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Euro Fed Lipid Headquarters, Frankfurt/DE:
Sevim Saritas, Isabella Gennrich

Monday, 21 October 2019

Morning

PALM OIL

Strategic Positioning for Sustainable Development

Room España 1

Chair(s): Norman Kamarudin

- 08:20 **KEYNOTE LECTURE**
Palm Oil, Commodity-led Growth: Recent Development and Challenges
 G.K.A. Parveez, Kajang/ML, N.A. Nik Ibrahim, R. Radzian, R.M. Mazlan, Kajang/ML
- 09:00 **Designing Oil Palm Ideotypes**
 A. Kushairi, Kajang, Selangor/ML, A.P Ghulam Kadir, M. Ong-Abdullah, Kajang, Selangor/ML
- 09:20 **Sustainable Palm Oil as Feedstock in Cosmetic and Personal Care**
 K. Lintner, Paris/FR, Z. Hasan, Kuala Lumpur/ML
- 09:40 **Recent Progress of Malaysian Palm Oil Industry in Addressing 3-MCPDE in Refined Palm Oil**
 A.H. Ahmad Tarmizi, Kajang/ML, R. Radzian, A. Kuntom, R.A. Abd Razak, M.R. Ramli, N. Halim, A.N. Abdul Hamid, Kajang/ML
- 10:00 Coffee Break and Expo Atrium

OLIVE OIL

Technological Innovations and Sustainability

Room España 1

Chair(s): Agnese Taticchi, Giuseppe Fregapane

- 10:30 **Strategies to Promote the Olive Oil Chain Sustainability**
 G. Squeo, Bari/IT, G. Difonzo, M. Calasso, R. Nasti, R. Silletti, C. Summo, V.M. Paradiso, A. Pasqualone, F. Caponio, Bari/IT
- 10:50 **Effect of Malaxation Temperature on Olive Oil Chemical and Sensory Profiles and their Evaluation using an Electronic Tongue**
 I.M.G. Marx, Porto/PT, N. Rodrigues, Bragança/PT, A.C.A. Veloso, Coimbra/PT, S. Casal, Porto/PT, J.A. Pereira, A.M.L. Peres, Bragança/PT
- 11:10 **Evaluation of the Effect on the Extra Virgin Olive Oil Quality of a New Continuous Mechanical Extraction System**
 A. Taticchi, Perugia/IT, S. Esposto, G. Veneziani, R. Selvaggini, B. Sordini, L. Daidone, A. Loreface, M. Servili, Perugia/IT
- 11:30 **New Trends in Virgin Olive Oil Extraction**
 G. Beltrán, Mengibar/ES
- 11:50 **Characterization of a Novel Oil Obtained through the Co-milling of Olives and Hemp Seeds**
 M. Tura, Bologna/IT, T. Gallina Toschi, Bologna/IT, E. Valli, Bologna/IT, S. Barbieri, Bologna/IT, M. Mandrioli, Bologna/IT, A. Bendini, Bologna/IT, R.C. Rubino, Bologna/IT
- 12:10 Lunchbreak and Expo Atrium

Effect of Malaxation Temperature on Olive Oil Chemical and Sensory Profiles and their Evaluation using an Electronic Tongue

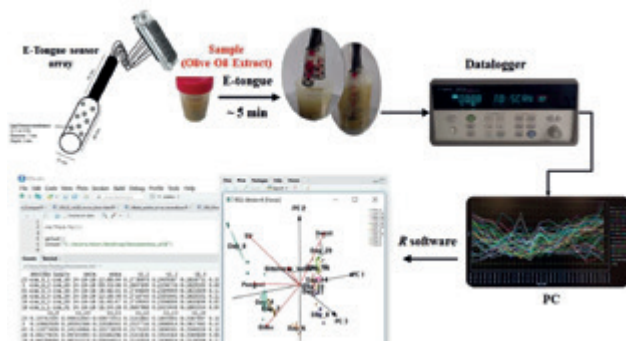
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Olive oil is highly appreciated due to its nutritional and organoleptic characteristics. Olive oils rich in bioactive compounds can be obtained by optimizing the time and temperature of the malaxation process. In this sense, this study aimed investigating the effect of the malaxation temperature (22 to 34°C) on the olive oil's physicochemical and sensory quality and, in more detail, on the phenolic profile. So, virgin olive oils were produced (November 2018), using olives from cv. Cobrançosa. Furthermore, the possibility of using an electronic tongue, i.e., a multisensor potentiometric device, comprising non-specific lipid polymeric with cross-sensitivity sensor membranes, to monitor the malaxation temperature influence on the olive oil's quality and phenolic composition, was evaluated. For that, multivariate statistical tools were developed for discriminating the olive oils according to the malaxation conditions as well as to predict some key quality parameters, including the extinction coefficients (K_{232} , K_{268} and $|\Delta K|$), free acidity, oxidative stability, peroxide value, bitterness index, total phenols, phenolic composition and gustatory-retronasal positive attributes. The study aims to determine the best malaxation temperature as well as to assess the versatility of the electronic tongue as a single-run, fast and cost-effective analytical device for olive oils quality evaluation.



Caption 1: Electronic Tongue Sensor Device Working Principle

Acknowledgments: This work was financially supported by Associate Laboratory LSRE-LCM - UID/EQU/50020/2019, strategic funding UID/BIO/04469/2019-CEB and BioTecNorte operation (NORTE-01-0145-FEDER-000004), strategic project PEst-OE/AGR/UI0690/2014-CIMO and by UID/QUI/50006/2019 funded by FCT/MCTES (PIDDAC) through national funds. I.M.G. Marx would also like to acknowledge FCT/MCTES for the Ph.D. grant number SFRH/BD/137283/2018.