



Federica Gulino

Curriculum vitae

PERSONAL DATA: Born in Turin, Italy on 25/07/1992.

BIO AND EDUCATION:

She graduated in Chemical Sciences in 2020 with 110/110 cum laude from the Università degli Studi del Piemonte Orientale "Amedeo Avogadro" (UPO) from Alessandria (AI), with a thesis entitled: "*Studio di zonazione del Nizza D.O.C.G. mediante tecniche spettroscopiche e cromatografiche e analisi multivariata dei dati*". She obtained her Habilitation to practice as an Agro-Technician in 2023 at the Collegio Nazionale degli Agrotecnici e Agrotecnici Laureati and as a Chemist in 2022 at the Alma Mater Studiorum, Università of Bologna (BO). She is co-author of six publications in national and international journals. She currently holds the position of PhD student in the 38th Cycle of the Doctoral Course "Sustainable Development and Cooperation" (SUSTNET), at the Università di Torino (TO) in consortium with the Università degli Studi del Piemonte Orientale "Amedeo Avogadro" (UPO).

MAIN FIELDS OF INTEREST:

1. Analytical Chemistry;
2. Food and environmental safety;
3. Product characterization, traceability and authentication studies;
4. Elemental analysis;
5. Chemometrics.

CURRENT ISSUES OF RESEARCH:

- **Chemical characterisation of agri-food chains:** Characterisation of products of plant origin (almonds, truffles, kiwi, grapes, wine, hazelnuts, chestnuts, honey, rice etc.), soils, water and food waste by chromatography (ionic chromatography, GC-MS and HPLC-MS) and elemental analysis (ICP-MS and ICP-OES).

- **Food monitoring and traceability:** Implementation of advanced monitoring and traceability systems for agri-food supply chains (wine, oil, truffles, almonds, honey, rice, food waste etc.) to guarantee transparency and quality control throughout the supply chain by elemental analysis (ICP-MS and ICP-OES) and determination of rare earth elements (REE).

PAPERS:

Trotti, J.; Trapani, I.; **Gulino, F.**; Aceto, M.; Minio, M.; Gerotto, C.; Mica, E.; Valè, G.; Barbato, R.; Pagliano, C. *Physiological Responses to Salt Stress at the Seedling Stage in Wild (*Oryza rufipogon* Griff.) and Cultivated (*Oryza sativa* L.) Rice*. *Plants* **2024**, *13*, 369. DOI: <https://doi.org/10.3390/plants13030369>

Gulino, F.; Calà, E.; Cozzani, C.; Vaccari, L.; Oddone, M.; Aceto, M. *On the Traceability of Honey by Means of Lanthanide Distribution*. *Foods* **2023**, *12*, 1803. DOI: <https://doi.org/10.3390/foods12091803>.

Aceto, M.; Calà, E.; **Gulino, F.**; Gullo, F.; Labate, M.; Agostino, A.; Picollo M. *The Use of UV-Visible Diffuse Reflectance Spectrophotometry for a Fast, Preliminary Authentication of Gemstones*. *Molecules* **2022**, *27* (15), 4716. DOI: <https://doi.org/10.3390/molecules27154716>.

Calà, E.; Fracchia, A.; Robotti, E.; **Gulino, F.**; Gullo, F.; Oddone, M.; Massacane, M.; Cordone, G.; Aceto, M. *On the Traceability of the Hazelnut Production Chain by Means of Trace Elements*. *Molecules* **2022**, *27* (12), 3854. DOI: <https://doi.org/10.3390/molecules27123854>

Cassino, C.; Tsolakis, C.; **Gulino, F.**; Vaudano, E.; Osella, D. *The effects of sulphur dioxide on wine metabolites: New insights from 1H NMR spectroscopy based in-situ screening, detection, identification and quantification*. *LWT* **2021**, *145*, 111296. DOI: <https://doi.org/10.1016/j.lwt.2021.111296>.

Aceto, M.; **Gulino, F.**; Calà, E.; Robotti, E.; Petrozziello, M.; Tsolakis, C.; Cassino, C. *Authentication and Traceability Study on Barbera d'Asti and Nizza DOCG Wines: The Role of Trace- and Ultra-Trace Elements*. *Beverages* **2020**, *6*(4), 63. DOI: <https://doi.org/10.3390/beverages6040063>.