CV ai fini della pubblicazione

GIACOMO DI MATTEO
Curriculum Vitae

Place Roma
Date 27/02/2023

Part I – General Information

Full Name	Giacomo Di Matteo
Spoken Languages	Italian, English, Spanish

Part II – Education

IIA – Academic Education

Type	Year	Institution	Notes (Degree, Experience,…)
University graduation	2019	Università degli Studi 'G. d'Annunzio' Chieti - Pescara	Pharmaceutical Chemistry and Technology (Laurea Specialistica a ciclo unico – classe LM-13)
PhD	2022	Sapienza University of Rome	Molecular design and characterization for the promotion of health and well-being: from drug to food (XXXV cycle)
Fellowship	2022-present	Sapienza University of Rome	"Annalaura Segre - Donatella Capitani" fellowship of GIDRM: "Metabolomic Insight into Kombucha fermentation process through 1H NMR Spectroscopy"

II B – Other training course

Year	Institution	Notes (Degree, Experience,…)
18-22/07/2022	Turin. University of Turin (TO), Italy.	XXIV School of NMR – GIDRM
11-13/01/2022	Virtual. Hotel NH Milano Touring (MI), Italy	School of NIR Spectroscopy – SISNIR
12-15/07/2021	Virtual. University of Turin (TO), Italy.	XXIII School of NMR – GIDRM
7-10/06/2021	Virtual. Wageningen University, Netherlands	2st International Course 'Healthy Food Design'
11,18/12/2020	Virtual. University of Genova (GE), Italy	The chemometric school of Genova
20-23/07/2020	Virtual. University of Turin (TO), Italy	XXII School of NMR – GIDRM

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
11/2022	present	Sapienza University of Rome	Research fellow ("Annalaura Segre - Donatella Capitani" fellowship of GIDRM)
11/2019	10/2022	Sapienza University of Rome	PhD student
09/2021	02/2022	University of Valencia	Visiting PhD student
09/2014	10/2019	Università degli Studi 'G. d'Annunzio' Chieti - Pescara	Undergraduate student

IIIB – Other Academic Appointments

Start	End	Institution	Position
02/2019	10/2019	Institute for Biological Systems (ISB), CNR, Montelibretti	Laboratory internship under the supervision of Dr. Zeineb Aturki
11/2017	12/2017	Università degli Studi 'G. d'Annunzio' Chieti - Pescara	Laboratory internship (75 h) under the supervision of Prof. Simone Carradori

Part IV – Teaching experience

Year	Institution	Lecture/Course
10-12/2022	Sapienza University of Rome	Tutoring activity (80 h), degree in Pharmacy, Sapienza University of Rome
03-05/2022	Sapienza University of Rome	Percorsi per le Competenze Trasversali ed Orientamento (PCTO) Course 2021-2022 (20 h)
04-06/2021	Sapienza University of Rome	PCTO Course 2020-2021 (20 h)
04-07/2021	Sapienza University of Rome	Tutoring activity (40 h), degree in Pharmaceutical Chemistry and Technology, Sapienza University of Rome

Part V - Society memberberships, Awards and Honors

V A – Awards and grants

Year	Title
2022	"Annalaura Segre - Donatella Capitani" scholarship award of GIDRM for the metabolomic NMR study of kombucha beverage
2022	Grant for a free participation at the SISSG Congress "Oli e grassi alimentari: innovazione e sostenibilità nella produzione e nel controllo"
2022	Grant for a free subscription at the XXIV School of NMR of GIDRM
2022	Grant for a free participation at the Joint Italian-French meeting on Magnetic

	Resonance	
2021		Grant for a free subscription at the School of NIR Spectroscopy of SISNIR

V B - Society memberberships

Year	Title
2020-present	Member of Italian Group of Magnetic Resonance Discussion (GIDRM)
2020-2021	Member of Italian Chemistry Society (SCI)
2020	Member of Società Italiana di Chimica degli Alimenti (ITACHEMFOOD)
2021	Member of Società Italiana di Scienze dell'Alimentazione (SISA)
2021	Member of Sample Preparation Network (EuChemS)

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

VI A - Funding Information [grants as PI-principal investigator]

Year	Title	Program	Grant value
2021	Caratterizzazione chimica di estratti da piante officinali attraverso un approccio multimetodologico	Avvio alla Ricerca, University Research (n. prot. AR12117A740D17D4)	€ 1.000,00

