

# Curriculum Vitae

## Personal information

First name / Surname **Franco Biasioli**



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Nationality Italian

Date of birth 11 July 1964

Place of birth Trento – Italy

Gender Male

Job applied for in ottemperanza agli obblighi di pubblicazione sul portale Amministrazione trasparente dei diversi elementi collegati al personale e, nello specifico, alle posizioni organizzative

## Brief career resume and contribution to the field<sup>a</sup>

I am qualified as a full professor in analytical chemistry and hold a laurea and a PhD in Physics. After my initial training in theoretical physics I moved to computational and experimental physics and data analysis for my PhD and, later on, to mass spectrometry and analytical chemistry in general. To date I have led a successful career as an expert in direct injection mass spectrometry, co-authoring more than 190 papers in ISI journals (H-index = 34) and as co-founder of an innovative start-up company (3slab s.r.l) which has currently been running for more than 4 years.

My career has been built around integrating mass spectrometry, on one side, with fundamental and technical developments and, on the other, with advanced data analysis and data mining. I initially began with projects related to ion and electron/positron optics, mass spectrometry and spectroscopy. In particular, I was involved in photo-fragmentation and photo-ionisation studies on molecular beams, tandem mass spectrometric investigations of surface induced fragmentation of molecules and clusters and spectroscopic measurement of VOCs (Volatile Organic Compounds) emitted by plants.

In 2000 I joined the Istituto Agrario di S. Michele all'Adige-Italy (now Fondazione Edmund Mach, FEM). In my role at FEM I worked to develop Proton Transfer Reaction Mass Spectrometry (only proposed in 1998) from a rather immature technology to make it the key element of a fully automated high-throughput facility for the analysis of volatile organic compounds. This technology enabled the rapid and high-sensitivity analysis of VOCs with improved specificity and sensitivity. The key to the success of this facility has been my ability to marry, in the stimulating applicative context of Fondazione Edmund Mach, my understanding of mass spectrometry with my expertise in data analysis.

This research has led to an improved understanding of flavour and flavour-texture interactions across a wide range of agricultural and food products, from apples to cereal bars, from coffee to dairy products. I have built local, national and international collaborations that have enabled me to extend my research area both in fundamental issues as well in many different applicative fields as i) monitoring of fermentation processes in beer, bread and yogurt, ii) breath analysis, iii) waste management and biofuel production and iv) linking food volatilome with genomic to assist breeding programs. Multinational companies (illycaffè, Ferrero) have recognised my expertise and usefulness of my research and have commissioned me undertake research projects on their behalf.

<sup>a</sup> Throughout the CV, superscript numbers refer to my publication list (ISI papers) starting at page 9.

## Current position

Dates	May 2000 onwards
Occupation or position held	Permanent position as Senior Researcher (Researcher before 2010, Technologist before 16 <sup>th</sup> March 2008). January 2011 – January 2016: Head of the Volatile Compound Facility.
Main activities and responsibilities	Agro-industrial applications of real time volatile organic compounds detection by direct injection mass spectrometry. Statistical and data mining methods for sensory and spectrometric data.
Name and address of employer	FEM - Edmund Mach Foundation (IASMA – Istituto Agrario di S. Michele a/A before January 2008). Via E. Mach, 1, 38010 - S. Michele a/A, TN, Italy.

## Education and qualifications

Title of qualification awarded	Certified professional mycologist (n. 506 TN) according to DPR n. 376 (14.7.95)
Title of qualification awarded	Italian national qualification as assistant professor and as full professor in analytical chemistry (Settore concorsuale 03/A1).
Title of qualification awarded	PhD in Physics
Principal subjects/occupational skills covered	Thesis title: "Multivariate analysis of PTR-MS data: agroindustrial applications".
Name and type of organisation providing education and training	University of Innsbruck – Institut für Ionenphysik – Technikerstr. 25, 6020, Innsbruck. Thesis advisor: Prof. T. D. Märk
Title of qualification awarded	Qualification as teacher (mathematics and physics) for Italian high schools and junior high schools.
Name and type of organisation providing education and training	Local education intendency of the provinces of Bolzano and of Trento
Title of qualification awarded	Laurea (degree) in Physics
Principal subjects/occupational skills covered	Thesis title: "Data analysis for resonant gravitational wave antennas: the determination of the arrival time".
Name and type of organisation providing education and training	University of Trento, Via Sommarive, 38100 Povo di Trento, Thesis advisor: Prof. S. Vitale.

## Scientific/technical career

Dates	October 1999 – April 2000
Occupation or position held	Research fellow in the frame of the PAT-CNR project "Monitoring of volatile organic compounds at very high sensitivity"
Main activities and responsibilities	Investigation of agro-industrial issues by proton transfer reaction-mass spectrometry.
Name and address of employer	CeFSA-CNR (Trento-Italy), via Sommarive, 18, 38100 – Povo di Trento, TN, Italy. Reference: dr. S. Iannotta
Dates	March 1997– September 1999
Occupation or position held	PhD student
Main activities and responsibilities	Tandem mass spectrometric (EB and TOF) investigation of fullerenes and other clusters: cluster production, cluster selection, surface induced dissociation. Agro-industrial applications of proton transfer reaction-mass spectrometry.
Name and address of employer	University of Innsbruck – Institut für Ionenphysik – Technikerstr, 25, 6020, Innsbruck. Reference: Prof. T.D. Märk
Dates	January 1995– February 1997
Occupation or position held	Scholarship of the Municipality of Trento
Main activities and responsibilities	Mass spectrometric investigation (time of flight) of photoionisation and photofragmentation processes in molecular beams and application of photoacoustic techniques to agro-industrial issues.

Name and address of employer	CeFSA-CNR (Trento-Italy), via Sommarive, 18, 38100 – Povo di Trento, TN, Italy. Reference: dr. S. Iannotta.
Dates	January 1994 – December 1994
Occupation or position held	R&D project manager
Main activities and responsibilities	Production and development of drinking water treatment systems for domestic plants.
Name and address of employer	METALIFE srl, Lamar di Gardolo, Trento, Italy. Reference: A. Spagnolli.
Dates	October 1993 – December 1993
Occupation or position held	Scholarship in the frame of a collaboration between Universität der Bundeswehr München and Università degli Studi di Trento (EU BRITE/EURAM)
Main activities and responsibilities	Test of a positron source and of a drift tube for a scanning positron microscope.
Name and address of employer	University of Trento, Via Sommarive, 38100 Povo di Trento, Reference: Prof. A. Zecca.

## Research grants and commissioned research

Acronym/Title	Qualifrape/"Il miglioramento della qualità dei frutti di fragola, melo, e pesco-nettarina nella filiera produttiva: caratterizzazione e determinazione di parametri oggettivi di valutazione, loro monitoraggio nel processo produttivo-commerciale e correlazione con gli stimoli sensoriali del consumatore" (Improving the quality of strawberry, apple and peach-nectarine in the production chain: characterization and determination of objective parameters, their monitoring in the production-commercial process and correlation with sensory stimuli and consumer choice)
Dates	2002-2005
Agency/ Total budget	MIUR-MIPAF/1050 K€
My role	WP leader
My budget	70K€
Acronym/Title	VEGA/ "Valorizzazione energetica di biogas da digestione anaerobica tramite fuel cell" (Energy exploitation of biogas from anaerobic digestion by fuel cell)
Dates	2012 – 2014
Agency/ Total budget	FESR 2007-2013/ 106K€
My role	Partner
My budget	15K€
Acronym/Title	Illy "Caratterizzazione rapida in-vivo e in-vitro dell'aroma del caffè tramite spettrometria di massa per iniezione diretta" (Rapid in-vivo and in-vitro characterisation of coffee aroma by direct injection mass spectrometry)
Dates	2012 – 2015
Customer/ Total budget	Private company/ 40 K€
My role	Coordinator
My budget	40 K€
Acronym/Title	VEGA/ "Valorizzazione energetica di biogas da digestione anaerobica tramite fuel cell" (Energy exploitation of biogas from anaerobic digestion by fuel cell)
Dates	2012 – 2014
Agency/ Total budget	FESR 2007-2013/ 106K€
My role	Partner
My budget	15K€
Acronym/Title	KraKra/Real-time monitoring of volatile release from instant coffee
Dates	2014

Customer/ Total budget	Private company/ 15K€
My role	Coordinator
My budget	15 K€
Acronym/Title	FastMalo/ Rapid Phenotyping of Malolactic Fermentation
Dates	2014
Customer/ Total budget	Private company / 15K€
My role	Coordinator
My budget	15 K€
Acronym/Title	INFRANET/"INcreasing ThRoughput and ANalytical Efficency of direct injection mass spectrometry for agroindustrial applications",
Dates	2016-2019
Sponsor/ Total budget	Private company /37K€; FEM/37K€
My role	Coordinator
My budget	74K€
Acronym/Title	PIMMS/ "Proton Ionization Molecular Mass Spectrometry"
Dates	2015 – 2018
Agency/ Total budget	EU-FP ITN / 3000K€
My role	WP leader
My budget	244K€
Acronym/Title	Illy2/ "Caratterizzazione rapida in-vivo e in-vitro dell'aroma del caffè tramite spettrometria di massa per iniezione diretta" (Rapid in-vivo and in-vitro characterisation of coffee aroma by direct injection mass spectrometry)
Dates	2015 – 2018
Customer/Total budget	Private company / 50 K€
My role	Coordinator
My budget	50 K€
Acronym/Title	OVOC/ Leveraging the antioxidant role of volatile isoprenoids for improving grapevine resistance to ozone and temperature stress
Dates	2015-2018
Agency/ Total budget	EU H2020 IF/ 244 K€
My role	Scientific reference person for FEM
My budget	-
Acronym/Title	Giubelle/"Device odor testing"
Dates	2017
Customer/ Total budget	Private company / 2.4 K€
My role	Coordinator
My budget	2.4 K€
Acronym/Title	FerMiCOH "Identificazione di modelli predittivi della qualità sensoriale di materie prime per l'industria alimentare basati sull'analisi rapida della frazione volatile tramite PTRMS" (Identification of models to predict the sensory quality of agroindustrial raw materials based on the rapid analysis of volatile compounds by PTR-MS)
Dates	2017-2019
Customer/Total budget	Private company/80 K€
My role	Coordinator
My budget	80K€
Acronym/Title	LEIDE: Studio emissioni volatili da mela e piccoli frutti

Dates	2018
Customer/Total budget	Private company /10K€
My role	Coordinator
My budget	10K€
Acronym/Title	CoVoPe Composti Volatili Pesce
Dates	2018
Customer/Total budget	Private company /3.5K€
My role	Coordinator
My budget	3.5K€
Acronym/Title	FerMiCOH 2 "Identificazione di modelli predittivi della qualità sensoriale di materie prime per l'industria alimentare basati sull'analisi rapida della frazione volatile tramite PTRMS" (Identification of models to predict the sensory quality of agroindustrial raw materials based on the rapid analysis of volatile compounds by PTR-MS)
Dates	2019-2021
Customer/Total budget	Private company/ 80 K€
My role	Coordinator
My budget	80K€
Acronym/Title	FENPOP "Fenotipizzazione di grandi popolazioni di frutta"
Dates	2019-2020
Customer/Total budget	Private company/ 70 K€
My role	Coordinator
My budget	70K€

**Other projects** I collaborated to the drafting and/or realisation of several other approved projects for different agencies and private companies in which I did not have an assigned budget. My role was to support the activity by volatile compounds analysis or by statistical analysis and data mining.

