



15th Weurman Flavour Research Symposium
18–22 September 2017 • Graz University of Technology • Austria

Book of Abstracts

15th Weurman Flavour Research Symposium
18-22 September 2017
Graz, Austria
www.weurman2017.at

15th Weurman Flavour Research Symposium

Book of Abstracts



Schlossberg Uhrturm © Graz Tourismus - Harry Schiffer

Graz University of Technology
Austria

organised by



Impressum

15th Weurman Flavour Research Symposium

Editors

Barbara Siegmund

Helmar Wiltsche

Barbara Pöllinger-Zierler

Erich Leitner

Graz University of Technology

Institute of Analytical Chemistry and Food Chemistry

Stremayrgasse 9/II

8010 Graz, Austria



Graz University of Technology

© 2017 Verlag der Technischen Universität Graz

www.ub.tugraz.at/Verlag

ISBN print 978-3-85125-549-2

ISBN e-book 978-3-85125-550-8

DOI 10.3217/978-3-85125-549-2



This work is licensed under a Creative Commons Attribution 4.0 International License
(<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Organisers

Graz University of Technology
Institute of Analytical Chemistry and Food Chemistry
Stremayrgasse 9/II
8010 Graz, Austria

Conference correspondence

Barbara Siegmund, Ass. Prof. Dr.
Email: weurman@tugraz.at
Phone: +43-316-873-32506

Convention Centre

Graz University of Technology
Old Campus
Rechbauerstraße 12
A8010 Graz, Austria

Organising Committee

Erich Leitner
Eveline Maier
Barbara Pöllinger-Zierler
Barbara Siegmund
Iris Tauber
Iris Weiland
Helmar Wiltsche
Elisabeth Wrana

Scientific Committee

Klaus Dürschmid (University of Natural Resources and Life Sciences, Vienna)
Dietmar Krautwurst(German Research Centre for Food Chemistry, Freising)
Erich Leitner (Graz University of Technology)
Christian Lindinger (Ionicon)
Jan Petka (Austria Juice)
Harald Pichler (Graz University of Technology)
Barbara Siegmund (Graz University of Technology)
Veronika Somoza (University of Vienna)

[P 130] Differentiation of less frequent red grape *Vitis vinifera* varieties by characterization of the aroma precursors

Arrieta-Garay Y¹, Boido E², Fariña L², Moser S³, Carrau F², Dellacassa E¹

1) Facultad de Química-UdelaR, Laboratorio de Biotecnología de Aromas-DQO, Montevideo, Uruguay

2) Facultad de Química-UdelaR, Área de Enología y Biotecnología de las Fermentaciones, Montevideo, Uruguay

3) Fondazione E. Mach, Centro Trasferimento Tecnologico, San Michele all Adige, Italia

edellac@fq.edu.uy

Glycosydated volatile organic compounds are vital to wine quality, determining their aroma and varietal characteristics. Which are present, and in what quantity, depends on the cultivar, the situation and soil of the vineyard, weather and cultivation methods. In this work, the characterization of non-aromatic grape *Vitis vinifera* red varieties (Marselan, Arinarnoa, Ancellota, Caladoc, Egidola and Lacryma Christi) grown in different areas of Uruguay is shown. Sample preparation is a crucial step in the determination of volatile compounds; in an attempt to improve the analytical difficulties on the isolation of the aromatic precursors from these varieties, an optimized procedure using ENV+ cartridge as an alternative to the traditional method with Amberlite XAD-2 resin is proposed. *Vitis vinifera* cv. Arinarnoa was used in order to evaluate the precision and reproducibility of the method. The glycosidic extracts were submitted to enzymatic hydrolysis, and the released aroma compounds were extracted by Solid-Phase Extraction and analyzed by GC-MS. The method proposed seems to be suitable and allows isolating the low concentration compounds with good reproducibility. Among the volatile compounds determined in these varieties we can find C6 alcohols, norisoprenoids (3-hydroxy- β -damascone, 3-oxo- α -ionol, vomifoliol, 4-oxo-7,8-dihydro- α -ionol), volatile phenols (guaiacol, 4-vinyl-guaiacol), vanillins, and others. Results contributed to the valorization of each grape variety through its aromatic potential.