VI B - Funding Information, Research projects [grants as I-investigator, partecipant]

Year	Title	Program	Grant value
2022	Le api di Sapienza	Avvio alla Terza Missione, University Research-Outreach Project (n. prot. TM2221841E5D5EB3)	€ 9.000,00
2022	CouRgettE blossoms As innovaTIVE source of ingredients for nutraceutical and food industry (CREATIVE)	Progetti di Ricerca Grandi, University Research (n. prot. RG12218166264844)	€ 50.000,00
2021	Dalla valorizzazione degli scarti agroalimentari del comparto ortofrutticolo alla formulazione di integratori alimentari Acronimo: INTEGR-HORTO	Progetti di Ricerca Medi, University Research (n. prot. RM12117A65FD1363)	€ 11.300,00
2021	FITO-BIO	CIVIS Open Lab, University Research	€ 6.000,00
2020	Innovative bio-packaging to preserve quality and extend the shelf-life of fruits and vegetables	Progetti di Ricerca Grandi, University Research (n. prot. RG120172B2872CB3)	€ 50.000,00

Part VII – Research Activities

The research activity of Dr. Giacomo Di Matteo is focused on the study of food matrices carried out using Nuclear Magnetic Resonance (NMR) methodologies and High-Performance Liquid Chromatography (HPLC) analysis. This activity is significantly represented by the 12 selected papers published in Scientific Journals relevant in the field of food chemistry and, in some cases, by the other publications.

High-field NMR spectroscopy is recognized as one of the main analytical methodologies in food metabolomics since it allows to obtain in a single experiment a comprehensive characterization of the entire food matrix as a mixture of compounds without separation. On the other hand, the targeted HPLC technique is an important tool to separate and quantify specific compounds with an high sensibility.

In my research activity NMR methodology and HPLC analysis were applied to investigate food matrices and edible plants. In particular, the NMR methodology used for the metabolomics food characterization has required the following general protocol: the Bligh-Dyer extraction protocol to obtain the collection of both the hydroalcoholic and organic phases of the investigated foods; the NMR spectra assignment of foodstuffs extracts by means of 1D and 2D experiments, standard additions and by comparison with standard compounds database.

In particular, the aims of my research activity are:
- the NMR characterization of Italian local products to valorise their role in the national market. Apples from the Piedmont region, and tomatoes and goji berries from the Lazio region have been investigated;
- the NMR characterization of pumpkin samples to monitor the shelf-life with different innovative packaging solutions;
- the NMR characterization of plum to investigate their possible role against cardiometabolic diseases;
- the NMR and HPLC characterization of *Cannabis Sativa* L. parts. Hemp inflorescences have been investigated to promote their possible use in food sector whereas hempseed oils were studied to determine and suggest quality parameters. Finally, hempseeds were studied to improve their nutritional and functional values;
- the NMR characterization of globe artichoke and cauliflower byproducts;
- the NMR characterization of *Acheta domesticus* powder as Novel Food;
- the HPLC quantification of tocopherols in milk samples.
These research lines regarding foodstuffs and edible plants are described below.

Keywords	Brief Description
Italian food local products, NMR characterization	Nowadays, many Italian local products are disappearing due to the market selection of only few varieties with high-yielding and attraction. The local products often survive only in niche areas for the local consumption. In this context, high-field NMR spectroscopy has been applied to characterize and, therefore, to valorise local Italian products and bring out their biodiversity.
	Tomatoes
	Torpedino di Fondi cultivar is a new hybrid tomato variety cultivated in the Lazio Region characterized by a peculiar sweetness and palatability. This product shows a shape similar to the one of the traditional San Marzano fruit, but is smaller in size and in weight. For these reasons it is also called "Mini-San Marzano".
	The application of both NMR and ESI FT-ICR MS has allowed to detect different classes of metabolites (sugars, amino acids, organic acid, fatty acids) and to monitor the metabolite concentration during the ripening.
	The NMR metabolomic analysis allowed some trends of the metabolites concentration to be observed. For instance among the sugars, the glucose and fructose contents in both Torpedino di Fondi samples were always higher compare to the San Marzano. Moreover, the fructose and glucose levels increased in Torpedino di Fondi cultivar over the ripening period, whereas the opposite trend was observed in the San Marzano ones.
	Apples
	The Piedmont region represents today the third Italian producer. Over the years, the apple tradition cultivation has changed to intensive cultivation, bringing to a