Project acronym	Agency	Principal investigator	Years	My role
AGRIIND2	PAT-CNR	F. MATTIVI	2001/04	Partner
MIROP	PAT	G. VERSINI	2001/05	Partner
RASO	PAT	S. IANNOTTA	2002/06	Partner
FORMA	PAT	G. DEROS	2002/06	Partner
SAMPPA	PAT	F. GASPERI	2004/06	Partner
INTERBERRY	PAT	L. GIONGO	2004/06	Partner
TRENTINGRANA	PAT	G. DEROS	2007/10	Partner
PARMALT	Private company	F. GASPERI	2011	Partner
DIAL	Private company	F. GASPERI	2010/11	Partner
MANVIP	PAR-UR	V. VELIKOVA	2012/15	Partner

## Invited papers, lectures and seminars

1. "Coffee olfactory stimuli investigated by time-resolved sensory and instrumental methods". Invited talk. ECRO annual meeting. Trieste, Italy. September 11-14, 2019
2. "Capturing food volatilome by direct injection mass spectrometry". Invited talk. Electron and Ion Symposium 2019. University of Innsbruck. May 10-11, 2019
3. "High-throughput screening of food volatilome by PTR-ToF-MS". Invited talk. Interactive symposium on Real-time Flavour Release Analysis with PTR-(TOF)-MS. Wageningen University and Research. October 2, 2017.

4. "Food volatilomics by direct injection mass spectrometry: an applicative perspective". Invited lecture. 1st SCIMS First International Conference on Soft Chemical Ionisation Mass Spectrometry and Applications to Trace Gas Analysis. Dornbirn, Austria. September 18-20, 2017.
5. "L'analisi dei composti volatili tramite spettrometria di massa per iniezione diretta applicazione recenti e prospettive". Invited lecture. La spettrometria di massa nel Triveneto. IZS delle Venezie. Legnaro (PD), Italy. October 25, 2016
6. "When time of flight mass analysers meet Proton Transfer Reaction Mass Spectrometry: an efficient tool for food Volatilomics". Invited lecture. Il ToF compie 70 anni. Università degli Studi di Milano. December 1, 2016
7. "Volatilomics by direct injection mass spectrometry". Invited lecture. Food Metabolomics. Max Rubner Conference. Karlsruhe, Germany, October 10-12, 2016
8. "Proton Transfer Reaction Mass Spectrometry in food science and technology: from sensory to omics". Invited seminar. Soremartec/Ferrero. Alba. Italy. July 12, 2016
9. "Tecnologie per la misura dei composti volatili: viaggio attorno al profumo della mela... e del Melo". Invited talk at the workshop "Odori e sapori: un viaggio sensoriale attraverso i prodotti alimentari" in the frame of MILANO EXPO 2015. Milano, 26 September 2015
10. "10 years PTR-MS at FEM". Invited opening keynote lecture at the 6th International PTR-MS Conference 2013, Universitätszentrum Obergurgl, Obergurgl – Austria. 3rd February - 8th February 2013.
11. May 6th 2010. Invitation to submit two contributions for the special issue of Trends in Analytical Chemistry on "Analysis of Biogenic Volatile Organic Compounds (BVOC)" edited by Jo Dewulf and Herman Van Langenhove.
12. Some aspects of the role of VOCs in food science and technology. Invited opening talk. Gordon Research Conference. Biogenic Hydrocarbons & the Atmosphere. Les Diablerets Conference Center. Les Diablerets, Switzerland. 23-28 May 2010.
13. PTR-MS in food science and technology: new perspectives from the TOF version. Invited contribution. 1st MS Food Day. Parma. 2.3 December 2009
14. PTR-MS in food science and technology: a review. Invited keynote talk at the 3rd International Conference on proton transfer reaction mass spectrometry: Obergurgl, Austria, January 27-February 01 2007
15. Classification of strawberry cultivars by PTR-MS fingerprinting: from standard multivariate analysis to innovative data mining techniques. Invited talk. XV Symposium on Atomic and surface physics and related topics: Obergurgl, Austria, 4-9 febbraio 2006
16. PTR-MS in agroindustrial applications: a methodological perspective. Invited talk at the 2nd International conference on Proton transfer reaction mass spectrometry and its applications: Obergurgl, Austria, January 29-February 3, 2005
17. Application of PTR-MS in food science and technology. Workshop on "Laser spectroscopy for trace gas detection". Centro Congressi Panorama. Sardinia di Trento, Italy, 18-20 February 2004
18. Discriminant analysis on PTR-MS data for agroindustrial applications. 1st International conference on Proton transfer reaction mass spectrometry and its applications. Igl (IBK) - Austria, 18-23 January 2003
19. Studio delle correlazioni tra descrittori sensoriali olfattogustativi e l'analisi PTR-MS della componente volatile. Primo congresso nazionale SISS. Roma, 13-14 November 2003

## Teaching and tutoring

1. "Capturing food volatile by direct injection mass spectrometry". Opening Lecture, Faculty of Agriculture, Food and Environmental Sciences, Ph.D. In Agro-Food System, Agrisystem Welcome Day, Piacenza, Italy, 18 November 2019

2. Non-invasive high-throughput food volatilomics by direct injection mass spectrometry: profiling and bioprocess monitoring". Invited seminar. Barilla G.R. F.Ili SpA. Research, Development & Quality. January 23, 2019
3. "Metodi di spettrometria di massa rapidi e diretti per il latte e derivati: fra analisi sensoriale e omiche". Invited seminar. Chiusura Master Latte 2018. Centro Ricerche P. Ferrero. Alba, Italy. : November 21, 2018
4. "Proton Transfer Reaction Mass Spectrometry (PTR-MS) in food science and technology: past, present e and future". Invited seminar. Università di Roma Tor Vergata. Dipartimento di ingegneria elettronica. October 23, 2017
5. "Proton Transfer Reaction Mass Spectrometry in food science and technology: from sensory to omics. Part 1". Lessons at the Institute of Analytical Chemistry and Radiochemistry of the University of Innsbruck . Innsbruck, 21 April 2016
6. "Proton Transfer Reaction Mass Spectrometry in food science and technology: from sensory to omics. Part 2". Lessons at the Institute of Analytical Chemistry and Radiochemistry of the University of Innsbruck . Innsbruck, 9 July 2016
7. Selected by IVALSA-CNR Institute for the 8-hour course: "Measuring odours: analytical instrumentation". Catania (CT), 29-30 Juny 2015
8. Two- hour seminar on invitation of the association MicroBio4Life and of the spin-off Promis Biotech in the frame of 'Laboratori dal Basso' (Regione Puglia). Università di Foggia, 12 Giugno 2013.
9. Statistical analysis of sensory data: discriminant methods. Seminar (8 hours) in the frame of the sensory analysis course of the University of Trento, Italy, 21 May 2007
10. Predictive models for the sensory profile of cheese. Seminar for the school "Predictive models for the sensory characteristics of food", S. Michele a/A, Italy, 28-29 June 2006
11. Applicazione della tecnica PTR-MS a problematiche agroindustriali. Invited seminar. Versuchszentrum Laimburg. Laimburg, Italy, 15 December 2005
12. Correlazione fra dati PTR-MS e dati sensoriali in campo alimentare e ambientale: un esempio. Tutto sugli odori: giornata di studio GSiSR: Milan, 23 June 2004
13. High school teacher of mathematics and physics. October 1987 - July 1993 (not continuously, for a total of 49 months). Liceo Scientifico "L. da Vinci", via Rosmini, Trento, Italy and Liceo Scientifico "G. Galilei", via Perini, Trento, Italy
14. March 1989 - March 1990. Children education and teaching (Civil service). Junior high school "M. Ausiliatrice", via Barbacovi, Trento, Italy.
15. Co-tutor of master theses:
  - Gianmarco Autiero (2002-2003) Olfattometria e PTR-MS per la valutazione delle emissioni odorose negli impianti di compostaggio: una comparazione preliminare. (Collaboration with the University of Naples, Prof. Giampaolo Rotondo, and the Technology Transfer Centre of Fondazione Edmund Mach, Dott. Gino Odorizzi)

