

CURRICULUM VITAE ROSARIA COZZOLINO

INFORMAZIONI PERSONALI

Cognome, Nome	ROSARIA COZZOLINO
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ORCID /SCOPUS	https://orcid.org/0000-0003-1501-2648/ scopus id: 6603671227
Nazionalità	ITALIANA

ESPERIENZA LAVORATIVA

Date (2006 – presente)	12_2006 - PRESENTE
Nome del datore di lavoro	Consiglio Nazionale delle Ricerche, Istituto di Scienze dell'Alimentazione (ISA)
Tipo di azienda o settore	Istituto di ricerca pubblico National Research Council of Italy, Institute of Polymers, Composites and Biomaterials (IPCB) Catania
Funzione o posizione	Ricercatore III livello
Date (2001 – 2006)	02_2001 – 11_2006
Nome del datore di lavoro	Consiglio Nazionale delle Ricerche, Istituto per i Polimeri, Compositi e Biomateriali (IPCB) sez Catania
Tipo di azienda o settore	Istituto di ricerca pubblico
Funzione o posizione	Ricercatore III livello

ISTRUZIONE E FORMAZIONE

Periodo (1997 – 2001)	
Nome e tipo di istituto di istruzione	Università degli Studi di Catania
Qualifica conseguita	Dottorato di Ricerca in Scienze Chimiche (XIII Ciclo)
Periodo (1989 – 1995)	
Nome e tipo di istituto di istruzione	Università degli Studi di Napoli "Federico II"
Funzione o posizione	Laurea in Chimica

MADRELINGUA **ITALIANO**

ALTRE LINGUE

	INGLESE
Lettura	C1
Scrittura	C1
Espressione orale	C1

FORMAZIONE

Periodo (2021 – 2021)
Nome e tipo di istituto di
istruzione
Funzione o posizione

Consiglio Nazionale delle Ricerche Programma di Short Term Mobility 2021
Università di Madeira (Portogallo)
Visiting Researcher

Periodo (1995 – 1996)
Nome e tipo di istituto di
istruzione
Funzione o posizione

University of Warwick, Coventry (UK)
Borsa di Studio del CNR nell'ambito di un programma TMR Comunitario

Periodo (1996 – 1997)
Nome e tipo di istituto di
istruzione
Funzione o posizione

Consiglio Nazionale delle Ricerche, Istituto per i Polimeri, Compositi e Biomateriali (IPCB) sez
Catania
Borsa di Studio del CNR, Comitato Scienze Chimiche (1996-1997) Bando n° 201.03.23 Codice n°
21.03.00

Attività di ricerca/Progetti

Attività di ricerca

L'attività di ricerca è stata da sempre svolta nel campo delle metodologie di Spettrometria di Massa. Le principali linee di ricerca riguardano 1) Analisi strutturale degli oligosaccaridi e di polisaccaridi mediante Post-source decay MALDI-TOF, 2) Studio strutturale dei polimeri sintetici mediante Post-source decay MALDI-TOF, 3) Analisi di miscele proteiche e studi proteomici mediante tecniche avanzate di spettrometria di massa (Post-source decay MALDI TOF, LC-MS).

Recentemente, l'interesse di ricerca della Dott.ssa Rosaria Cozzolino si è concentrato sulla Chimica degli Alimenti: chimica dei composti volatili - sviluppo di metodologie, studio delle proprietà aromatiche e degli effetti biologici. Sviluppo di metodologie per l'estrazione e l'analisi di composti volatili e diversi metaboliti secondari bioattivi da diverse matrici alimentari (HS SPME; GC-MS, E-Nose, LC-MS)

Nell'analisi clinica, l'interesse è focalizzato sulla validazione di approcci analitici basati sullo studio del profilo volatile da fluidi biologici (es. urina) che possano fornire le basi biochimiche per studiare patologie o che possano essere implementati come strumento diagnostico come strategie di campionamento non invasive. Studi di volatomica e urinomica relativi ad autismo, obesità, malattie non trasmissibili.

Responsabilità Progetti di Ricerca

2008-2009: “Sviluppo delle Esportazioni di Prodotti Agroalimentari del Mezzogiorno”
Development of exports of agricultural and food products in the Southern Italy. Intesa di programma MIUR/CNR per il Mezzogiorno, Delibera CdA n. 200/2008 Verbale 85.