	significant reduction of the local product. The NMR analysis of apple extracts obtained from ten apple varieties has allowed the determination of their metabolite profiling. The quantified metabolites have been submitted to a chemometric analysis namely the Principal Component Analysis (PCA). Four apple varieties namely Canditina, Carla, Grenoble and Magnana were well separated from all the others. In particular the Canditina cultivar has shown a high content of citramalic acid, *p*-coumaroyl moiety, total saturated fatty acid and total tri-unsaturated fatty acid, and a low amounts of some sugars and organic acids. Instead, both the Magnana and Grenoble cultivars were characterized by high levels of sucrose, rhamnitol, malic acid, asparagine, alanine, and phosphatidylcholine and low content of *p*-coumaroyl moiety. *Goji berries* Goji berries are consumed as a functional food in many dietary, cosmetic, and pharmaceutical preparations and supplements. Italy is one of the main goji berries producers in Europe. Among goji berries cultivars, Big Lifeberry (BL) and Sweet Lifeberry (SL) are of particular interest. BL and SL goji berries grown in the South Lazio Region and harvested in August and October have been investigated by a multimethodological analytical protocol consisting of NMR and ESI FT-ICR MS methodologies. A complete metabolite profile has been obtained. In addition, a preliminary studies regarding the chemical characterization of goji leave has been also carried out: a rich chemical profile in secondary metabolites has been observed suggesting a promising use in the nutraceutical field.
Pumpkins NMR characterization and preservation	Food packaging plays an essential role in preserving food throughout the distribution chain. To date the use of the traditional polymeric materials from mineral oils is strongly debated due to the long degradation times responsible of plastic pollution and environmental damage and to the cross-contaminants into the foods. In this context, eco-sustainable bio-packaging represents a current topic. Pumpkins samples stored in three different commercial biofilms have been analysed by untargeted NMR and targeted techniques, including HPLC. Some results about the biofilm functionality useful to increase the pumpkin shelf-life have been discussed. From a biological point of view, the best biofilm solution (with the lower microbial counts) turned out to be the Poly-Lactic Acid (PLA) biofilm. The functionality of this packaging was also confirmed by NMR: no-significant variations of the secondary metabolites present in the pumpkins has been observe during the storage.
Plum NMR characterization and activity against cardiometabolic diseases	Plums (*Prunus domestica* L.) is known for antioxidant potential and anti-inflammatory effects. Moreover, these fruits have a low glycemic index, representing a potential preventive strategy against metabolic syndrome. The hydroethanolic extracts of *P. domestica* L. subsp. Syriaca have been characterized through NMR spectroscopy and UHPLC-HRMS analysis. The NMR profile has been determined. In particular, glucose and malic acid turned out to be the compounds present in major amounts. Moreover, the in vitro modulatory effects of the extracts on the enzymes activity involved in the metabolic syndrome and the modulation of proinflammatory mediator release have been also carried out. *P. domestica* fruit extracts result to positively modulate a series of molecular mechanisms involved in the pathophysiology of cardiometabolic diseases.
Industrial hemp products, NMR and HPLC	*Cannabis Sativa* L. is an annual plant of the Cannabacee family. The plant that can be monoecious or dioecious, is rich of a number of bioactive compounds including cannabinoids, the most studied compounds. Actually in Europe the cultivation of

characterization	the industrial hemp is allowed with a maximum amounts of TetraHydroCannabinol (THC) lower than 0.2 %. In Italy, only seeds and their derived products, namely flour and oil, are allowed for the human consumption. The inflorescences of *Cannabis Sativa* are now under judgment to become a novel food stimulating the research activity also in this field.

Inflorescences of dioecious cultivars
The chemical composition of hemp inflorescences can be affected by several factors such as genotype, pedoclimatic conditions, agronomical practices, and harvesting time.
The chemical profile of the female inflorescence extracts from seven *Cannabis sativa* L. dioecious cultivars (Carmagnola, Fibranova, Eletta Campana, Antal, Tiborszallasi, Kompolti, and Tisza) has been monitored at three harvesting stages (4, 14, and 30 September), using untargeted NMR and targeted UHPLC analysis. The quantitative results have been submitted to PCA analysis. Samples harvested in stage I were characterized by a high content of sucrose and myo-inositol, whereas the ones harvested in stage II showed high levels of succinic acid, alanine, valine, isoleucine, phenylalanine, and threonine. Samples harvested in stage III were characterized by high levels of glucose, fructose, choline, trigonelline, malic acid, formic acid, and some amino acids.