16. Tutor/co-tutor of PhD theses:
- Eugenio Aprea (9/2002-11/2005) PhD in Physics. Tutor Prof. Tilmann Maerk (University of Innsbruck). Topic: development and test of PTR-QUAD-MS applications in food science and technology.
  - Luca Cappellin (2009-2012) PhD in Physics. Tutor Prof. Tilmann Maerk (University of Innsbruck). Topic: data analysis for PTR-ToF-MS
  - Valentina Ting (2011-2015), PhD in Food Science. Tutor Prof. Phil Bremer (University of Otago) Topic: The influence of volatile organic compound release, texture and microstructure on the perception of apple flavour.
  - Hugo Campbell-Sills (2011-2015). Oenology program of the PhD school of "SCIENCES DE LA VIE ET DE LA SANTÉ" (Bordeaux) and "ALIMENTI, NUTRIZIONE E SALUTE" (Foggia). Tutor Prof. Patrick M. Lukas (Université Victor Segalen Bordeaux 2) e Prof. Giuseppe Spano (Università di Foggia). Topic: PTR-MS and GC/MS analysis of aroma compounds in musts inoculated by different strains of oenological relevance.
  - Sine Yener (1/2013-3/2016), PhD in Chemistry and Pharmacy. Tutor Prof. Guenther Bonn (University of Innsbruck). Topic: Direct analysis of coffee aroma compounds with Proton Transfer Reaction-Time of Flight-Mass Spectrometry: traceability, perceived quality and processing.
  - Salim Makhoul (2013-2016) PhD in Food Science (University of Burgundy) and in Chemistry (University of Balamand). Tutor Prof. Jean Guzzo (University of Burgundy). Topic: Proton-Transfer-Reaction Mass-Spectrometry (PTR-MS) for the Study of the Aromatic Potential of Bakery Starter Strains.
  - Erna Schuhfried (2008-2011) PhD in Physics. Tutors Prof. Tilmann Maerk and Prof. Paul Scheier (University of Innsbruck). Topic: Investigating Partitioning Phenomena with Proton Transfer-Mass Spectrometry and Theoretical Methods
  - Michele Pedrotti (8/2016- planned 7/2019) PhD in Food Science. Tutor Prof. Vincenzo Fogliano (Wageningen University and Research). Topic: Application of PTR-MS to industrial quality control.
17. Tutor of Post Docs or equivalent positions:
- Christos Soukoulis (9/2009-2/2012) Topic: In vitro and in vivo flavour release from different food matrices (Fondazione Edmund Mach)
  - Josè Sanchez del Pulgar (2/2012-2/2014) Topic: Application of PTR-ToF-MS to typical meat products (Fondazione Edmund Mach).
  - Luca Cappellin (2013-2016) Topic: Release of volatile organic compounds induced in plants by biotic and abiotic stress (Fondazione Edmund Mach).
  - Andrea Romano (10/2011-9/2014) Topic: Comparison of in-vivo and in-vitro volatile compound release in the case of relevant food matrixes (Fondazione Edmund Mach).
  - Vittorio Capozzi (2011-2012) Topic: applications of PTR-MS to the real time analysis of volatile compounds released by microorganisms of agroindustrial relevance (University of Bolzano, Prof. Matteo Scampicchio).

## Organization of meetings and conferences

- 1 Organisation and chair of the "food" session at the 8th International PTR-MS Conference (Innsbruck – Austria. 4th February – 8st February 2019)
- 2 Member of the scientific committee of the 2nd MS Wine Day (Susegnana, Treviso – Italy, 9th-10th May 2017)
- 3 Organisation and chair of the "food" session at the 7th International PTR-MS Conference (Universitätszentrum Obergurgl, Obergurgl – Austria. 14th February – 19st February 2016)
- 4 Member of the scientific committee of the 4th MS Food Day (Foggia, 7th-9th October 2015)
- 5 Member of the scientific committee of the 1st MS Wine Day (Bagno a Ripoli, Firenze – Italy, 16th-17th April 2015)
- 6 Organisation of the 3rd MS Food Day (Trento, 9th -11th October 2013): Chair of the Organising committee and member of the scientific committee.



- 7 Member of the scientific committee of the 2nd MS Food Day (Trieste, 19th-21th October 2011)
- 8 Organisation and chair of the “food” session at the 5th International PTR-MS Conference (Universitätszentrum Obergurgl, Obergurgl – Austria. 26th January – 2nd February 2011)
- 9 Organisation and chair of the “food” session at the 4th International PTR-MS Conference (Universitätszentrum Obergurgl, Obergurgl – Austria. 16th February – 21st February 2009)

## My publications (ISI: from Web of Science Core Collection 2.3.2020)

Total papers **191**  
 H-index **34**  
 Total citations **3775** (2784 without self-citations)  
 Citing papers **2056** (1894 without self-citations)  
 Average citations per item **19.66**

### REFEREED PUBLICATIONS (In bold the 12 publications selected for the present application)

1. Cappellin, L; Loreto, F; Biasioli, F; Pastore, P; McKinney, K (2019) A mechanism for biogenic production and emission of MEK from MVK decoupled from isoprene biosynthesis. *ATMOSPHERIC CHEMISTRY AND PHYSICS*
2. Pedrotti, M; Spaccasassi, A; Biasioli, F; Fogliano, V (2018) Ethnicity, gender and physiological parameters: Their effect on in vivo flavour release and perception during chewing gum consumption. *FOOD RESEARCH INTERNATIONAL*
3. Yepez, A; Russo, P; Spano, G; Khomenko, I; Biasioli, F; Capozzi, V; Aznar, R; In situ riboflavin fortification of different kefir-like cereal-based beverages using selected Andean LAB strains. *FOOD MICROBIOLOGY*
4. Pegolo, S; Bergamaschi, M; Gasperi, F; Biasioli, F; Cecchinato, A; Bittante, G (2018) Integrated PTR-ToF-MS, GWAS and biological pathway analyses reveal the contribution of cow’s genome to cheese volatilome. *SCIENTIFIC REPORTS*
5. Pedrotti, M; Khomenko, I; Cappellin, L; Fontana, M; Somenzi, M; Falchero, L; Arveda, M; Fogliano, V; Biasioli, F (2018) Rapid and noninvasive quality control of anhydrous milk fat by PTR-MS: The effect of storage time and packaging. *JOURNAL OF MASS SPECTROMETRY*
6. Pico, J; Khomenko, I; Capozzi, V; Navarini, L; Bernal, J; Gomez, M; Biasioli, F (2018) Analysis of volatile organic compounds in crumb and crust of different baked and toasted gluten-free breads by direct PTR-ToF-MS and fast-GC-PTR-ToF-MS. *JOURNAL OF MASS SPECTROMETRY*
7. **Richter, TM; Silcock, P; Algarra, A; Eyres, GT; Capozzi, V; Bremer, PJ; Biasioli, F (2018) Evaluation of PTR-ToF-MS as a tool to track the behavior of hop-derived compounds during the fermentation of beer. *FOOD RESEARCH INTERNATIONAL***
8. Papurello, D; Boschetti, A; Silvestri, S; Khomenko, I; Biasioli, F (2018) Real-time monitoring of removal of trace compounds with PTR-MS: Biochar experimental investigation. *RENEWABLE ENERGY*
9. Stucchi, M; Galli, F; Bianchi, CL; Pirola, C; Boffito, DC; Biasioli, F; Capucci, V (2018) Simultaneous photodegradation of VOC mixture by TiO<sub>2</sub> powders. *CHEMOSPHERE*
10. Peinado, I; Mason, M; Biasioli, F; Scampicchio, M (2018) Hyphenation of proton transfer reaction mass spectrometry with thermal analysis for monitoring the thermal degradation of retinyl acetate. *RAPID COMMUNICATIONS IN MASS SPECTROMETRY*
11. Marino, G; Brunetti, C; Tattini, M; Romano, A; Biasioli, F; Tognetti, R; Loreto, F; Ferrini, F; Centritto, M (2017) Dissecting the role of isoprene and stress-related hormones (ABA and ethylene) in *Populus nigra* exposed to unequal root zone water stress.
12. **Khomenko, I; Stefanini, I; Cappellin, L; Cappelletti, V; Franceschi, P; Cavalieri, D; Mark, TD; Biasioli, F (2017) Non-invasive real time monitoring of yeast volatilome by PTR-ToF-MS. *METABOLOMICS***
13. Giacomuzzi, V; Cappellin, L; Nones, S; Khomenko, I; Biasioli, F; Knight, AL; Angeli, S (2017) Diel rhythms in the volatile emission of apple and grape foliage. *PHYTOCHEMISTRY*
14. Capozzi, V; Yener, S; Khomenko, I; Farneti, B; Cappellin, L; Gasperi, F; Scampicchio, M; Biasioli, F (2017) PTR-ToF-MS Coupled with an Automated Sampling System and Tailored Data Analysis for Food Studies: Bioprocess Monitoring, Screening and Nose-space Analysis. *JOVE-JOURNAL OF VISUALIZED EXPERIMENTS*
15. Asaduzzaman, M; Biasioli, F; Cosio, MS; Schampicchio, M (2017) Hexanal as biomarker for milk oxidative stress induced by copper ions. *JOURNAL OF DAIRY SCIENCE*

