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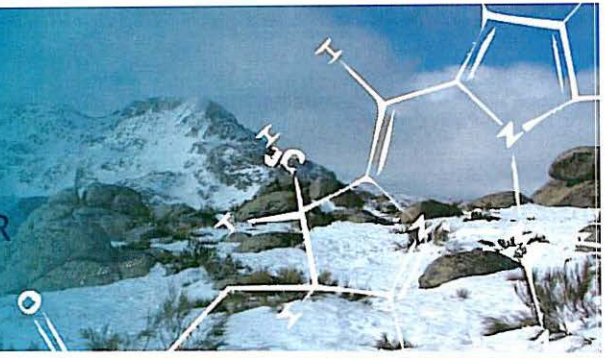

8º Encontro Nacional de CROMATOGRAFIA

2, 3 e 4 | Dezembro | 2013

Faculdade de Ciências da Saúde
Universidade da Beira Interior

LIVRO DE RESUMOS

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Segunda–feira, 2 de Dezembro

08:00-09:00	**Registo dos participantes**	
09:00-09:30	**Sessão de abertura**	
09:30-10:30	**Comunicação Plenária:** Ultra-High Performance Liquid Chromatography: Fundamentals, Developments and Applications in the Determination of Multirresidues of Pesticides - Isabel Jardim (Universidade Estadual de Campinas- IQM UNICAMP, Brasil)	
10:30-11:00	**Café e sessão de posters**	
11:00-11:30	**Comunicação Convidada:** Trends on automation of sample preparation based on bead injection technique - Marcela A. Segundo (FFUP)	
	Sessão Oral I	
11:30-11:50	High Performance Liquid Chromatography analysis of anthocyanins for varietal differentiation of *Vitisvinifera L.* red grapes – Fernanda Cosme (IBB/GCB-UTAD)	
11:50- 12:10	Latest technological advances in high resolution mass spectrometry: ORBITRAP mass spectrometry – Sílvia Maia (CEMUP)	
12:10-12:40	**Seminário Tecnocroma**	
12:40-14:00	**Almoço**	
14:00-14:30	**Comunicação Convidada:** Bidimensional Liquid Chromatography for Bioanalysis - Eugênia Queiroz (Universidade de S. Paulo - FFCRLP, Brasil)	
14:30-15:00	**Comunicação Convidada:** The role of chromatography in Forensic Toxicology - Mário Barroso (INMLCF)	
	Sessão Oral II	**Sessão Oral III**
15:00-15:20	Phenylethanoid glycosides in *Veronica urticifolia* extracts: characterization by HPLC-DAD-ESI/MS – João C. Barreira (CIMO-IPB)	Quantitative analysis of opicapone and its active metabolite in rat matrices by high-performance liquid chromatography coupled to a diode array detector – Daniela Gonçalves (FFUC)
15:20-15:40	Influência dos produtos da reação de Maillard isolados do malte por cromatografia de exclusão molecular na inibição da isomerização do xantohumol – Daniel O. Carvalho (REQUIMTE-UP)	Naproxen molecularly imprinted microspheres: two different approaches combining sol-gel and water-in-oil microemulsions – Mariana Ornelas (CIQ-UP)
15:40-16:00	Phenolic profile of wild fruits of *Rosa micrantha* ex Sm. and *Rosa canina* L. from Northeast Portugal – Lillian Barros (CIMO-IPB)	Encapsulação de Cafeína e Diclofenac em Carvão Activado e MOF ZIF-8 – Catarina João (IPB)
16:00-16:30	**Café e sessão de posters**	
	Sessão Oral IV	**Sessão Oral V**
16:30-16:50	Solving complex natural matrices with comprehensive two dimensional gás chromatography: *Sambucus nigra* L. volatile terpenoids characterization – Ângelo C. Salvador (QOPNA-UA)	Application of bar adsorptive micro-extraction (BAμE) for trace level analysis of testosterone and epitestosterone in urine samples for screening purposes in anti-doping control context - Samir M. Ahmad (FCUL)
16:50-17:10	Seeds and stones from *Olea europaea*: phenolic compounds and antioxidant capacity – Maria Rosário Bronze (FFUL)	Desenvolvimento de uma metodologia analítica para a determinação de novas substâncias psicoativas em amostras biológicas – Cláudia Margalho (INMLCF)
17:10-17:30	Influence of abiotic stress factors on rice volatile emission from Portuguese paddy fields – Eduardo P. Mateus (CENSE-UNL)	Chromatographic techniques for genotoxic impurities in pharmaceutical products – Sílvia Santos (Hovione)
17:30-18:30	**Reunião Grupo de Cromatografia SPQ**	
18:30-19:30	**Vinho de Honra**	

CO.03. Phenylethanoid glycosides in *Veronica urticifolia* extracts: characterization by HPLC-DAD-ESI/MS

João C.M. Barreira[1,2,3], Dejan Stojković[4], Zoran Maksimovic[5], Jelena Zivkovic[6], Celestino Santos-Buelga[2], Isabel C.F.R. Ferreira[1]*

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Veronica (Plantaginaceae) is a genus of 450 species found in temperate regions of both hemispheres. In this work, the aerial parts of *Veronica urticifolia* were collected during flowering period from Mountain Goč in central Serbia. Powdered samples (1 g) were extracted twice with methanol:water 80:20 (v/v). After removing solvents, the combined extracts were re-dissolved in 20% aqueous methanol, filtered through 0.22-μm disposable LC filter disks and analyzed by high performance liquid chromatography coupled to a diode array detector and electrospray-mass spectrometry (HPLC-DAD/ESI-MS). The phenolic compounds were characterized according to their UV and mass spectra and retention times. For the quantitative analysis, calibration curves of standard compounds were used.

Among other hydroxycinnamoyl derivatives, two phenylethanoid glycosides were characterized. Their peaks had spectra with maximal absorptions at 234 and 330 nm. The HPLC-DAD/ESI-MS gave *m/z* 623 as the molecular ion $[M-H]^-$. The MS^2 of the *m/z* 623 ions produced main fragment ions at *m/z* 461, resulting from the loss of the caffeoyl moieties ($[M-H-161]^-$), weak ions at *m/z* 315 (consistent with the further loss of rhamnose units) and ions at *m/z* 161 u and 135 u, corresponding to the caffeoyl residues. Based in these characteristics and by comparison with the UV spectra and MS^2 fragmentation pattern reported by Li et al. [1], these compounds were identified as isomers and tentatively assigned as acteoside (verbascoside) and isoacteoside. Acteoside was quantified in high amount (14.2 mg/g extract); thereby, *V. urticifolia* might be considered

as a potential natural source of this antimicrobial, antigenotoxic and antitumoral compound.

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[1] L Li, R Tsao, Z Liu, S Liu, R Yang, JC Young, H Zhu, Z Deng, M Xie and Z Fu. J Chromatogr A, 2005, 1063, 161-9.