Inflorescences of monoecious cultivars
Different agronomical practices can influence the chemical composition of hemp cultivar inflorescences.
The inflorescences of the Ferimon monoecious cultivar, harvested in two different stages, and cultivated with different agronomical practices (different fertilization of P and N and with or without the irrigation), have been analysed both by means of NMR for a metabolomic characterization, and by HPLC for the cannabinoids quantification. At the end of the quantitative study, a PCA statistical analysis on the results has been performed finding a well separation of the samples according to the harvested month and the agronomical practices.

Hempseed oils
Hempseed oils are a good source of nutritive compounds.
Nine hempseed oils sampled in markets have been analysed by NMR spectroscopy. Fatty acids, hexanal, *trans*-2-hexenal and β-sitoserol were quantified. Di-unsaturated (35-48%) fatty chains were the main fatty acids, followed by mono-unsaturated (15-28%) and tri-unsaturated ones (8-20%). The ω-6/ω-3 ratio for hempseed oil turned out to be 3:1, that is ideal for the human consumption. The described ratio determined rapidly by NMR can be suggested as an index of quality for the hempseed oils.

Hempseeds
Hempseeds can be consumed as such (whole, hulled seed) or dehulled (hempseed kernel). Based on the chemical composition, hempseeds could represent potential ingredients for functional or healthy foods. Moreover, biotechnological transformations could be useful to improve their nutritional and functional values.
Two varieties of hempseeds, *Secuieni Jubileu* and *Futura 75*, in the raw form and submitted to a maltation process at 50 or 70 °C have been investigated. In particular, the HPLC-PDA analysis of polyphenols was carried out. *p*-Hydroxybenzoic acid, cannabisin A, cannabisin B and N-*trans*-caffeoyltyramine were the main identified and quantified polyphenols. The maltation significantly increased the content of N-*trans*-caffeoyltyramine and cannabisin A in both cultivars. Based on the chemical results and biological assays, malting using 3 germination days and 70 °C could be considered a suitable transformation process for improving hempseeds quality.

Globe Artichoke and cauliflower byproducts NMR characterization	Agricultural food waste and byproducts (thousands of tons) are generated along the fruit and vegetable supply chain. In the case of globe artichoke and cauliflower, the 80% (globe artichoke) and 60% (cauliflower) of the products ends up as solid waste or left in the field. Local globe artichoke and cauliflower of the Lazio Region have been chosen as valuable byproducts to be characterized by means of NMR and to be proposed for the formulation of new plant biostimulants and food supplements. Free amino acids, organic acids, sugars, polyols, polyphenols, amines, glucosinolates, fatty acids, phospho- and galactolipids, sterols, and sesquiterpene lactones have been identified and quantified. In particular, globe artichoke byproducts are a source of health-beneficial compounds including chiro-inositol, scyllo-inositol, sesquiterpene lactones, inulins, and chlorogenic acid, whereas cauliflower byproducts contain bioactive sulfur-containing compounds S-methyl-L-cysteine S-oxide and glucosinolates.
Acheta domesticus powder, NMR characterization	*Acheta domesticus* (house cricket) has been recently introduced in the official European list of Novel Food, representing a possible alternative and sustainable food source. A spray-dried *A. domesticus* powder produced in Italy has been investigated by a multimethodological approach, including NMR spectroscopy. Interesting compounds such as methyl-branched hydrocarbons, citrulline, formate, γ-terpinene, o-cymene, α-thujene, β-thujene, and 4-carene have been detected.
Milk tocopherols extraction and quantification by HPLC	Tocopherols are a class of fat-soluble compounds, representing the major forms of vitamin E with antioxidant activities. Tocopherols are mainly present in food of vegetal origin, and in minor amount in foods of animal origin. In particular, in the case of milk, the concentration of tocopherols depends on different factors such as animal species, breed, type of forage fed and stage of lactation. An optimized extraction process of tocopherols from milk have been performed together with tocopherols separation and quantification. In particular, the tocopherols extraction has been carried out by an optimized ultrasound-assisted extraction. Then, α-tocopherol, γ -tocopherol and δ-tocopherol have been separated and quantified by HPLC-FD analysis.
NMR to study foodstuffs	In the scientific literature, a number of papers are available regarding the NMR methodology in foods study. In a recent review these publications were organized into three main approaches: one approach start from the food that needs to be analysed, another starts from common challenges regarding foods such as frauds, geographical and botanical origins, etc., and the last approach start with a single specific NMR methodology, developing a broad range of applications to tackle common food-related challenges and different aspects.
Foods effect on well-being and health	Food and food ingredients have well known beneficial activities in gaining a well-being state and in modulate some pathways connected with human pathologies. Some aspects of these topics have been deepened in two review articles: - a review, written in the early stages of the pandemic, regards the possible role of foodstuffs on the preventive/co-treatment of COVID-19. Two main approaches have been explored: an untargeted approach, investigated through clinical trials, regards the role of micronutrients, food compounds and diets as immune enhancers whereas a targeted approach regards the interaction, investigated through in silico studies, between food compounds and the proteins involved in the virus replicatio. - a review article is focused on the modulation activity of food bioactive compounds in the case of the NLRP3 inflammasome. NLRP3 inflammasome is one of the main protein complexes involved in the development of inflammatory