16. Farneti, B; Khomenko, I; Grisenti, M; Ajelli, M; Betta, E; Algarra, AA; Cappellin, L; Aprea, E; Gasperi, F; Biasioli, F; Giongo, L (2017) Exploring Blueberry Aroma Complexity by Chromatographic and Direct-Injection Spectrometric Techniques. *FRONTIERS IN PLANT SCIENCE*
17. Ahrar, M; Doneva, D; Tattini, M; Brunetti, C; Gori, A; Rodeghiero, M; Wohlfahrt, G; Biasioli, F; Varotto, C; Loreto, F; Velikova, V (2017) Phenotypic differences determine drought stress responses in ecotypes of *Arundo donax* adapted to different environments. *JOURNAL OF EXPERIMENTAL BOTANY*
18. Cappellin, L; Alarcon, AA; Herdinger-Blatt, I; Sanchez, J; Biasioli, F; Martin, ST; Loreto, F; McKinney, KA (2017) Field observations of volatile organic compound (VOC) exchange in red oaks. *ATMOSPHERIC CHEMISTRY AND PHYSICS*
19. Aprea, E; Charles, M; Endrizzi, I; Corollaro, ML; Betta, E; Biasioli, F; Gasperi, F (2017) Sweet taste in apple: the role of sorbitol, individual sugars, organic acids and volatile compounds. *SCIENTIFIC REPORTS*
20. Farneti, B; Di Guardo, M; Khomeko, I; Cappellin, L; Biasioli, F; Velasco, R; Costa, F (2017) Genome-wide association study unravels the genetic control of the apple volatilome and its interplay with fruit texture. *JOURNAL OF EXPERIMENTAL BOTANY*
21. Haman, N; Romano, A; Asaduzzaman, M; Ferrentino, G; Biasioli, F; Scampicchio, M (2017) A microcalorimetry study on the oxidation of linoleic acid and the control of rancidity. *TALANTA*
22. Pilati, S; Brazzale, D; Guella, G; Milli, A; Ruberti, C; Biasioli, F; Zottini, M; Moser, C (2017) The onset of grapevine berry ripening is characterized by reactive oxygen species accumulation and 13-lipoxygenase-derived galactolipid peroxides in the chloroplasts. *Acta Horticulturae*
23. Lazzazzara, V; Perazzolli, M; Pertot, I; Biasioli, F; Puopolo, G; Cappellin, L (2017) Growth media affect the volatilome and antimicrobial activity against *Phytophthora infestans* in four *Lysobacter* type strains. *MICROBIOLOGICAL RESEARCH*
24. Schuhfried, E; Betta, E; Cappellin, L; Aprea, E; Gasperi, F; Mark, TD; Biasioli, F (2017) Withering of plucked *Trachelospermum jasminoides* (star jasmine) flowers - Time-dependent volatile compound profile obtained with SPME/GC-MS and proton transfer reaction-mass spectrometry (PTR-MS). *POSTHARVEST BIOLOGY AND TECHNOLOGY*
25. Tadiello, A ; Longhi, S; Moretto, M; Ferrarini, A; Tononi, P; Farneti, B; Busatto, N; Vrhovsek, U; dal Molin, A; Avanzato, C; Biasioli, F; Cappellin, L; Scholz, M; Velasco, R; Trainotti, L; Delledonne, M; Costa, F (2016) Interference with ethylene perception at receptor level sheds light on auxin and transcriptional circuits associated with the climacteric ripening of apple fruit (*Malus x domestica* Borkh.). *PLANT JOURNAL*
26. Giacomuzzi, V; Cappellin, L; Khomenko, I; Biasioli, F; Schutz, S; Tasin, M; Knight, AL; Angeli, S (2016) Emission of Volatile Compounds from Apple Plants Infested with *Pandemis heparana* Larvae, Antennal Response of Conspecific Adults, and Preliminary Field Trial. *JOURNAL OF CHEMICAL ECOLOGY*
27. Ting, VJL; Romano, A; Soukoulis, C; Silcock, P; Bremer, PJ; Cappellin, L; Biasioli, F (2016) Investigating the in-vitro and in-vivo flavour release from 21 fresh-cut apples. *FOOD CHEMISTRY*
28. Bergamaschi, M; Cecchinato, A; Biasioli, F; Gasperi, F; Martin, B; Bittante, G (2016) From cow to cheese: genetic parameters of the flavour fingerprint of cheese investigated by direct-injection mass spectrometry (PTR-ToF-MS). *GENETICS SELECTION EVOLUTION*
29. Cuenca, M; Ciesa, F; Romano, A; Robatscher, P; Scampicchio, M; Biasioli, F (2016) Mead fermentation monitoring by proton transfer reaction mass spectrometry and medium infrared probe. *EUROPEAN FOOD RESEARCH AND TECHNOLOGY*
30. Yener, S; Navarini, L; Lonzarich, V; Cappellin, L; Mark, TD; Bonn, GK; Biasioli, F (2016) Monitoring single coffee bean roasting by direct volatile compound analysis with proton transfer reaction time-of-flight mass spectrometry. *JOURNAL OF MASS SPECTROMETRY*
31. Makhoul, S; Yener, S; Khomenko, I; Capozzi, V; Cappellin, L; Aprea, E; Scampicchio, M; Gasperi, F; Biasioli, F (2016) Rapid non-invasive quality control of semi-finished products for the food industry by direct injection mass spectrometry headspace analysis: the case of milk powder, whey powder and anhydrous milk fat. *JOURNAL OF MASS SPECTROMETRY*
32. Acierno, V; Yener, S; Alewijn, M; Biasioli, F; van Ruth, S (2016) Factors contributing to the variation in the volatile composition of chocolate: Botanical and geographical origins of the cocoa beans, and brand-related formulation and processing. *FOOD RESEARCH INTERNATIONAL*
33. Cellini, A; Biondi, E; Buriani, G; Farneti, B; Rodriguez-Estrada, MT; Braschi, I; Savioli, S; Biasioli, S; Rocchi, L; Biasioli, F; Costa, G; Spinelli, F (2016) Characterization of volatile organic compounds emitted by kiwifruit plants infected with *Pseudomonas syringae* pv. *actinidiae* and their effects on host defences. *TREES-STRUCTURE AND FUNCTION*
34. Yener, S; Sánchez-López, J; Granitto, PM; Cappellin, L; Märk, TD; Zimmerman, R; Bonn, GK; Yeretizian, C; Biasioli, F (2016) Rapid and direct volatile compound profiling of black and green teas (*Camellia sinensis*) from different countries with PTR-ToF-MS. *TALANTA*

35. Cellini, A; Biondi, E; Biasioli, S; Rocchi, L; Farneti, B; Braschi, I; Savioli, S; Rodriguez-Estrada, MT; Biasioli, F; Spinelli, F (2016) Early detection of bacterial diseases in apple plants by analysis of volatile organic compounds profiles and use of electronic nose. ANNALS OF APPLIED BIOLOGY
36. Peinado, I; Mason, M; Romano, A; Biasioli, F; Scampicchio, M (2016) Stability of beta-carotene in polyethylene oxide electrospun nanofibers. APPLIED SURFACE SCIENCE
37. Papurello, D; Tomasi, L; Silvestri, S; Belcari, I; Santarelli, M; Smeacetto, F; Biasioli, F (2016) Biogas trace compound removal with ashes using proton transfer reaction time-of-flight mass spectrometry as innovative detection tool. FUEL PROCESSING TECHNOLOGY
38. Morozova, K; Romano, A; Lonardi, F; Ferrarini, R; Biasioli, F; Scampicchio M (2016) Microcalorimetric monitoring of grape withering. TERMOCHIMICA ACTA
39. Capozzi, V; Makhoul, S; Aprea, E; Romano, A; Cappellin, L; Jimena, AS; Spano, G; Gasperi, F; Scampicchio, M; Biasioli, F (2016) PTR-MS Characterization of VOCs Associated with Commercial Aromatic Bakery Yeasts of Wine and Beer Origin. MOLECULES
40. Campbell-Sills, H; Capozzi, V; Romano, A; Cappellin, L; Spano, G; Breniaux, M; Lucas, P; Biasioli, F (2016) Advances in wine analysis by PTR-ToF-MS: Optimization of the method and discrimination of wines from different geographical origins and fermented with different malolactic starters. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
41. Schuhfried, E; Romano, A; Mark, TD; Biasioli, F (2016) Proton Transfer Reaction-Mass Spectrometry (PTR-MS) as a tool for the determination of mass transfer coefficients. CHEMICAL ENGINEERING SCIENCE
42. Schuhfried, E; del Pulgar, JS; Bobba, M; Piro, R; Cappellin, L; Mark, TD; Biasioli, F (2015) Classification of 7 monofloral honey varieties by PTR-ToF-MS direct headspace analysis and chemometrics. TALANTA
43. Papurello, D; Silvestri, S; Tomasi, L; Belcari, I; Biasioli, F; Santarelli, M (2016) Biowaste for SOFCs. 71<sup>ST</sup> CONFERENCE OF THE ITALIAN THERMAL MACHINES ENGINEERING ASSOCIATION (ATI 2016) Edited by: Masoero, MC; Arsie, I, Book Series: Energy Procedia
44. Papurello, D; Silvestri, S; Tomasi, L; Belcari, I; Biasioli, F; Santarelli, M (2016) Natural gas trace compounds analysis with innovative systems: PTR-ToF-MS and FASTGC. 71<sup>ST</sup> CONFERENCE OF THE ITALIAN THERMAL MACHINES ENGINEERING ASSOCIATION (ATI 2016) Edited by: Masoero, MC; Arsie, I, Book Series: Energy Procedia
45. Neri, F; Cappellin, L; Spadoni, A; Cameldi, I; Alarcon, AA; Gasperi, F; Biasioli, F; Mari, M (2016) Can strawberry volatile emissions influence Botrytis cinerea growth? ACTA HORTICULTURAE
46. Romano, A; Cuenca, M; Makhoul, S; Biasioli, F; Martinello, L; Fugatti, A; Scampicchio, M (2016) COMPARISON OF E-NOSES: THE CASE STUDY OF HONEY. ITALIAN JOURNAL OF FOOD SCIENCE
47. Cappellin, L; Costa, F; Aprea, E; Betta, E; Gasperi, F; Biasioli, F (2015) Double clustering of PTR-ToF-MS data enables the mapping of QTLs related to apple fruit volatilome. SCIENTIA HORTICULTURAE
48. Bergamaschi, M; Biasioli, F; Cappellin, L; Cecchinato, A; Cipolat-Gotet, C; Cornu, A; Gasperi, F; Martin, B; Bittante, G (2015) Proton transfer reaction time-of-flight mass spectrometry: A high-throughput and innovative method to study the influence of dairy system and cow characteristics on the volatile compound fingerprint of cheeses. JOURNAL OF DAIRY SCIENCE
49. Gamero-Negron, R; del Pulgar, JS; Cappellin, L; Garcia, C; Gasperi, F; Biasioli, F (2015) Immune-spaying as an alternative to surgical spaying in Iberian x Duroc females: Effect on the VOC profile of dry-cured shoulders and dry-cured loins as detected by PTR-ToF-MS. MEAT SCIENCE
50. Ahrar, M; Doneva, D; Koleva, D; Romano, A; Rodeghiero, M; Tsonev, T; Biasioli, F; Stefanova, M; Peeva, V; Wohlfahrt, G ; Loreto, F; Varotto, C; Velikova, V (2015) Isoprene emission in the monocot Arundineae tribe in relation to functional and structural organization of the photosynthetic apparatus. ENVIRONMENTAL AND EXPERIMENTAL BOTANY
51. Spadoni, A; Cappellin, L; Neri, F; Alarcon, AA; Romano, A; Guidarelli, M; Gasperi, F; Biasioli, F; Mari, M (2015) Effect of hot water treatment on peach volatile emission and Monilinia fructicola development. PLANT PATHOLOGY
52. Benozzi, E; Romano, A; Capozzi, V; Makhoul, S; Cappellin, L; Khomenko, I; Aprea, E; Scampicchio, M; Spano, G; Mark, TD; Gasperi, F; Biasioli, F (2015) Monitoring of lactic fermentation driven by different starter cultures via direct injection mass spectrometric analysis of flavour-related volatile compounds. FOOD RESEARCH INTERNATIONAL
53. Romano, A; Gaysinsky, S; Czepa, A; del Pulgar, JS; Cappellin, L; Biasioli, F (2015) Static and dynamic headspace analysis of instant coffee blends by proton-transfer-reaction mass spectrometry. JOURNAL OF MASS SPECTROMETRY

