11./ 21.09.2008-26.09.2008, Smolenice]
- C5.** Dědina, J.  
Generation of volatile compounds for atomic spectrometry with the special emphasis on collection approaches: Present state and perspectives.  
*ESAS '08. Weimar, 2008.*  
[European Symposium on Atomic Spectrometry: Electrothermal Atomization, Vaporization and Laser Sampling. 28.09.2008-01.10.2008, Weimar]
- C6.** Dědina, J. - Kratzer, J. - Selecká, A. - Řezáčová, O. - Svoboda, M.  
Comparison of tools for ultratrace analysis of hydride forming elements: atomic fluorescence versus collection in quartz atomizers for atomic absorption.

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Salvador, 2008, 077.

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- C7.** Del Favero, D. - Večeřa, Z. - Mikuška, P.  
Stanovení biogenně emitovaných sloučenin v lesních porostech  
pasivními vzorkovači.  
[Determination of biogenic volatile organic compounds in forest  
stands by means of sorbent passive samplers.]  
*Zborník konferencie Ochrana ovzdušia 2008.* 2008, pp. 162-164.  
ISBN 978-80-89275-14-4.  
[Ochrana ovzdušia 2008. Štrbské Pleso (SK), 26.11.2008-28.11.2008]
- C8.** Dočekal, B.  
Přímá analýza pevných vzorků atomovou absorpční spektrometrií s  
elektrotermickou atomizací.  
[Direct solid sampling electrothermal atomic absorption  
spectrometry.]  
*Setkání uživatelů atomových absorpčních spektrometrů a  
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[Setkání uživatelů atomových absorpčních spektrometrů a  
mikrovlenných rozkladných systémů dodaných firmu CHROMSPEC  
s.r.o. Brno (CZ), 15.04.2008-16.04.2008]
- C9.** Dočekal, B. - Dočekalová, H. - Gregušová, M.  
New resin gel for diffusive gradients in thin film (DGT) technique  
based on Spheron-Oxin ion-exchanger.  
*35th International Symposium of Environmental Analytical Chemistry.  
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[International Symposium of Environmental Analytical Chemistry  
/35./ 22.06.2008-26.06.2008, Gdańsk]
- C10.** Dočekal, B. - Dočekalová, H. - Mládková, Z. - Pešková, K.  
Effect of soil moisture content on the metal concentration measured by  
diffusive gradients in thin films technique (DGT).  
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[International Symposium of Environmental Analytical Chemistry  
/35./ 22.06.2008-26.06.2008, Gdańsk]

- C11.** Dočekal, B. - Krejčí, P.  
New observations in collection of hydride forming elements within electrothermal atomizers.  
*ESAS '08*. Weimar, 2008.  
[European Symposium on Atomic Spectrometry: Electrothermal Atomization, Vaporization and Laser Sampling. 28.09.2008-01.10.2008, Weimar]
- C12.** Dočekal, B. - Krejčí, P.  
New observations in collection of hydride forming elements within miniature electrothermal devices.  
*XIXth Slovak-Czech Spectroscopic Conference*. Bratislava, 2008, p. 36. ISBN 978-80-223-2557-8.  
[Slovak-Czech Spectroscopic Conference /19./ 12.10.2008-16.10.2008, Častá-Papiernička]
- C13.** Foret, F.  
Microfluidics and nanotechnology for high resolution bioanalysis.  
*Lab-on-a Chip World Congress. Event Proceedings*. 2008.  
[Lab-on-a Chip World Congress. Advances in Microarray Technology. Advances in Biodefense Technology. 07.05.2008-08.05.2008, Barcelona]
- C14.** Foret, F.  
Microfluidics and nanotechnology in bioanalytical instrumentation.  
*ITP2008. Book of abstracts*. 2008, p. 23.  
[International Symposium on Capillary Electroseparation Techniques /16./ 31.08.2008-04.09.2008, Catania]
- C15.** Foret, F.  
Miniaturization trends in bioanalysis.  
*BIOTronics 2008*. 2008, p. 21.  
[International Conference on Biosensors, Biochips, and Bioelectronic Devices. 08.10.2008-08.10.2008, Jeju]
- C16.** Foret, F.  
Technology Development: Microfluidics for Mass Spectrometry.  
*Analytical Labs for the 21st Century*. London, 2008.  
[Analytical Labs for the 21st Century. London (GB), 28.04.2008-29.04.2008]
- C17.** Foret, F. - Grym, J. - Tomáš, R. - Klepárník, K.  
Micro and mezzo scale analytical systems for mass spectrometry.