		events connected with disorders like diabetes, gouty arthritis, liver fibrosis, Alzheimer's disease, respiratory syndromes, atherosclerosis, and cancer initiation.

Part VIII – Participation to conferences, workshops and scientific meetings

Dates	Institution/place	Description
26/05/2021	Virtual	Workshop of Buchi "Come aumentare il valore dei prodotti alimentari tramite la liofilizzazione"
6, 26/08/2021	Virtual	Workshops of Separation Science and Waters about chromatography
4-5/11/2021	University of Valencia	VI Workshop MICOFOOD
16-17/11/2020	Virtual	Workshop of OLEUM "Nuovi metodi analitici per la prevenzione e il controllo della qualità e dell'autenticità degli oli di oliva: proposte dal progetto europeo OLEUM"
25/09/2020	Virtual	Workshop of Buchi "Processi di concentrazione, purificazione e separazione dei cannabinoidi"
29/05/2020	Virtual	Workshop of Jeol "An Introduction to NMR: Practical Aspects"
13/02/2020	University of Milan	Workshop of Shimadzu "Cannabis: Il rigore del controllo in ambito farmaceutico ed agro-alimentare"
06/05/2019	Sapienza University of Rome	Workshop of Cannaβeta "New horizons in Cannabis research: medical and food applications"

Part IX – Poster/abstract contributions

IX A - Poster contributions

International Conferences: n. 2 poster contributions
National Congresses: n. 1 poster contribution

Dates	Institution/place	Description
27-30/09/2022	Milan	Joint Italian-French meeting on Magnetic Resonance
08-10/09/2021	Virtual	XLIX National Congress on Magnetic Resonance
14-16/10/2020	Cesena	6th International Conference on Foodomics

IX B - Abstract contributions

Dates	Institution/place	Description
16/09/2020	Virtual	FISV Symposium on SARS-CoV-2 Biology and COVID-19: Current research and perspectives

Part X - Oral Communications

International Conferences: n. 2 oral communications
National Congresses: n. 6 oral communications

Dates	Institution/place	Description
09/09/2022	Sapienza University of Rome	Caratterizzazione multi-metodologica di piante officinali
23-24/06/2022	Sapienza University of Rome	VII Workshop – Applicazioni della Risonanza Magnetica nella scienza degli alimenti
20-23/06/2022	Sapienza University of Rome	SYNC2022 – First Symposium for Young Chemists: Innovation and Sustainability
15-17/06/2022	Perugia	SISSG – Oli e grassi alimentari: innovazione e sostenibilità nella produzione e nel controllo
07-10/06/2022	Aarhus University	MRFOOD2022 – 15th International Conference on the Applications of Magnetic Resonance in Food Science
08-10/09/2021	Virtual	XLIX National Congress on Magnetic Resonance
16/06/2021	Sapienza University of Rome	Il packaging per gli alimenti ad alto valore nutrizionale: metodologie avanzate per nuove soluzioni
22/09/2020	Sapienza University of Rome	La Canapa industriale: sviluppo e valorizzazione di una nuova filiera agroalimentare ecosostenibile