54. Capozzi, V; Makhoul, S; Cappellin, L; Romano, A; Spano, G; Aprea, E; Mark, TD; Gasperi, F; Scampicchio, M; Biasioli, F (2105) PTR-ToF-MS and bioprocesses: Potential in monitoring VOCs release by eukaryotic microbes. YEAST [27<sup>th</sup> International Conference on Yeast Genetics and Molecular Biology (ICYGMB) SEP 06-12, 2015]
55. Khomenko, I; Stefanini, I; Cappellin, L; Franceschi, P; Cappelletti, V; Biasioli, F (2015) Studying yeast volatolome with Proton-Transfer-Reaction Time-of-Flight Mass. YEAST [27<sup>th</sup> International Conference on Yeast Genetics and Molecular Biology (ICYGMB) SEP 06-12, 2015]
56. Makhoul, S; Romano, A; Capozzi, V; Spano, G; Aprea, E; Cappellin, L; Benozzi, E; Scampicchio, M; Märk, TD; Gasperi, F, El-Nakat, H; Guzzo, J; Biasioli, F (2015) Volatile Compound Production During the Bread-Making Process: Effect of Flour, Yeast and Their Interaction. FOOD AND BIOPROCESS TECHNOLOGY
57. Farneti, B; Khomenko, I; Cappellin, L; Ting, V; Costa, G; Biasioli, F; Costa, F (2015) Dynamic volatile organic compound fingerprinting of apple fruit during processing. LWT-FOOD SCIENCE AND TECHNOLOGY
58. Alarcon, AA; Lazazzara, V; Cappellin, L; Bianchedi, PL; Schuhmacher, R; Wohlfahrt, G; Pertot, I; Biasioli, F; Perazzoli, M (2015) Emission of volatile sesquiterpenes and monoterpenes in grapevine genotypes following *Plasmopara viticola* inoculation in vitro. JOURNAL OF MASS SPECTROMETRY
59. Farneti, B; Khomenko, I; Cappellin, L; Ting, V; Romano, A; Biasioli, F; Costa, G; Costa, F. (2015 ) Comprehensive VOC profiling of an apple germplasm collection by PTR-ToF-MS. METABOLOMICS
60. Campbell-Sills, H; El Khoury, M; Favier, M; Romano, A; Biasioli, F; Spano, G; Sherman, DJ; Bouchez, O; Coton, E; Coton, M; Okada, S; Tanaka, N; Dols-Lafargue, M; Lucas, PM. (2015) Phylogenomic Analysis of *Oenococcus oeni* Reveals Specific Domestication of Strains to Cider and Wines. GENOME BIOLOGY AND EVOLUTION
61. Ting, VJL; Romano, A; Silcock, P; Bremer, PJ; Corollaro, ML; Soukoulis, C; Cappellin, L; Gasperi, F; Biasioli, F. (2015) Apple Flavor: Linking Sensory Perception to Volatile Release and Textural Properties. JOURNAL OF SENSORY STUDIES
62. Neri, F; Cappellin, L; Spadoni, A; Cameldi, I; Alarcon, AA; Aprea, E; Romano, A; Gasperi, F; Biasioli, F. (2015) Role of strawberry volatile organic compounds in the development of *Botrytis cinerea* infection. PLANT PATHOLOGY
63. Romano, A; Capozzi, V; Spano, G; Biasioli, F. (2015) Proton transfer reaction-mass spectrometry: online and rapid determination of volatile organic compounds of microbial origin. APPLIED MICROBIOLOGY AND BIOTECHNOLOGY
64. Schuhfried, E; Aprea, E; Märk, TD; Biasioli, F. (2015) Refined Measurements of Henry's Law Constant of Terpenes with Inert Gas Stripping Coupled with PTR-MS. WATER AIR AND SOIL POLLUTION
65. Bergamaschi, M; Aprea, E; Betta, E; Biasioli, F; Cipolat-Gotet, C; Cecchinato, A; Bittante, G; Gasperi, F. (2015) Effects of dairy system, herd within dairy system, and individual cow characteristics on the volatile organic compound profile of ripened model cheeses. JOURNAL OF DAIRY SCIENCE
66. Farneti, B; Busatto, N; Khomenko, I; Cappellin, L; Gutierrez, S; Spinelli, F; Velasco, R; Biasioli, F; Costa, G; Costa, F. (2015) Untargeted metabolomics investigation of volatile compounds involved in the development of apple superficial scald by PTR-ToF-MS. METABOLOMICS
67. Cappellin, L; Farneti, B; Di Guardo, M; Busatto, N; Khomenko, I; Romano, A; Velasco, R; Costa, G; Biasioli, F; Costa, F. (2015) QTL Analysis Coupled with PTR-ToF-MS and Candidate Gene-Based Association Mapping Validate the Role of *Md-AAT1* as a Major Gene in the Control of Flavor in Apple Fruit. PLANT MOLECULAR BIOLOGY REPORTER
68. Yener, S; Romano, A; Cappellin, L; Granitto, PM; Aprea, E; Navarini, L; Märk, TD; Gasperi, F; Biasioli, F. (2015) Tracing coffee origin by direct injection headspace analysis with PTR/SRI-MS. FOOD RESEARCH INTERNATIONAL
69. Endrizzi, I; Torri, L; Corollaro, ML; Dematte, ML; Aprea, E; Charles, M; Biasioli, F; Gasperi, F. (2015) A conjoint study on apple acceptability: Sensory characteristics and nutritional information. FOOD QUALITY AND PREFERENCE
70. Aprea, E; Biasioli, F; Gasperi, F. (2015) Volatile Compounds of Raspberry Fruit: From Analytical Methods to Biological Role and Sensory Impact. MOLECULES
71. Papurello, D; Schuhfried, E; Lanzini, A; Romano, A; Cappellin, L; Märk, TD; Silvestri, S; Santarelli, M; Biasioli, F. (2015) Proton transfer reaction-mass spectrometry as a rapid inline tool for filter efficiency of activated charcoal in support of the development of Solid Oxide Fuel Cells fueled with biogas. FUEL PROCESSING TECHNOLOGY
72. Papurello, D; Tognana, L; Lanzini, A; Smeacetto, F; Santarelli, M; Belcari, I; Silvestri, S; Biasioli, F. (2015) Proton transfer reaction mass spectrometry technique for the monitoring of volatile sulfur compounds in a fuel cell quality clean-up system. FUEL PROCESSING TECHNOLOGY

73. Farneti, B; Busatto, N; Gutierrez, S; Spinelli, F; Costa, G; Khomenko, I; Cappellin, L; Biasioli, F; Costa, F (2015) Detection of alpha-Farnesene and 6-Methyl-5-hepten-2-one Involved in the Development of Apple Superficial Scald by PTR-ToF-MS. ACTA HORTICULTURAE
74. Corollaro, ML; Manfrini, L; Endrizzi, I; Aprea, E; Dematte, ML; Charles, M; Bergamaschi, M; Biasioli, F; Zibordi, M; Grappadelli, LC; Gasperi, F. (2015) The effect of two orchard light management practices on the sensory quality of apple: fruit thinning by shading or photo-selective nets. JOURNAL OF HORTICULTURAL SCIENCE & BIOTECHNOLOGY
75. Aprea, E; Romano, A; Betta, E; Biasioli, F; Cappellin, L; Fanti, M; Gasperi, F. (2015) Volatile compound changes during shelf life of dried *Boletus edulis*: comparison between SPME-GC-MS and PTR-ToF-MS analysis. JOURNAL OF MASS SPECTROMETRY
76. Dematte, ML; Pojer, N; Endrizzi, I; Corollaro, ML; Betta, E; Aprea, E; Charles, M; Biasioli, F; Zampini, M; Gasperi, F. (2014) Effects of the sound of the bite on apple perceived crispness and hardness. FOOD QUALITY AND PREFERENCE
77. Corollaro, ML; Aprea, E; Endrizzi, I; Betta, E; Dematte, ML; Charles, M; Bergamaschi, M; Costa, F; Biasioli, F; Grappadelli, LC; Gasperi, F. (2014) A combined sensory-instrumental tool for apple quality evaluation. POSTHARVEST BIOLOGY AND TECHNOLOGY
78. Makhoul, S; Romano, A; Cappellin, L; Spano, G; Capozzi, V; Benozzi, E; Märk, TD; Aprea, E; Gasperi, F; El-Nakat, H; Guzzo, J; Biasioli, F. (2014) Proton-transfer-reaction mass spectrometry for the study of the production of volatile compounds by bakery yeast starters. JOURNAL OF MASS SPECTROMETRY
79. Yener, S; Romano, A; Cappellin, L; Märk, TD; del Pulgar, JS; Gasperi, F; Navarini, L; Biasioli, F. (2014) PTR-ToF-MS characterisation of roasted coffees (*C-arabica*) from different geographic origins. JOURNAL OF MASS SPECTROMETRY
80. Aprea, E; Cappellin, L; Gasperi, F; Morisco, F; Lembo, V; Rispo, A; Tortora, R; Vitaglione, P; Caporaso, N; Biasioli, F. (2014) Application of PTR-TOF-MS to investigate metabolites in exhaled breath of patients affected by coeliac disease under gluten free diet. JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES
81. **Romano, A; Fischer, L; Herbig, J; Campbell-Sills, H; Coulon, J; Lucas, P; Cappellin, L; Biasioli, F. (2014) Wine analysis by FastGC proton-transfer reaction-time-of-flight-mass spectrometry. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY**
82. Busatto, N; Farneti, B; Tadiello, A; Vrhovsek, U; Cappellin, L; Biasioli, F; Velasco, R; Costa, G; Costa, F. (2014) Target metabolite and gene transcription profiling during the development of superficial scald in apple (*Malus x domestica* Borkh). BMC PLANT BIOLOGY
83. Romano, A; Cappellin, L; Ting, V; Aprea, E; Navarini, L; Gasperi, F; Biasioli, F. (2014) Nosespace analysis by PTR-ToF-MS for the characterization of food and tasters: The case study of coffee. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
84. **Cappellin, L; Makhoul, S; Schuhfried, E; Romano, A; del Pulgar, JS; Aprea, E; Farneti, B; Costa, F; Gasperi, F; Biasioli, F. (2014) Ethylene: Absolute real-time high-sensitivity detection with PTR/SRI-MS. The example of fruits, leaves and bacteria. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY**
85. del Pulgar, JS; Renaville, B; Soukoulis, C; Cappellin, L; Romano, A; Gasperi, F; Piasentier, E; Biasioli, F. (2014) Stearoyl-CoA desaturase and sterol regulatory binding protein 1 markers: Effect on the volatile profile of dry-cured Parma, San Daniele and Toscano hams as detected by PTR-ToF-MS. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
86. Pilati, S; Brazzale, D; Guella, G; Milli, A; Ruberti, C; Biasioli, F; Zottini, M; Moser, C. (2014) The onset of grapevine berry ripening is characterized by ROS accumulation and lipoxygenase-mediated membrane peroxidation in the skin. BMC PLANT BIOLOGY
87. Papurello, D; Schuhfried, E; Lanzini, A; Romano, A; Cappellin, L; Märk, TD; Silvestri, S; Biasioli, F. (2014) Influence of co-vapors on biogas filtration for fuel cells monitored with PTR-MS (Proton Transfer Reaction-Mass Spectrometry). FUEL PROCESSING TECHNOLOGY
88. Costa, F; Cappellin, L; Farneti, B; Tadiello, A; Romano, A; Soukoulis, C; Sansavini, S; Velasco, R; Biasioli, F. (2014) Advances in QTL mapping for ethylene production in apple (*Malus x domestica* Borkh.). POSTHARVEST BIOLOGY AND TECHNOLOGY
89. Ting, VJL; Silcock, P; Bremer, PJ; Biasioli, F. (2013) X-Ray Micro-Computer Tomographic Method to Visualize the Microstructure of Different Apple Cultivars. JOURNAL OF FOOD SCIENCE
90. Cappellin, L; Aprea, E; Granitto, P; Romano, A; Gasperi, F; Biasioli, F. (2013) Multiclass methods in the analysis of metabolomic datasets: The example of raspberry cultivar volatile compounds detected by GC-MS and PTR-MS. FOOD RESEARCH INTERNATIONAL
91. del Pulgar, JS; Carrapiso, AI; Reina, R; Biasioli, F; Garcia, C. (2013) Effect of IGF-II genotype and pig rearing system on the final characteristics of dry-cured Iberian hams. MEAT SCIENCE