*HPLC2008 Kyoto*. Kyoto, 2008, p. 107.  
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**C18.** Foret, F. - Klepárník, K. - Křenková, J. - Grym, J. - Hezinová, V. - Kusý, P. - Smejkal, P.  
Miniaturization trends in bioanalysis.  
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**C19.** Grym, J. - Foret, F.  
Development of microfluidic pneumatic nebulizer for electrospray mass spectrometry.  
*CECE 2008. 5th international interdisciplinary meeting on bioanalysis*. Brno, 2008, p. 41. ISBN 978-80-254-3194-8.  
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**C20.** Grym, J. - Tomáš, R. - Otevřel, M. - Klepárník, K. - Foret, F.  
Development of microfluidics systems for multidimensional separations.  
*msb 2008. Book of Abstracts*. Berlin, 2008, p. 408.  
[International Symposium on MicroScale Bioseparations & Methods for Systems Biology /22./ 09.03.2008-13.03.2008, Berlin]

**C21.** Hezinová, V. - Čarnecká, M. - Haliénová, A. - Márová, I. - Klepárník, K. - Zdráhal, Z. - Foret, F.  
Comparative proteomic study of red yeast *Rhodotorula glutinis* cultivated under normal and stress condition.  
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**C22.** Hezinová, V. - Svobodová, I. - Klepárník, K.  
Physico-chemical properties and applications of highly fluorescent quantum dots.  
*Sborník příspěvků. VIII. Pracovní setkání fyzikálních chemiků a elektrochemiků*. Brno, 2008, pp. 31-32. ISBN 978-80-210-4525-5.  
[Pracovní setkání fyzikálních chemiků a elektrochemiků /8./ 04.02.2008-05.02.2008, Brno]

- C23.** Hezinová, V. - Svobodová, I. - Lišková, M. - Klepárník, K. - Foret, F.  
Preparation, physico-chemical properties and application in immunofluorescence analyses of CdTe quantum dots.  
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- C24.** Hezinová, V. - Svobodová, I. - Podešva, P. - Klepárník, K. - Foret, F.  
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*msb 2008. Book of Abstracts.* Berlin, 2008, p. 436.  
[International Symposium on MicroScale Bioseparations & Methods for Systems Biology /22./ 09.03.2008-13.03.2008, Berlin]
- C25.** Hohnová, B. - Šťavíková, L.  
Stanovení antokyanů ve slupkách červených hroznů pomocí extrakce za zvýšené teploty a tlaku a HPLC.  
[Determination of anthocyanins in red grape skin by pressurized fluid extraction and HPLC.]  
*Kvalita moravských a českých vín a jejich budoucnost.* 2008, p. 38. ISBN 978-80-7375-208-8.  
[Kvalita moravských a českých vín a jejich budoucnost. 11.09.2008-12.09.2008, Lednice]
- C26.** Hohnová, B. - Šťavíková, L. - Karásek, P.  
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*32nd International Symposium on Capillary Chromatography and 5th GCxGC Symposium.* 2008, p. 443.  
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- C27.** Holá, M. - Možná, V. - Kanický, V. - Mikuška, P.  
Study of aerosol particles produced by 213 nm laser ablation of different solid samples.  
*2008 Winter Conference on Plasma Spectrochemistry.* 2008, pp. 199-200.  
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- C28.** Holá, V. - Růžička, F. - Horáková, L. - Renata, R. - Horká, M.  
Biofilm infections of urinary tract.  
*XII. International Congress of Bacteriology and Applied Microbiology*. Istanbul, 2008, p. 232.  
[International Congress of Bacteriology and Applied Microbiology /12./ 05.08.2008-09.08.2008, Istanbul]
- C29.** Horáková, H. - Čáslavský, J. - Vespalec, R.  
Indirect photometric detection of boron cluster anions dissolved in methanol in capillary electrophoresis.  
*XIII IMEBORON*. 2008, P049.  
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- C30.** Horáková, H. - Kenndler, E. - Grüner, B. - Teixidor, F. - Vinas, C. - Vespalec, R.  
Survey of knowledge from the analytical research of boron cluster anions.  
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