Part XI – Conference organization

Date, Place	Conference	Position
23-24/06/2022, Roma	VII Workshop – Applicazioni della Risonanza Magnetica nella scienza degli alimenti	Organizing Commitee Member
27/05/2022, Online	Ri-cicloHorto "Valorizzazione degli scarti agroalimentari"	Organizing Commitee Member
22/02/2022,	Vull treballar! Eixides professionals a la industria alimentaria	Organizing

Valencia		Commitee Member
16/06/2021, Roma	Il packaging per gli alimenti ad alto valore nutrizionale: metodologie avanzate per nuove soluzioni	Secretariat Member
22/09/2020, Roma	La Canapa industriale: sviluppo e valorizzazione di una nuova filiera agroalimentare ecosostenibile	Secretariat Member

Part XII – Book chapters not present on international databases

2022	OLEUM, Lanfranco Conte and Maurizio Servili, Edagricole, ISBN 978-88-506-5617-2 Chapter contribution: "Analisi tramite Risonanza Magnetica Nucleare in oli extra vergini di oliva"

Part XIII – Papers in International Journals not present on international databases

2021	"Foods and COVID-19" Di Matteo, G.; Spano, M.; Grosso, M.; Salvo, A.; Ingallina, C.; Russo, M.; Pietropaolo, V. A.; Prezioso, C.; Mannina, L.; Ritieni, A. *World J Food Nutr* 2021, Vol. 1, Issue 1, pp. 1002

Part XIV – Scientific Qualification

03/2022	24 CFU in anthropo-psycho-pedagogical disciplines and teaching methodologies and technologies at Sapienza University of Rome
02/2020	Qualified Pharmacist at Università degli Studi 'G. d'Annunzio' Chieti - Pescara

Part XV – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	13	SCOPUS	2020	2022
Posters	3		2020	2022
Conference oral communications	8		2020	2022

Total Impact factor[i]	72.376
Average Impact factor per Product[i]	5.567
Total Citations	80
Average Citations per Product	6.15
Hirsch (H) index	6
Normalized H index*	2.0

[i]calculated on the basis of the publication year
*H index divided by the academic seniority.

Part XVI– Selected Publications

List of the 12 publications selected for the evaluation. For each publication, authors, title, reference data, journal IF (Journal Citation Reports) and number of citations (Scopus) are reported. IF is relative to the year of publication or, if not available, to the year closest to the year of publication. For each publication , the filename of the pdf format is also reported.

First name/Co-First name: n. 4 papers
Co-Author: n. 8 papers

1	2022	Research paper Spano, M.; **Di Matteo, G.**; Ingallina, C.; Sobolev, A. P.; Giusti, A. M.; Vinci, G.; Cammarone, S.; Tortora, C.; Lamelza, L.; Prencipe, S. A.; Gobbi, L.; Botta, B.; Marini, F.; Campiglia, E.; Mannina, L. "Industrial Hemp (Cannabis sativa L.) Inflorescences as Novel Food: The Effect of Different Agronomical Practices on Chemical Profile". *Foods* 2022, Vol. 11, Issue 22, 3658. DOI: 10.3390/foods11223658. Impact factor (2021)= 5.561; Q1 FOOD SCIENCE & TECHNOLOGY Citation (Scopus): 0 Filename (pdf): 1.Foods_11_3658_2022
2	2022	Review article Sobolev, A. P., Ingallina, C., Spano, M.; **Di Matteo, G.;** Mannina, L. "NMR-Based Approaches in the Study of Foods". *Molecules* 2022, Vol. 27, Issue 22, 7906. DOI: 10.3390/molecules27227906. Impact factor (2021)= 4.927; Q2 CHEMISTRY, MULTIDISCIPLINARY Citation (Scopus): 0 Filename (pdf): 2.Molecules_27_7906_2022
3	2022	Review article Spano, M.; **Di Matteo, G.;** Ingallina, C.; Ambroselli, D.; Carradori, S.; Gallorini, M.; Giusti, A.M.; Salvo, A.; Grosso, M.; Mannina, L. "Modulatory Properties of Food and Nutraceutical Components Targeting NLRP3 Inflammasome Activation". *Nutrient* 2022, Vol. 14, Issue 3, 490. DOI: 10.3390/nu14030490. Impact factor (2021)= 6.706; Q1 NUTRITION & DIETETICS Citation (Scopus): 4 Filename (pdf): 3.Nutrient_14_490_2022
4	2022	Research paper Ullah, H.; Sommella, E.; Santarcangelo, C.; Avino, D.D.; Rossi, A.; Dacrema, M.; Di Minno, A.; **Di Matteo, G**.; Mannina, L.; Campiglia, P.; Magni, P.; Daglia, M. "Hydroethanolic Extract of *Prunus domestica* L.: Metabolite Profiling and In Vitro Modulation of Molecular Mechanisms Associated to Cardiometabolic Diseases". *Nutrient* 2022, Vol. 14, Issue 2, 340. DOI: 10.3390/nu14020340 Impact factor (2021)= 6.706; Q1 NUTRITION & DIETETICS Citation (Scopus): 4 Filename (pdf): 4.Nutrient_14_340_2022
5	2022	Research paper