92. Costa, F; Cappellin, L; Zini, E; Patocchi, A; Kellerhals, M; Komjanc, M; Gessler, C; Biasioli, F. (2013) QTL validation and stability for volatile organic compounds (VOCs) in apple. PLANT SCIENCE
93. Soukoulis, C; Cappellin, L; Aprea, E; Costa, F; Viola, R; Märk, TD; Gasperi, F; Biasioli, F. (2013) PTR-ToF-MS, A Novel, Rapid, High Sensitivity and Non-Invasive Tool to Monitor Volatile Compound Release During Fruit Post-Harvest Storage: The Case Study of Apple Ripening. FOOD AND BIOPROCESS TECHNOLOGY
94. Cappellin, L; Loreto, F; Aprea, E; Romano, A; del Pulgar, JS; Gasperi, F; Biasioli, F. (2013) PTR-MS in Italy: A Multipurpose Sensor with Applications in Environmental, Agri-Food and Health Science. SENSORS
95. Dematte, ML; Endrizzi, I; Biasioli, F; Corollaro, ML; Pojer, N; Zampini, M; Aprea, E; Gasperi, F. (2013) Food neophobia and its relation with olfactory ability in common odour identification. APPETITE
96. Ozdestan, O; van Ruth, SM; Alewijn, M; Koot, A; Romano, A; Cappellin, L; Biasioli, F. (2013) Differentiation of specialty coffees by proton transfer reaction-mass spectrometry. FOOD RESEARCH INTERNATIONAL
97. Schuhfried, E; Märk, TD; Biasioli, F. (2013) Primary Ion Depletion Kinetics (PIDK) Studies as a New Tool for Investigating Chemical Ionization Fragmentation Reactions with PTR-MS. PLOS ONE
98. Maihom, T; Schuhfried, E; Probst, M; Limtrakul, J; Märk, TD; Biasioli, F. (2013) Fragmentation of Allylmethylsulfide by Chemical Ionization: Dependence on Humidity and Inhibiting Role of Water. JOURNAL OF PHYSICAL CHEMISTRY A
99. Tsevdou, M; Soukoulis, C; Cappellin, L; Gasperi, F; Taoukis, PS; Biasioli, F. (2013) Monitoring the effect of high pressure and transglutaminase treatment of milk on the evolution of flavour compounds during lactic acid fermentation using PTR-ToF-MS. FOOD CHEMISTRY
100. **Morisco, F; Aprea, E; Lembo, V; Fogliano, V; Vitaglione, P; Mazzone, G; Cappellin, L; Gasperi, F; Masone, S; De Palma, GD; Marmo, R; Caporaso, N; Biasioli, F. (2013) Rapid "Breath-Print" of Liver Cirrhosis by Proton Transfer Reaction Time-of-Flight Mass Spectrometry. A Pilot Study. PLOS ONE**
101. Lembo, V; Aprea, E; Fogliano, V; Vitaglione, P; Mazzone, G; Loperto, I; Cappellin, L; Gasperi, F; Biasioli, F; Morisco, F; Caporaso, N. (2013) ONLINE ANALYSIS OF BREATH BY PROTON TRANSFER REACTION TIME OF FLIGHT MASS SPECTROMETRY IN CIRRHOTIC PATIENTS. JOURNAL OF HEPATOLOGY
102. Schuhfried, E; Probst, M; Limtrakul, J; Wannakao, S; Aprea, E; Cappellin, L; Märk, TD; Gasperi, F; Biasioli, F. (2013) Sulfides: chemical ionization induced fragmentation studied with Proton Transfer Reaction-Mass Spectrometry and density functional calculations. JOURNAL OF MASS SPECTROMETRY
103. del Pulgar, JS; Soukoulis, C; Carrapiso, Al; Cappellin, L; Granitto, P; Aprea, E; Romano, A; Gasperi, F; Biasioli, F. (2013) Effect of the pig rearing system on the final volatile profile of Iberian dry-cured ham as detected by PTR-ToF-MS. MEAT SCIENCE
104. Corollaro, ML; Endrizzi, I; Bertolini, A; Aprea, E; Dematte, ML; Costa, F; Biasioli, F; Gasperi, F. (2013) Sensory profiling of apple: Methodological aspects, cultivar characterisation and postharvest changes. POSTHARVEST BIOLOGY AND TECHNOLOGY
105. Endrizzi, I; Aprea, E; Biasioli, F; Corollaro, ML; Dematte, ML; Penasa, M; Bittante, G; Gasperi, F. (2013) Implementing Sensory Analysis Principles in the Quality Control of PDO Products: A Critical Evaluation of a Real-World Case Study. JOURNAL OF SENSORY STUDIES
106. Bevilacqua, M.; Marini, F.; Biasioli, F.; Gasperi, F. (2013) Advances in analysis of instrumental food sensory quality data. INSTRUMENTAL ASSESSMENT OF FOOD SENSORY QUALITY: A PRACTICAL GUIDE Book Series: Woodhead Publishing Series in Food Science Technology and Nutrition
107. **Papurello, D; Soukoulis, C; Schuhfried, E; Cappellin, L; Gasperi, F; Silvestri, S; Santarelli, M; Biasioli, F. (2012) Monitoring of volatile compound emissions during dry anaerobic digestion of the Organic Fraction of Municipal Solid Waste by Proton Transfer Reaction Time-of-Flight Mass Spectrometry. BIORESOURCE TECHNOLOGY**
108. Aprea, E; Corollaro, ML; Betta, E; Endrizzi, I; Dematte, ML; Biasioli, F; Gasperi, F. (2012) Sensory and instrumental profiling of 18 apple cultivars to investigate the relation between perceived quality and odour and flavour. FOOD RESEARCH INTERNATIONAL
109. Ting, VJL; Soukoulis, C; Silcock, P; Cappellin, L; Romano, A; Aprea, E; Bremer, PJ; Märk, TD; Gasperi, F; Biasioli, F. (2012) In Vitro and In Vivo Flavor Release from Intact and Fresh-Cut Apple in Relation with Genetic, Textural, and Physicochemical Parameters. JOURNAL OF FOOD SCIENCE
110. **Cappellin, L; Soukoulis, C; Aprea, E; Granitto, P; Dallabetta, N; Costa, F; Viola, R; Märk, TD; Gasperi, F; Biasioli, F. (2012) PTR-ToF-MS and data mining methods: a new tool for fruit metabolomics. METABOLOMICS**
111. Aprea, E; Morisco, F; Biasioli, F; Vitaglione, P; Cappellin, L; Soukoulis, C; Lembo, V; Gasperi, F; D'Argenio, G; Fogliano, V; Caporaso, N. (2012) Analysis of breath by proton transfer reaction time of flight mass spectrometry in rats with steatohepatitis induced by high-fat diet. JOURNAL OF MASS SPECTROMETRY