Partecipazione Progetti di Ricerca (Principali)

2019-in corso P.S.R. Regione Campania 2014-2020-Tipologia 10.2.1 “Diversità, conservazione e valorizzazione delle specie legnose da frutto autoctone campane (DICOVALE)”.

2019-2021 ADViSE (Antitumor Drugs and Vaccines from SEea). POR-FESR Regione Campania 2014-2020

2013-2016 Benessere dalle Biotecnologie: Nuovi Processi e Prodotti per la Nutraceutica, la Cosmeceutica e la Nutrizione umana (BenTen). Wellness from Biotechnology: New Processes and Products for Nutraceuticals, Cosmeceutics and Human Nutrition POR-FESR Regione Campania

2013-2016 PRIN project: "Impact of functional and/or nutraceutical foods containing polyphenols on energy and glyco-lipid metabolism, sub-clinical inflammation, gene expression and epigenetic modifications in experimental models and in humans" Prot. 2010JCWWKM_003

2012-2015 PSR Regione Basilicata 2007/2013 MISURA 124 “Strategie ecosostenibili per la produzione di formaggi a pasta filata lucani di qualità (QUALIFORM)”. Eco-sustainable strategies for the production of quality Lucan spun curd cheeses

2012-2015 Project “Nuove Rotte: Blu Economy ”DDG n. 1895/2 del 22 may 2012

2012-2015 PON Project - Technologies and operating models for the sustainable management of the food supply chain through the enhancement of biological waste from production for energy purposes, the reduction of food waste in the distribution system and from consumers and the treatment and enhancement of the edible fraction of urban solid waste” (BE & SAVE). PON “Ricerca e Competitività 2007-2013” PON05a2_F

2012-2015 POR FESR 2007-2013 Regione Campania, - “Qualità delle produzioni tipiche campane ed il suo territorio: approcci innovativi ed integrati per rafforzare la competitività del sistema Agroalimentare – CAMPUS-QUARC. Quality of typical Campania products and its territory: innovative and integrated approaches to strengthen the competitiveness of the Agri-food system

2010-2014 “New Polis” Decreto Interministeriale 65/CONT/V/2008 DGR n. 2130 - ex Art. 26 Legge n. 845/78. Decreto Interministeriale 65/CONT/V/2008 DGR n. 2130 - ex Art. 26 Legge n. 845/78

2011-2014 Project for the innovation and development of the Southern Italy “Sostenibilità e innovazione del made in Italy agroalimentare CISIA” "Integrated knowledge for the sustainability and innovation of Made in Italy Agri-food"

2007-2010 Progetto “Mapping And Comparing Oils (MAC-Oils)" Specific Support Action, Food Quality and Safety Priority, EU FP6 (www.mac-oils.eu).

2002-2004 Progetto “Trattamento di prodotti freschi altamente deperibili per garantirne qualità, sicurezza e salubrità – PROFSICURI”. MIUR (Legge 449/97-99, Anno 1999. Settore: 2. Agrobiotecnologie

Attività di referaggio

Referaggio di riviste scientifiche, quali J. Chromatogr. A, J. Chromatogr. B, Talanta, Food Chem.; J. Food Compos. Anal.; Anal. Chimica Acta, Agronomy, Molecules, Horticulturae, Foods (publons.com /researcher/3863140/rosaria-cozzolino/). Guest Editor di Special Issues in Foods (MDPI) and Food Nutrition (Frontiers).

Produzione scientifica

Cozzolino, R, Pace B, Palumbo M, Laurino C, Picariello G, Siano F, De Giulio B, Pelosi S, Cefola M (2021) *Profiles of Volatile and Phenolic Compounds as Markers of Ripening Stage in Candonga Strawberries*. Foods 2021, 10, 3102. <https://doi.org/10.3390/foods10123102>

Cozzolino R, Cefola M, Laurino C, Pellicano MP, Palumbo M, Stocchero M and Pace B (2021) *Electronic-Nose as Non-destructive Tool to Discriminate “Ferrovia” Sweet Cherries Cold Stored in Air or Packed in High CO2 Modified Atmospheres*. Front. Nutr. 8, 720092. <https://doi.org/fnut.2021.720092>