		Farinon, B.; Costantini, L.; Molinari, R.; **Di Matteo, G**.; Garzoli, S.; Ferri, S.; Ceccantoni, B.; Mannina, L.; Merendino, N. "Effect of malting on nutritional and antioxidant properties of the seeds of two industrial hemp (*Cannabis sativa* L.) *cultivars*". *Food Chem.* 2022, Vol. 370, 131348. DOI: 10.1016/j.foodchem.2021.131348 Impact factor (2021)= 9.231; Q1 FOOD SCIENCE & TECHNOLOGY Citation (Scopus): 7 Filename (pdf): 5. Food.Chem_370_131348_2022
6	2021	Research paper Spano, M.; Maccelli, A.; **Di Matteo, G.**; Ingallina, C.; Biava, M.; Crestoni, M.E.; Bardaud, J.; Giusti, A.M.; Mariano, A.; D'Abusco, A.S.; Anatoly P. S.; Lasalvia, A.; Fornarini, S.; Mannina, L. "Metabolomic Profiling of Fresh Goji (*Lycium barbarum* L.) Berries from Two Cultivars Grown in Central Italy: A Multi-Methodological Approach". *Molecules* 2021, Vol. 26, Issue 17, 5412. DOI: 10.3390/molecules26175412 Impact factor (2021)= 4.927; Q2 CHEMISTRY, MULTIDISCIPLINARY Citation (Scopus): 3 Filename (pdf): 6.Molecules_26_5412_2021
7	2021	Research paper **Di Matteo, G**.*; Di Matteo, P.*; Sambucci, M.; Tirillò, J.; Giusti, A.M.; Vinci, G.; Gobbi, L.; Prencipe, S.A.; Salvo, A.; Ingallina, C.; Spano, M.; Sobolev, A. P.; Proietti, N.; Di Tullio, V.; Russo, P.; Mannina, L.; Valente, M. *Co-First name "Commercial Bio-Packaging to Preserve the Quality and Extend the Shelf-Life of Vegetables : The Case-Study of Pumpkin Samples Studied by a Multimethodological Approach". *Foods* 2021, Vol. 10, Issue 10, 2440. DOI: 10.3390/foods10102440 Impact factor (2021)= 5.561; Q1 FOOD SCIENCE & TECHNOLOGY Citation (Scopus): 2 Filename (pdf): 7.Foods_10_2440_2021
8	2021	Research paper Spano, M.*; **Di Matteo, G**.*; Ingallina, C.; Botta, B.; Quaglio, D.; Ghirga, F.; Balducci, S.; Cammarone, S.; Campiglia, E.; Giusti, A.M.; Vinci, G.; Rapa, M.; Ciano, S.; Mannina, L.; Sobolev, A. P. *Co-First name "A Multimethodological Characterization of Cannabis sativa L . Inflorescences from Seven Dioecious Cultivars Grown in Italy : The Effect of Different Harvesting Stages". *Molecules* 2021, Vol. 26, Issue 10, 2912. DOI: 10.3390/molecules26102912. Impact factor (2021)= 4.927; Q2 CHEMISTRY, MULTIDISCIPLINARY Citation (Scopus): 6 Filename (pdf): 8.Molecules_26_2912_2021
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