112. **Cappellin, L; Aprea, E; Granitto, P; Wehrens, R; Soukoulis, C; Viola, R; Märk, TD; Gasperi, F; Biasioli, F. (2012) Linking GC-MS and PTR-TOF-MS fingerprints of food samples. CHEMOMETRICS AND INTELLIGENT LABORATORY SYSTEMS**
113. Soukoulis, C; Biasioli, F; Aprea, E; Schuhfried, E; Cappellin, L; Märk, TD; Gasperi, F. (2012) PTR-TOF-MS Analysis for Influence of Milk Base Supplementation on Texture and Headspace Concentration of Endogenous Volatile Compounds in Yogurt. *FOOD AND BIOPROCESS TECHNOLOGY*
114. Costa, F; Cappellin, L; Fontanari, M; Longhi, S; Guerra, W; Magnago, P; Gasperi, F; Biasioli, F. (2012) Texture dynamics during postharvest cold storage ripening in apple (*Malus x domestica* Borkh.). *POSTHARVEST BIOLOGY AND TECHNOLOGY*
115. Tasin, M; Cappellin, L; Biasioli, F. (2012) Fast Direct Injection Mass-Spectrometric Characterization of Stimuli for Insect Electrophysiology by Proton Transfer Reaction-Time of Flight Mass-Spectrometry (PTR-ToF-MS). *SENSORS*
116. Endrizzi, I; Fabris, A; Biasioli, F; Aprea, E; Franciosi, E; Poznanski, E; Cavazza, A; Gasperi, F. (2012) The effect of milk collection and storage conditions on the final quality of Trentingrana cheese: Sensory and instrumental evaluation. *INTERNATIONAL DAIRY JOURNAL*
117. Schuhfried, E; Aprea, E; Cappellin, L; Soukoulis, C; Viola, R; Märk, TD; Gasperi, F; Biasioli, F. (2012) Desorption kinetics with PTR-MS: Isothermal differential desorption kinetics from a heterogeneous inlet surface at ambient pressure and a new concept for compound identification. *INTERNATIONAL JOURNAL OF MASS SPECTROMETRY*
118. Heenan, S; Soukoulis, C; Silcock, P; Fabris, A; Aprea, E; Cappellin, L; Märk, TD; Gasperi, F; Biasioli, F. (2012) PTR-TOF-MS monitoring of in vitro and in vivo flavour release in cereal bars with varying sugar composition. *FOOD CHEMISTRY*
119. Eccel, E; Cau, P; Riemann-Campe, K; Biasioli, F. (2012) Quantitative hail monitoring in an alpine area: 35-year climatology and links with atmospheric variables. *INTERNATIONAL JOURNAL OF CLIMATOLOGY*
120. **Cappellin, L; Karl, T; Probst, M; Ismailova, O; Winkler, PM; Soukoulis, C; Aprea, E; Märk, TD; Gasperi, F; Biasioli, F. (2012) On Quantitative Determination of Volatile Organic Compound Concentrations Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry. ENVIRONMENTAL SCIENCE & TECHNOLOGY**
121. Dematte, ML; Endrizzi, I; Biasioli, F; Corollaro, ML; Zampini, M; Gasperi, F. (2011) Individual Variability in the Awareness of Odors: Demographic Parameters and Odor Identification Ability. *CHEMOSENSORY PERCEPTION*
122. del Pulgar, JS; Soukoulis, C; Biasioli, F; Cappellin, L; Garcia, C; Gasperi, F; Granitto, P; Märk, TD; Piasentier, E; Schuhfried, E. (2011) Rapid characterization of dry cured ham produced following different PDOs by proton transfer reaction time of flight mass spectrometry (PTR-ToF-MS). *TALANTA*
123. **Cappellin, L; Biasioli, F; Granitto, PM; Schuhfried, E; Soukoulis, C; Costa, F; Märk, TD; Gasperi, F. (2011) On data analysis in PTR-TOF-MS: From raw spectra to data mining. SENSORS AND ACTUATORS B-CHEMICAL**
124. **Biasioli, F; Yeretizian, C; Gasperi, F; Märk, TD. (2011) PTR-MS monitoring of VOCs and BVOCs in food science and technology. TRAC-TRENDS IN ANALYTICAL CHEMISTRY**
125. **Biasioli, F; Yeretizian, C; Märk, TD; Dewulf, J; Van Langenhove, H. (2011) Direct-injection mass spectrometry adds the time dimension to (B)VOC analysis. TRAC-TRENDS IN ANALYTICAL CHEMISTRY**
126. Costa, F; Cappellin, L; Longhi, S; Guerra, W; Magnago, P; Porro, D; Soukoulis, C; Salvi, S; Velasco, R; Biasioli, F; Gasperi, F. (2011) Assessment of apple (*Malus x domestica* Borkh.) fruit texture by a combined acoustic-mechanical profiling strategy. *POSTHARVEST BIOLOGY AND TECHNOLOGY*
127. Schuhfried, E; Biasioli, F; Aprea, E; Cappellin, L; Soukoulis, C; Ferrigno, A; Märk, TD; Gasperi, F. (2011) PTR-MS measurements and analysis of models for the calculation of Henry's law constants of monosulfides and disulfides. *CHEMOSPHERE*
128. Galle, SA; Koot, A; Soukoulis, C; Cappellin, L; Biasioli, F; Alewijn, M; van Ruth, SM. (2011) Typicality and Geographical Origin Markers of Protected Origin Cheese from The Netherlands Revealed by PTR-MS. *JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY*
129. Cappellin, L; Biasioli, F; Schuhfried, E; Soukoulis, C; Märk, TD; Gasperi, F. (2011) Extending the dynamic range of proton transfer reaction time-of-flight mass spectrometers by a novel dead time correction. *RAPID COMMUNICATIONS IN MASS SPECTROMETRY*
130. Dematte, ML; Endrizzi, I; Biasioli, F; Corollaro, ML; Zampini, M; Gasperi, F. (2011) Individual differences in the awareness of odours. *CHEMICAL SENSES*
131. Fabris, A; Biasioli, F; Granitto, PM; Aprea, E; Cappellin, L; Schuhfried, E; Soukoulis, C; Märk, TD; Gasperi, F; Endrizzi, I. (2010) PTR-TOF-MS and data-mining methods for rapid characterisation of agro-industrial samples: influence of milk storage conditions on the volatile compounds profile of Trentingrana cheese. *JOURNAL OF MASS SPECTROMETRY*

132. Cappellin, L; Probst, M; Limtrakul, J; Biasioli, F; Schuhfried, E; Soukoulis, C; Märk, TD; Gasperi, F. (2010) Proton transfer reaction rate coefficients between H<sub>3</sub>O<sup>+</sup> and some sulphur compounds. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
133. Soukoulis, C; Aprea, E; Biasioli, F; Cappellin, L; Schuhfried, E; Märk, TD; Gasperi, F. (2010) Proton transfer reaction time-of-flight mass spectrometry monitoring of the evolution of volatile compounds during lactic acid fermentation of milk. RAPID COMMUNICATIONS IN MASS SPECTROMETRY
134. Cappellin, L; Biasioli, F; Fabris, A; Schuhfried, E; Soukoulis, C; Märk, TD; Gasperi, F. (2010) Improved mass accuracy in PTR-TOF-MS: Another step towards better compound identification in PTR-MS. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
135. Costa, F; Longhi, S; Magnago, P; Porro, D; Gasperi, F; Biasioli, F; Troggio, M; Velasco, R; Salvi, S. (2010) Novel Possibilities for Marker-Assisted Breeding Exploiting the Apple Genome. INTERNATIONAL SYMPOSIUM ON MOLECULAR MARKERS IN HORTICULTURE
136. Bovolenta, S; Corazzin, M; Sacca, E; Gasperi, F; Biasioli, F; Ventura, W. (2009) Performance and cheese quality of Brown cows grazing on mountain pasture fed two different levels of supplementation. LIVESTOCK SCIENCE
137. Gasperi, F; Aprea, E; Biasioli, F; Carlin, S; Endrizzi, I; Pirretti, G; Spilimbergo, S. (2009) Effects of supercritical CO<sub>2</sub> and N<sub>2</sub>O pasteurisation on the quality of fresh apple juice. FOOD CHEMISTRY
138. Aprea, E; Biasioli, F; Carlin, S; Endrizzi, I; Gasperi, F. (2009) Investigation of Volatile Compounds in Two Raspberry Cultivars by Two Headspace Techniques: Solid-Phase Microextraction/Gas Chromatography-Mass Spectrometry (SPME/GC-MS) and Proton-Transfer Reaction-Mass Spectrometry (PTR-MS). JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
139. Endrizzi, I; Biasioli, F; Pirretti, G; Giongo, L; Gasperi, F; Gallerani, G; Calo, D. (2009) A Consumer Sensory Approach to Support the Development of a Fresh Fruit Drink Based on Blueberry. IX INTERNATIONAL VACCINIUM SYMPOSIUM
140. Biasioli, F; Aprea, E; Gasperi, F; Märk, TD. (2009) Measuring odour emission and biofilter efficiency in composting plants by proton transfer reaction-mass spectrometry. WATER SCIENCE AND TECHNOLOGY
141. Zini, E; Biasioli, F; Araghipour, N; Kellerhals, M; Mott, D; Aprea, E; Gasperi, F; Märk, TD; Komjanc, M; Gessler, C. (2009) Proton Transfer Reaction-Mass Spectrometry Analysis Is a Valuable Tool for the Identification of Genomic Regions Related to Volatile Organic Compounds. XII EUCARPIA SYMPOSIUM ON FRUIT BREEDING AND GENETICS
142. Granitto, PM; Biasioli, F; Endrizzi, I; Gasperi, F. (2008) Discriminant models based on sensory evaluations: Single assessors versus panel average. FOOD QUALITY AND PREFERENCE
143. Aprea, E; Biasioli, F; Carlin, S; Märk, TD; Gasperi, F. (2008) Monitoring benzene formation from benzoate in model systems by proton transfer reaction-mass spectrometry. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
144. Bovolenta, S; Sacca, E; Corazzin, M; Gasperi, F; Biasioli, F; Ventura, W. (2008) Effects of stocking density and supplement level on milk production and cheese characteristics in Brown cows grazing on mountain pasture. JOURNAL OF DAIRY RESEARCH
145. Aprea, E; Biasioli, F; Sani, G; Cantini, C; Märk, TD; Gasperi, F. (2008) Online monitoring of olive oils headspace by proton transfer reaction-mass spectrometry. RIVISTA ITALIANA DELLE SOSTANZE GRASSE
146. Granitto, P; Biasioli, F; Furlanello, C; Gasperi, F. (2008) Efficient feature selection for PTR-MS fingerprinting of agroindustrial products. LECTURE NOTES IN COMPUTER SCIENCE
147. Granitto, PM; Gasperi, F; Biasioli, F; Trainotti, E; Furlanello, C. (2007) Modern data mining tools in descriptive sensory analysis: A case study with a Random forest approach. FOOD QUALITY AND PREFERENCE
148. Aprea, E; Biasioli, F; Märk, TD; Gasperi, F. (2007) PTR-MS study of esters in water and water/ethanol solutions: Fragmentation patterns and partition coefficients. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
149. Aprea, E; Biasioli, F; Gasperi, F; Mott, D; Marini, F; Märk, TD. (2007) Assessment of Trentingrana cheese ageing by proton transfer reaction-mass spectrometry and chemometrics. INTERNATIONAL DAIRY JOURNAL
150. Granitto, PM; Biasioli, F; Aprea, E; Mott, D; Furlanello, C; Märk, TD; Gasperi, F. (2007) Rapid and non-destructive identification of strawberry cultivars by direct PTR-MS headspace analysis and data mining techniques. SENSORS AND ACTUATORS B-CHEMICAL
151. Aprea, E; Biasioli, F; Carlin, S; Versini, G; Märk, TD; Gasperi, F. (2007) Rapid white truffle headspace analysis by proton transfer reaction mass spectrometry and comparison with solid-phase microextraction coupled with gas chromatography/mass spectrometry. RAPID COMMUNICATIONS IN MASS SPECTROMETRY



