



Chiara Cordero

Lecture:

Engineering Multidimensional Chromatography for Practical Food Volatilomics

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Bio: Chiara Cordero (orcid.org/0000-0003-3201-0775) is Full Professor of Food Chemistry at the Department of Drug Science and Technology, University of Turin (Italy).

Her research activity is centered on advanced analytical platforms for food-omics, with particular emphasis on comprehensive two-dimensional gas chromatography (GC×GC) coupled to mass spectrometry for profiling and fingerprinting of complex food matrices. She has contributed to the development of structured data processing strategies for GC×GC interpretation, enabling marker discovery in food metabolomics and volatilomics, as well as intake marker identification in biofluids within nutrimental frameworks. Her work also includes the design of miniaturized, fully automated, solvent-free sample preparation approaches for sensomic characterization and quality assessment.

Her scientific production (update February 2026) includes 168 peer-reviewed papers in international journals, 16 book chapters, and the editorship of the volume *Characterization of Odorant Patterns by Comprehensive Two-Dimensional Gas Chromatography* (*Comprehensive Analytical Chemistry*, Vol. 96, Elsevier). She has delivered 170 oral and poster communications at national and international conferences. According to Scopus, her work has received 6,040 citations from 3,903 documents, with an H-index of 46, in collaboration with over 300 co-authors.

She has received several international recognitions, including the “Leslie S. Ettre Award” (2008) for original research in capillary gas chromatography applied to food and environmental safety, and the “John B. Phillips Award” (2014) for achievements in GC×GC. In 2022, she was honored with the Scientific Achievement Award in GC×GC. In 2024, she received the “Giovanni Dugo Medal” from the Italian Chemical Society for her contributions to food analysis. The *Analytical Scientist* included her in the 2016 “Women Power List” of the 50 most influential women in analytical science and again in the 2025 “Power List” for her commitment to bridging analytical innovation with real-world relevance.