Cozzolino R, Malorni L, Martignetti A, et al. *Comparative analysis of volatile profiles and phenolic compounds of Four Southern Italian onion (Allium cepa L.) Landraces* J Food Comp Anal 2021, 101, 103990 <https://doi.org/10.1016/j.jfca.2021.103990>

Cozzolino R, Mari A, Ramezani S, et al. *Assessment of volatile compounds as potential markers of water deficit stress of two wild ecotypes of Salvia reuterana Boiss* J Food Comp Anal 2021, 100, 103939 <https://doi.org/10.1016/j.jfca.2021.103939>

Cozzolino R, Martignetti A, De Giulio B, et al. *SPME GC-MS monitoring of volatile organic compounds to assess typicity of Pecorino di Carmasciano ewe-milk cheese* Int J Dairy Technol 2021, 74, 383 <https://doi.org/10.1111/1471-0307.12756>

Cozzolino R, De Giulio B, Pellicano MP, et al. *Volatile, quality and olfactory profiles of fresh-cut polignano carrots stored in air or in passive modified atmospheres* LWT-Food Sci Technol 2020, 137 <https://doi.org/10.1016/j.lwt.2020.110408>

Cozzolino R, De Giulio B, Petriccione M, et al. *Comparative analysis of volatile metabolites, quality and sensory attributes of Actinidia chinensis fruit*. Food Chem 2020, 316, 126340 <https://doi.org/10.1016/j.foodchem.2020.126340>

Cozzolino R, Martignetti A, Cefola M, et al. *Volatile Metabolites, Quality and Sensory Parameters of "Ferrovia" Sweet Cherry Cold Stored in Air or Packed in High CO₂ Modified Atmospheres*. Food Chem 2019, 286, 659. <https://doi.org/10.1016/j.foodchem.2019.02.022>

Nazzaro F, Fratianni F, **Cozzolino R**, et al. *Antibacterial Activity of Three Extra Virgin Olive Oils of the Campania Region, Southern Italy, Related to Their Polyphenol Content and Composition*. Microorganisms 2019, 7, 321. <https://doi.org/10.3390/microorganisms7090321>

Fratianni F, **Cozzolino R**, Martignetti A, et al. *Biochemical composition and antioxidant activity of three extra virgin olive oils from the Irpinia Province, Southern Italy*. 2019 Food Sci Nutr 2019, 7, 3233. <https://doi.org/10.1002/fsn3.1180>

Cozzolino R, Cefola M, Pace B, et al. *Quality, sensory and volatile profiles of fresh-cut big top nectarines cold stored in air or modified atmosphere packaging* Int J Food Sci Techn 2018, 1. <https://doi.org/10.1111/ijfs.13758>

Cozzolino R, De Giulio B, Marena P, et al. *Urinary volatile organic compounds in overweight compared to normal-weight children: results from the Italian I.Family cohort*. Sci Rep. 2017, 15636. <https://doi.org/10.1038/s41598-017-15957-7>

Fratianni F, Cefola M, Pace B, **Cozzolino R**, et al. *Changes in visual quality, physiological and biochemical parameters assessed during the postharvest storage at chilling or non-chilling temperatures of three sweet basil (*Ocimum basilicum* L.) cultivars*. Food Chem 2017 229, 752. <https://doi.org/10.1016/j.foodchem.2017.02.137>

Cozzolino R, Pace B, Cefola M, et al. *Assessment of volatile profile as potential marker of chilling injury of basil leaves during postharvest storage* Food Chem 2016 213, 361. <https://doi.org/10.1016/J.FOODCHEM.2016.06.109>

Cozzolino R, Martignetti A, Pellicano MP, et al. *Characterization of volatile profile and sensory analysis of fresh-cut "Radicchio di Chioggia" stored in air or modified atmosphere* Food Chem 2016, 192, 603. <https://doi.org/10.1016/j.foodchem.2016.06.109>

Malorni L, Martignetti A, **Cozzolino R** *Volatile Compound Profiles by HS GC-MS for the Evaluation of Postharvest Conditions of a Peach Cultivar*. Ann Chromatogr Sep Tech. 2015, 1, 1007.