152. Aprea, E; Biasioli, F; Sani, G; Cantini, C; Märk, TD; Gasperi, F. (2006) Proton transfer reaction-mass spectrometry (PTR-MS) headspace analysis for rapid detection of oxidative alteration of olive oil. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
153. Granitto, PM; Furlanello, C; Biasioli, F; Gasperi, F. (2006) Recursive feature elimination with random forest for PTR-MS analysis of agroindustrial products. CHEMOMETRICS AND INTELLIGENT LABORATORY SYSTEMS
154. Carbone, F; Mourgues, F; Biasioli, F; Gasperi, F; Märk, TD; Rosati, C; Perrotta, G. (2006) Development of molecular and biochemical tools to investigate fruit quality traits in strawberry elite genotypes. MOLECULAR BREEDING
155. Aprea, E; Biasioli, F; Gasperi, F; Märk, TD; van Ruth, S. (2006) In vivo monitoring of strawberry flavour release from model custards: effect of texture and oral processing. FLAVOUR AND FRAGRANCE JOURNAL
156. Biasioli, F; Gasperi, F; Aprea, E; Endrizzi, I; Framondino, V; Marini, F; Mott, D; Märk, TD. (2006) Correlation of PTR-MS spectral fingerprints with sensory characterisation of flavour and odour profile of "Trentingrana" cheese. FOOD QUALITY AND PREFERENCE
157. Biasioli, F.; Gasperi, F.; Marini, F.; Märk, TD. (2006) Characterization of strawberry genotypes by PTR-MS spectral fingerprinting: A three year study. ACTA HORTICULTURAE
158. Zini, E; Biasioli, F; Gasperi, F; Mott, D; Aprea, E; Märk, TD; Patocchi, A; Gessler, C; Komjanc, M. (2005) QTL mapping of volatile compounds in ripe apples detected by proton transfer reaction-mass spectrometry. EUPHYTICA
159. Carbone, F; Mourgues, F; Rosati, C; Perrotta, G; Märk, TD; Biasioli, F; Gasperi, F; Mencarellin, F; Tonutti, P. (2005) Microarray and real time PCR analysis of fruit transcriptome in strawberry elite genotypes and correlation with PTR-MS spectra of volatile compounds. ACTA HORTICULTURAE
160. Biasioli, F; Gasperi, F; Odorizzi, G; Aprea, E; Mott, D; Marini, F; Autiero, G; Rotondo, G; Märk, TD. (2004) PTR-MS monitoring of odour emissions from composting plants. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
161. Mott, D; Biasioli, F; Gasperi, F; Aprea, E; Marini, F; Märk, TD (2004) Characterization of strawberry genotypes by PTR-MS spectral finger-printing. PROCEEDINGS OF THE EURO BERRY SYMPOSIUM - COST 836 FINAL WORKSHOP
162. Biasioli, F; Gasperi, F; Aprea, E; Mott, D; Boscaini, E; Mayr, D; Märk, TD. (2003) Coupling proton transfer reaction-mass spectrometry with linear discriminant analysis: a case study. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
163. Biasioli, F; Gasperi, F; Aprea, E; Colato, L; Boscaini, E; Märk, TD. (2003) Fingerprinting mass spectrometry by PTR-MS: heat treatment vs. pressure treatment of red orange juice - a case study. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
164. Biasioli, F; Boschetti, A; Toccoli, T; Iannotta, S; Jordan A; Lindinger, W; Fadanelli, L. (2002) Proton transfer reaction mass spectrometry: A new technique to assess post harvest quality of strawberries ACTA HORTICULTURAE
165. Gasperi, F; Gallerani, G; Boschetti, A; Biasioli, F; Monetti, A; Boscaini, E; Jordan, A; Lindinger, W; Iannotta, S. (2001) The mozzarella cheese flavour profile: a comparison between judge panel analysis and proton transfer reaction mass spectrometry. JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE
166. Biasioli, F; Fiegele, T; Mair, C; Herman, Z; Echt, O; Aumayr, F; Winter, HP; Märk, TD. (2000) Surface-induced dissociation of singly and multiply charged fullerene ions. JOURNAL OF CHEMICAL PHYSICS
167. Iannotta, S; Toccoli, T; Biasioli, F; Boschetti, A; Ferrari, M. (2000) Highly ordered films of quaterthiophene grown by seeded supersonic beams. APPLIED PHYSICS LETTERS
168. Fiegele, T; Echt, O; Biasioli, F; Mair, C; Märk, TD. (2000) Surface-induced reactions of C-n(+), 50 <= n <= 60. CHEMICAL PHYSICS LETTERS
169. Ciullo, G; Biasioli, F; Podesta, A; Milani, P; Toccoli, T; Iannotta, S. (2000) Synthesis of SiC on Si by seeded supersonic beams of fullerenes. FUNDAMENTAL MECHANISMS OF LOW-ENERGY-BEAM-MODIFIED SURFACE GROWTH AND PROCESSING Book Series: MATERIALS RESEARCH SOCIETY SYMPOSIUM PROCEEDINGS
170. Milani, P; Iannotta, S; Biasioli, F; Piseri, P; Barborini, E. (1999) NANOPHASE AND NANOCOMPOSITE MATERIALS III Book Series: MATERIALS RESEARCH SOCIETY SYMPOSIUM PROCEEDINGS
171. Scheier, P; Dunser, B; Senn, G; Drexel, H; Winter, HP; Aumayr, F; Betz, G; Biasioli, F; Fiegele, T; Märk, TD. (1999) Stability of multiply charged fullerene ions. EUROPEAN PHYSICAL JOURNAL D
172. Mair, C; Fiegele, T; Biasioli, F; Märk, TD. (1999) Low energy acetone dimer ion/surface collisions studied with high energy resolution. EUROPEAN PHYSICAL JOURNAL D

173. Boschetti, A; Biasioli, F; van Opbergen, M; Warneke, C; Jordan, A; Holzinger, R; Prazeller, P; Karl, T; Hansel, A; Lindinger, W; Iannotta, S. (1999) PTR-MS real time monitoring of the emission of volatile organic compounds during postharvest aging of berryfruit. POSTHARVEST BIOLOGY AND TECHNOLOGY
174. Biasioli, F; Fiegele, T; Mair, C; Senn, G; Matt, S; David, R; Sonderegger, M; Stamatovic, A; Scheier, P; Märk, TD. (1999) Spontaneous and induced dissociation of singly and multiply charged fullerene ions. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
175. Mair, C; Fiegele, T; Biasioli, F; Herman, Z; Märk, TD. (1999) Surface-induced reactions of acetone cluster cations. JOURNAL OF CHEMICAL PHYSICS
176. Mair, C; Fiegele, T; Biasioli, F; Futrell, JH; Herman, Z; Märk, TD. (1999) Surface-induced chemical reactions of cluster ions: competitive processes of protonated acetone formation in acetone dimer-surface collisions. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY
177. Mair, C; Fiegele, T; Biasioli, F; Worgotter, R; Grill, V; Lezius, M; Märk, TD. (1999) Surface-induced reactions of polyatomic ions and cluster ions. PLASMA SOURCES SCIENCE & TECHNOLOGY
178. Biasioli, F; Boschetti, A; Piseri, P; Milani, P; Iannotta, S. (1999) Reply to "Comment on: Photofragmentation of C-60 in seeded supersonic molecular beams: effects of ro-vibrational cooling". CHEMICAL PHYSICS LETTERS
179. Barborini, E; Piseri, P; Mutti, S; Milani, P; Biasioli, F; Iannotta, D; Gialanella, S. (1998) Synthesis of nanocrystalline TiNi thin films by cluster beam deposition. NANOSTRUCTURED MATERIALS
180. Mair, C; Fiegele, T; Biasioli, F; Märk, TD. (1998) Ion-surface reaction studies relevant to fusion edge plasmas. CZECHOSLOVAK JOURNAL OF PHYSICS
181. Biasioli, F; Boschetti, A; Barborini, E; Piseri, P; Milani, P; Iannotta, S. (1997) Photofragmentation of C-60 in seeded supersonic molecular beams: Effect of ro-vibrational cooling. CHEMICAL PHYSICS LETTERS
182. Biasioli, F; Karwasz, GP; Iannotta, S. (1996) Photoionization of fullerene in presence of electron scavengers. 18<sup>TH</sup> SPIG - 18<sup>TH</sup> SUMMER SCHOOL AND INTERNATIONAL SYMPOSIUM ON THE PHYSICS OF IONIZED GASES: CONTRIBUTED PAPERS & ABSTRACTS OF INVITED LECTURES AND PROGRESS REPORTS

## Personal skills and competences

Other languages(Self-assessment *)	Mother tongue		Speaking		Writing
	Italian	Understanding	Spoken interaction	Spoken production	
<b>English</b>	Proficient user C1	Proficient user C1	Independent user B2	Independent user B2	Independent user B2
<b>German</b>	Independent user C1	Independent user C1	Independent user B2	Independent user B2	Independent user B1

(\*) Common European Framework of Reference for Languages

Technical skills and competences	Experience in several technological and scientific methodologies as mass spectrometry, ion optics, electron optics, vacuum technique, laser, chemometrics, data mining, statistics.
Participation to various courses and schools as	Interfacing computers with measuring instruments (University of Padova, Padova, 1997) Ion molecules interactions ( University of Trento – Candirai, TN 1998) ISSAST97 Surface physics school (IRST- Trento 1997) In situ diagnostics of vacuum systems and processes, ITC –Trento 1998 Techniques and application of laser beams, University of Gdansk – 1997 Statistical analysis of sensory and consumer data, Matforsk, Ås, Norway, 2000 Statistica Applicata alla ricerca biologica e ambientale, San Michele a/A, 2008
Computer skills and competences	Proficient user of standard software (Office), operating systems (Windows), programming languages (FORTRAN, PASCAL, BASIC, R) and scientific and technical software for statistical analysis, data manipulation and visualisation, technical drawing, ion optic simulations and bibliographic management (ORIGIN, AUTOCAD, SIMION, MATCAD, SENSTOOLS, BIBUS, PROCITE, ZOTERO and others).

S. Michele all'Adige 2.3.2020

Franco Biasioli  
