



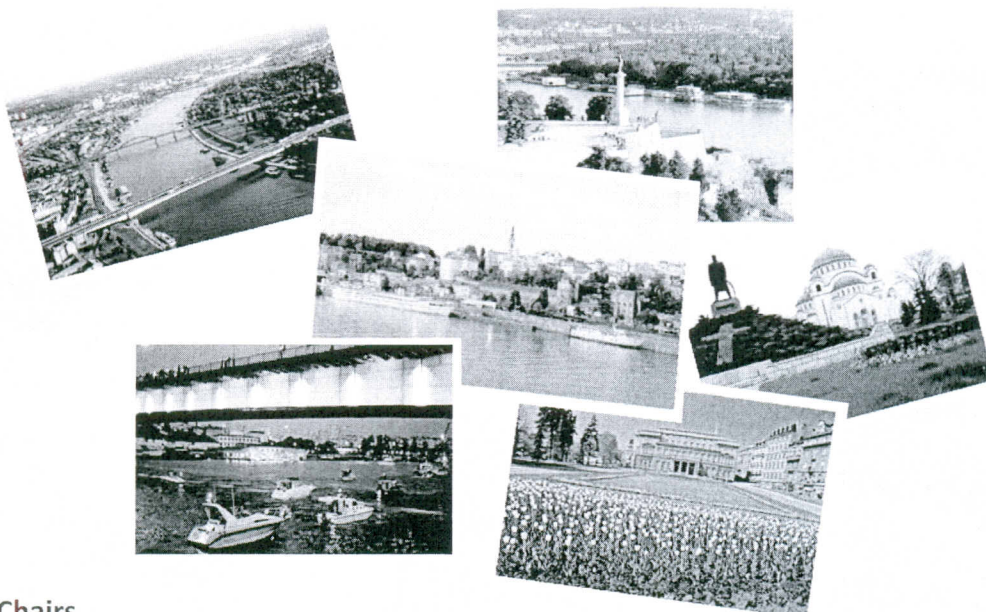
EUROanalysis 2011

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FINAL PROGRAM



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Division of Analytical Chemistry of the

European Association of Chemical and Molecular Sciences (EuCheMS)

Division of Analytical Chemistry of the Serbian Chemical Society (DAC-SCS)

In cooperation with

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Poster Session B

Tuesday, 13 September

- MS08** THE TREE EXUDATE CITRIC ACID AND ITS ABILITY TO CREATE COMPLEXES WITH CADMIUM(II)
J. Jaklová Dyrtrtová, M. Jakl, D. Schröder
- MS09** THE FUNGICIDE TEBUCONAZOLE COMPLEXES IN FOREST SOIL SOLUTION AFTER LIMING
R. Norková, J. Jaklová Dyrtrtová, M. Jakl, D. Schröder
- MS10** HIGH-RESOLUTION ACCURATE MASS MULTI-REFLECTING TIME-OF-FLIGHT MASS SPECTROMETRY UTILIZED TO FACILITATE METABOLITE IDENTIFICATION
K. Siek, T. Kovalczuk, J. Binkley, J. Patrick, J. A. Chakel
- MS11** CHARACTERIZATION OF POLY(ETHYLENE GLYCOL) INTERMEDIATES, END PRODUCTS AND DEGRADATION PRODUCTS BY PROTON TRANSFER REACTION Q-TOF MASS SPECTROMETRY AND ¹H-NMR SPECTROSCOPY
J. Malmstrøm
- MS12** HIGH PERFORMANCE LIQUID CHROMATOGRAPHY TANDEM MASS SPECTROMETRY DETERMINATION OF BENZO[A]PYRENE: INVESTIGATION OF THE EFFECTS OF THE ELECTRICAL PARAMETERS OF THE TRIPLE QUADRUPOLE ANALYZER
E. Mazzucco, F. Gosetti, E. Robotti, O. Zerbinati, E. Marengo
- MS13** IDENTIFICATION OF EARLY STEP UV/H₂O₂ DEGRADATION INTERMEDIATES OF ANTRAQUINONE DYE REACTIVE BLUE 19 BY DIRECT INTRODUCTION ELECTROSPRAY IONISATION MASS SPECTROMETRY
J. Mitrović, M. Radović, T. Andjelković, D. Bojić, B. Kocić, A. Bojić
- MS14** DEGRADATION OF HERBICIDE CLOMAZONE BY UV/H₂O₂ PROCESS
J. Mitrović, M. Radović, D. Bojić, D. Milenković, B. Kocić, A. Bojić
- MS15** DIRECT DERIVATIZATION AND RAPID GC-MS SCREENING OF NERVE AGENT MARKERS IN AQUEOUS SAMPLES
T. Gustavsson, J. Rattfelt-Nyholm, R. Subramaniam, C. Åstot, L. J. Calle Nilsson, A. Östin
- MS16** DIRECT ANALYSIS OF UV-LIGHT STABILIZERS IN POLYMERIC MATERIALS BY MASS SPECTROMETRY
M. Reisinger, M. Stiftinger, S. Beißmann, W. Buchberger, C. Klampfl
- MS17** COMPARATIVE ANALYSIS OF RHAMNOLIPIDS PRODUCED BY PSEUDOMONAS AERUGINOSA NCAIM (P) B 001380 ON DIFFERENT CARBON SOURCES BY HPLC-ESI-MS
M. Rikalović, M. M. Vrvic, G. Gojgic-Cvijovic, I. Karadzic