Cozzolino R, Ramezani S, Martignetti A, et al. *Determination of volatile organic compounds in the dried leaves of *Salvia* species by solid-phase microextraction coupled to gas chromatography mass spectrometry* Nat Prod Res 2015, 30, 841. <https://doi.org/10.1080/14786419.2015.1076817>

Cozzolino R, De Magistris L, Saggese P, et al. *Use of solid-phase microextraction coupled to gas chromatography–mass spectrometry for determination of urinary volatile organic compounds in autistic children compared with healthy controls*. Anal Bioanal Chem 2014, 406, 4649. <https://doi.org/10.1080/10.1007/s00216-014-7855-z>

Boscaino F, Acierno V, Saggese P, **Cozzolino R**, et al. (2014) *Effectiveness of vacuum devices for home storage of rainbow trouts from game fishing lakes*. African J Sci Res 2, 16-22 ISSN: 2306-5877

R. Giacco, B. De Giulio, M. Vitale, **R. Cozzolino** (2013) *Functional Foods: Can Food Technology Help in the Prevention and Treatment of Diabetes?* Food and Nutrition Sciences 4, 827-837

Sorrentino A., Boscaino F., **Cozzolino R.**, et al. (2013) *Characterization of Free Volatile Compounds in Fiano Wine Produced by Different Selected Autochthonous Yeasts* Chemical Engineering Transactions 32, 1837-1842

Sorrentino A., Boscaino F., **Cozzolino R.**, et al. (2012) *Autochthonous Fermentation Starters for the Production of Aglianico Wines* Chemical Engineering Transactions 27, 211-216

Rocco M., Malorni L., **Cozzolino R.**, et al. (2011) *Proteomic Profiling of Human Melanoma Metastatic Cell Line Secretomes* J. Proteome Res 10, 4703-4714

Cozzolino R. e De Giulio B. (2011) *Application of ESI and MALDI-TOF MS for triacylglycerols analysis in edible oils* Eur. J. Lipid Sci. Technol. 113, 160–167

Cozzolino R., Malvagna P., Spina E., et al. (2006) *Structural analysis of the polysaccharides from *Echinacea angustifolia* radix* Carbohydrate Polymer. 65, 263

Cozzolino R., Gallagher R. T., Drewello T. (2006) *Efficient clustering of cyclic sulphonium salts applying liquid secondary ion mass spectrometry* European Journal of Mass Spectrometry 12, 31

Mazzone MG., Santocono M., Perez M., Messina A., **Cozzolino R.**, et al. (2005) *Proteomics of Human Tear Fluids in Healthy and Patological Conditions* The Ocular Surface 3, S91

Alberghino G., **Cozzolino R.**, Fisichella S., et al. (2005) *Proteomics of gluten: mapping of the 1Bx7 glutenin subunit in Chinese Spring cultivar by matrix-assisted laser*

desorption/ionization Rapid Commun. Mass Spectrom. 19, 2069

Cozzolino R., Perez M., Messina A., et al. "Proteomic Analysis of Human Tear Fluids in Healthy and Pathological Conditions" 53th ASMS Conference on Mass Spectrometry and Allied Topics, San Antonio, Texas, 5-9, Giugno, 2005 (Primo Autore)

Cozzolino R., Passalacqua S., Salemi S., et al. "Identification of some adulteration in milk and in water buffalo mozzarella cheese by MALDI TOF MS" 51st Conference on Mass Spectrometry and Allied Topics, Montreal, Canada, Giugno 2003 (Primo Autore)

Cozzolino R., Passalacqua S., Salemi S., et al. (2002) *Identification of adulteration in water buffalo mozzarella and in ewe cheese by using whey proteins as biomarkers and matrix-assisted laser desorption/ionisation mass spectrometry* J. Mass Spectrom. 37, 985

Malvagna P., Impallomeni G., **Cozzolino R.**, et al. (2002) *New results on matrix-assisted laser desorption/ionisation mass spectrometry of widely polydisperse hydrosoluble polymers* Rapid Commun. Mass Spectrom. 16, 1599

