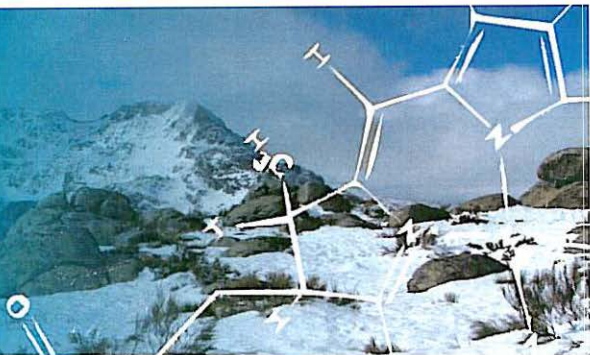




UNIVERSIDADE DA BEIRA INTERIOR
Covilhã | Portugal



8º Encontro Nacional de CROMATOGRAFIA

2, 3 e 4 | Dezembro | 2013

Faculdade de Ciências da Saúde
Universidade da Beira Interior

LIVRO DE RESUMOS



Centro de Investigação em Ciências da Saúde
Health Sciences Research Centre



UBI
Covilhã
Portugal



SOCIEDADE
PORTUGUESA
DE QUÍMICA

Título:

8º Encontro Nacional de Cromatografia

Coordenação:

J. A. Queiroz, E. Gallardo

Editor:

Sociedade Portuguesa de Química

Edição e Execução:

Faculdade de Ciências da Saúde
Universidade da Beira Interior

Impressão:

Serviços Gráficos da
Universidade da Beira Interior

Tiragem:

230 Exemplares

ISBN:

978-989-98541-1-6

P.016. Tocopherols and fatty acids profile of Spanish clementins

Patricia Morales^{1,2}, Lillian Barros¹, Ângela Fernandes¹, Montaña Cámara², Isabel C.F.R. Ferreira^{1*}

¹*Centro de Investigação de Montanha (CIMO), ESA, Instituto Politécnico de Bragança, Portugal*

²*Dpto. Nutrición y Bromatología II. Facultad de Farmacia Universidad Complutense de Madrid, Spain*

**iferreira@ipb.pt*

Citrus fruits consumption, and particularly clementins, is important in health promotion mainly due to the presence of numerous bioactive and functional compounds such as vitamin C (mainly as ascorbic acid), carotenoids and fiber [1]. Related to lipid fraction, tocopherols and fatty acids stand out as interesting bioactive compounds involved in lipid peroxidation inhibition process. The peel and pulp of three varieties of clementines (Basol, Clemenrubi and Clemenson) at commercial ripe stage, cultivated in Valencia (East of Spain), have been analyzed for tocopherols and fatty acids. Vitamin E (tocopherols) profile and content was analyzed by HPLC-FL and fatty acids by GC-FID [2-3]. Results obtained showed that clementine's peels can be considered as a good source of tocopherols, due its high total tocopherols content (19.66 mg/100 g dw, in Clemenson variety), mainly as α -tocopherol (19.15 mg/100 g dw), as well as a good source of linoleic acid (LA, C18:2n6) with 44% in Clemenrubi variety. On the other hand, clementine's pulp presented a high percentage of PUFA (around 48-52%), in special α -linolenic acid (ALA, C18:3n3) with 29.58% (in Clemenson), and SFA (between 39-51%) mainly palmitic acid (PA, C16:0 with 29-33%). However, in fruit pulp samples the tocopherols content were considerable lower (1.04-1.35 mg/100g dw, in Clemenson and Basol respectively) than in peels.

Acknowledgments

FCT (CIMO strategic project PEst-OE/AGR/UI0690/2011 and L. Barros contract) and proyecto OTRI UCM- ANECOOP S. Coop. (322-2012), for financial support.

[1] L Cebadera-Miranda, P Morales, V Fernández-Ruiz, MC Sánchez-Mata, A Del Pino, and M Cámara, ACTAS SECH, C417.

[2] P Morales, AM Carvalho, MC Sánchez-Mata, M Cámara, M Molina and ICFR Ferreira, Genet Resour and Crop Evol, 2012, 59 (5), 851-863.

[3] P Morales, ICFR Ferreira, AM Carvalho, MC Sánchez-Mata, M Cámara and J Tardío, Science of Food and Agriculture, 18 (3), 281 - 290.