COMPARATIVE ANALYSIS OF RHAMNOLIPIDS PRODUCED BY
PSEUDOMONAS AERUGINOSA NCAIM (P) B 001380 ON DIFFERENT CARBON
SOURCES BY HPLC-ESI-MS

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Rhamnolipids are microbial secondary metabolites with tensioactive properties and numerous advantages over the chemical surfactants. Conditions for improved production of rhamnolipids has been reported for a few microbial genera. This study represents analysis of effect of carbon sources on composition of rhamnolipid mixture produced by a novel strain *P. aeruginosa* NCAIM (P) B 001380 isolated from high alkaline mineral cutting oil. Strain was grown on PPGAS medium supplemented with different carbon sources (2%) including waste matter (fryer sunflower oil and sunflower oil mill effluent). Isolated rhamnolipid mixtures were analyzed by HPLC ESI-MS. Results showed that retention times in condition of gradient elution with formic acid and acetonitrile, depend on lipidic component of rhamnolipid, not only on molecular weight. In all, or almost all, rhamnolipid mixtures were present mono-rhamno-di-lipidic congeners: Rha-C8-C8, Rha-C8-C10/Rha-C10-C8, Rha-C10-C10:1/Rha-C10:1-C10, Rha-C8-C12/Rha-C10-C10, Rha-C10-C12:1/Rha-C12:1-C10, Rha-C10-C12/Rha-C12-C10, Rha-C10-C14/Rha-C14-C10/Rha-C12-C12, Rha-C10-C14:1/Rha-C14:1-C10/Rha-C12-C12:1/Rha-C12:1-C12 and Rha-C10-C10-CH₃ and di-rhamno-di-lipidic congeners: Rha-Rha-C8-C10 (all sources except frying sunflower oil), Rha-Rha-C10-C10, Rha-Rha-C10-C12:1/Rha-Rha-C12:1-C10, Rha-Rha-C10-C12/Rha-Rha-C12-C10, Rha-Rha-C10-C14:1/Rha-Rha-C14:1-C10/Rha-Rha-C12-C12:1/Rha-Rha-C12:1-C12, Rha-Rha-C12-C12 and Rha-Rha-C10-C10-CH₃. Some rhamnolipidic congeners were detected only sporadically. Mono-rhamno-mono-lipidic congener Rha-C10 was detected on glucose and kerosene and Rha-C14:2 on sunflower oil mill effluent, whereas observed di-rhamno-di-lipidic congeners were: Rha-Rha-C10 (sunflower oil mill effluent and glucose), Rha-Rha-C8-C8 (sunflower mill effluent and glucose with addition of kerosene), Rha-Rha-C10-C10:1/Rha-Rha-C10:1-C10 and Rha-Rha-C14-C16/Rha-Rha-C16-C14 (frying sunflower oil and sunflower mill effluent), and Rha-Rha-C14-C14 (frying sunflower oil). This comparative analysis showed that carbon source had a considerable effect on composition of rhamnolipid mixtures. Differences in rhamnolipid profiles were reflected on mono- and di-rhamno-mono-lipidic and di-rhamno-di-lipidic congeners.