Malvagna P., Impallomeni G., **Cozzolino R.**, et al. "New Results on MALDI MS of Widely Polydisperse Hydrosoluble Polymers" 50th ASMS Conference on Mass Spectrometry and Allied Topics, Orlando, Florida, 2-6 Giugno, 2002

Cozzolino R., Enea V., Mazzone M.G., Garozzo D. "Identification of High Molecular Mass Proteins in Tear Fluid by MALDI MS" 50th ASMS Conference on Mass Spectrometry and Allied Topics, Orlando, Florida, 2-6 Giugno, 2002

Cozzolino R., Passalacqua S., Salemi S., et al. (2001) *Identification of adulteration in milk by MALDI-TOF MS* J. Mass Spectrom. 36, 1031

Cozzolino R., Di Giorgi S., Fisichella S., et al. (2001) *Proteomics of gluten: mapping of subunit 1Ax2* in Cheyenne cultivar by matrix-assisted laser desorption/ionization* Rapid Communication in Mass Spectrometry 15, 1129

Cozzolino R., Di Giorgi S., Fisichella S., et al. (2001) *Matrix-assisted laser desorption/ionization mass spectrometric peptide mapping of high molecular weight glutenin subunits 1Bx7 and 1Dy10 in Cheyenne cultivar* Rapid Communication in Mass Spectrometry 15, 778

Spina E., **Cozzolino R.**, Ryan E., Garozzo D. (2000) *Sequencing of oligosaccharides by collision-induced dissociation matrix-assisted laser desorption/ionization mass spectrometry* J. Mass Spectrom. 35, 1042

Garozzo D., Spina E., **Cozzolino R.**, et al. (2000) *Studies on the primary structure of short polysaccharide using SEC-MALDI mass spectrometry* Carbohydrate Research 323, 139

Garozzo D., **Cozzolino R.**, Di Giorgi S., et al. (1999) *Use of hydroxyacetophenones as matrices for the analysis of high molecular weight glutenin mixtures by matrix-assisted laser desorption/ionization mass spectrometry* Rapid Communication in Mass Spectrometry 13, 2084

Bonomo R.P., Boudet A.M., **Cozzolino R.**, et al. (1998) *A comparative study of two isoforms of laccase secreted by the "white-rot" fungus Rigidoporus Lignosus, exhibiting significant structural and functional differences* Journal of Inorganic Biochemistry 71, 205

Amoresano A., Andolfo A., Siciliano R.A., **Cozzolino R.**, et al. (1998) *Analysis of Human Serum Albumin variants by mass spectrometry procedures* Biochimica et Biophysica Acta 1384, 79 (continued as BBA-Proteins Proteom.)

Scaloni A., Camoni L., di Giorgio D., Scortichini M., **Cozzolino R.**, Ballio A. (1997) *A new syringopeptin produced by a Pseudomonas Syringae PV. Syringae strain isolated from diseased twigs of laurel* Physiological and Molecular Plant Pathology 51, 259

Cozzolino R., Belgacem O., Drewello T., et al. (1997) *Laser desorption/ionization of fluorinated fullerenes* European Mass Spectrometry 3, 407

Data, 06 Dicembre 2021

Pubblicazioni (principali)

- Cozzolino R**, Cefola M, Laurino C, Pellicano MP, Palumbo M, Stocchero M and Pace B (2021) *Electronic-Nose as Non-destructive Tool to Discriminate “Ferrovia” Sweet Cherries Cold Stored in Air or Packed in High CO₂ Modified Atmospheres*. *Front. Nutr.* 8:720092. <https://doi.org/fnut.2021.720092>
- Cozzolino R**, Malorni L, Martignetti A, et al. *Comparative analysis of volatile profiles and phenolic compounds of Four Southern Italian onion (Allium cepa L.) Landraces* *J Food Comp Anal* 2021, 101, 103990 <https://doi.org/10.1016/j.jfca.2021.103990>
- Cozzolino R**, Mari A, Ramezani S, et al. *Assessment of volatile compounds as potential markers of water deficit stress of two wild ecotypes of Salvia reuterana Boiss* *J Food Comp Anal* 2021, 100, 103939 <https://doi.org/10.1016/j.jfca.2021.103939>
- Cozzolino R**, Martignetti A, De Giulio B, et al. *SPME GC-MS monitoring of volatile organic compounds to assess typicality of Pecorino di Carmasciano ewe-milk cheese* *Int J Dairy Technol* 2021, 74, 383 <https://doi.org/10.1111/1471-0307.12756>
- Cozzolino R**, De Giulio B, Pellicano MP, et al. *Volatile, quality and olfactory profiles of fresh-cut polignano carrots stored in air or in passive modified atmospheres* *LWT- Food Sci Technol* 2020, 137 <https://doi.org/10.1016/j.lwt.2020.110408>
- Cozzolino R**, De Giulio B, Petriccione M, et al. *Comparative analysis of volatile metabolites, quality and sensory attributes of Actinidia chinensis fruit*. *Food Chem* 2020, 316, 126340 <https://doi.org/10.1016/j.foodchem.2020.126340>
- Cozzolino R**, Martignetti A, Cefola M, et al. *Volatile Metabolites, Quality and Sensory Parameters of “Ferrovia” Sweet Cherry Cold Stored in Air or Packed in High CO₂ Modified Atmospheres*. *Food Chem* 2019, 286, 659. <https://doi.org/10.1016/j.foodchem.2019.02.022>.
- Nazzaro F, Fratianni F, **Cozzolino R**, et al. *Antibacterial Activity of Three Extra Virgin Olive Oils of the Campania Region, Southern Italy, Related to Their Polyphenol Content and Composition*. *Microorganisms* 2019, 7, 321. <https://doi.org/10.3390/microorganisms7090321>
- Fratianni F, **Cozzolino R**, Martignetti A, et al. *Biochemical composition and antioxidant activity of three extra virgin olive oils from the Irpinia Province, Southern Italy*. *2019 Food Sci Nutr* 2019, 7, 3233. <https://doi.org/10.1002/fsn3.1180>
- Cozzolino R**, Cefola M, Pace B, et al. *Quality, sensory and volatile profiles of fresh-cut big top nectarines cold stored in air or modified atmosphere packaging* *Int J Food Sci Technol* 2018, 1. <https://doi.org/10.1111/ijfs.13758>.
- Cozzolino R**, De Giulio B, Marena P, et al. *Urinary volatile organic compounds in overweight compared to normal-weight children: results from the Italian I.Family cohort*. *Sci Rep.* 2017, 15636. <https://doi.org/10.1038/s41598-017-15957-7>
- Fratianni F, Cefola M, Pace B, **Cozzolino R**, et al. *Changes in visual quality, physiological and biochemical parameters assessed during the postharvest storage at chilling or non-chilling temperatures of three sweet basil (Ocimum basilicum L.) cultivars*. *Food Chem* 2017 229, 752. <https://doi.org/10.1016/j.foodchem.2017.02.137>
- Cozzolino R**, Pace B, Cefola M, et al. *Assessment of volatile profile as potential marker of chilling injury of basil leaves during postharvest storage* *Food Chem* 2016 213, 361. <https://doi.org/10.1016/J.FOODCHEM.2016.06.109>
- Cozzolino R**, Martignetti A, Pellicano MP, et al. *Characterization of volatile profile and sensory analysis of fresh-cut “Radicchio di Chioggia” stored in air or modified atmosphere* *Food Chem* 2016, 192, 603. <https://doi.org/10.1016/j.foodchem.2016.06.109>
- Malorni L, Martignetti A, **Cozzolino R** *Volatile Compound Profiles by HS GC-MS for the Evaluation of Postharvest Conditions of a Peach Cultivar*. *Ann Chromatogr Sep Tech.* 2015, 1, 1007.
- Cozzolino R**, Ramezani S, Martignetti A, et al. *Determination of volatile organic compounds in the dried leaves of Salvia species by solid-phase microextraction coupled to gas chromatography mass spectrometry* *Nat Prod Res* 2015, 30, 841. <https://doi.org/10.1080/14786419.2015.1076817>
- Cozzolino R**, De Magistris L, Saggese P, et al. *Use of solid-phase microextraction coupled to gas chromatography–mass spectrometry for determination of urinary volatile organic compounds in autistic children compared with healthy controls*. *Anal Bioanal Chem* 2014, 406, 4649. <https://doi.org/10.1080/10.1007/s00216-014-7855-z>