#### **CV-Christos Ritzoulis**

First name: Christos; Family name: Ritzoulis Nationality: Greek; Date of Birth: 25 July 1973

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# Professional experience:

2019 – Today: Professor of of Food Chemistry, Department of Food Science and Technology, International Hellenic University, Thessaloniki, Greece.

2008 – 2019: Professor (2017 – 2019); Associate Professor (2013 – 2017); Senior Lecturer (2008 – 2013) in Food Chemistry, Department of Food Technology, ATEI of Thessaloniki, Thessaloniki, Greece.

2004 – 2008: Chemist/Analyst, General State Chemical Laboratories, Greece. Duties included the analysis of food, water, drugs/narcotics, fertilizers, and a wide range of commodity materials, in environments accredited under ISO 17025:2005.

2004 – 2008: Adjunct Professor, Department of Food Technology, ATEI of Thessaloniki. Teaching the modules "Food Chemistry", "Food Analysis I", "Food Analysis II (Instrumental Analysis)".

2003 – 2004: Post-Doctoral Researcher, Department of Chemical Engineering, on the utilization of milk proteins as starting materials for the preparation of microporous bone substitutes.

2001–2003: Sergeant/Chemist, Hellenic Air Force, assigned in a number of Air Force chemical laboratories.

#### **Education:**

2001: PhD in Food Science, "Stability and rheology of emulsions containing caseinate and surfactants", under Prof. E. Dickinson, Procter Department of Food Science, University of Leeds, Leeds, United Kingdom.

1997: MSc in Food Science, Procter Department of Food Science, University of Leeds, Leeds, United Kingdom.

1996: BSc (4 years) in Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece.

## Other information:

Leader of a Research Group focused on Food Colloids. Built and developed Laboratories and Research Teams. Scientist-in-Charge of Projects with the Food Industry. Running R&D Projects involving both the Food Industry and the Academia.

Distinguished Scholar, School of Food Science and Biotechnology, Zhejiang Gongshang University, Hangzhou, China.

Instructor for the Staff of Food Control Authorities and for the Food Safety Trainers (Greek Food Control Authority, EFET).

# PhD supervisor / co-supervisor

Athina Theocharidou (PhD supervisor) Theodoros Karakasidis (PhD supervisor) Ioannis Velopoulos (PhD supervisor)



Maria Dimopoulou (PhD co-supervisor) Alexandros Pavlou (PhD co-supervisor) Sevasti Matsia (PhD co-supervisor) Eleni Kontogiannidou (PhD co-supervisor) Fotini Plati (PhD co-supervisor)

## PhD Thesis Viver / Examiner

2015 May Wee: PhD Thesis "Physico-Chemical Characterisation and Functionality of the Polysaccharide Extracted from the New Zealand Black Tree Fern, Cyathea medullaris (Mamaku)" (Massey University, New Zealand)

2015 Styliani Protonotariou, PhD Thesis (Aristotle University of Thessaloniki, Greece)

2016 Simela Chatziantoniou, PhD Thesis (University of Ioannina, Greece)

2022 Lirong Cheng: PhD Thesis "Physico-chemical properties and stability of lipid droplet-stabilised emulsions" (Massey University, New Zealand)

2023 Rania Elayeb: PhD Thesis "Optimisation de l'extraction, caractérisation et évaluation biologique des molécules bioactives extraits de L'Olivier *Olea europaea L.* : Valorisation des margines" (Institut Superieur de Biotechnologie de Monastir, Tunisia)

2023 Georgios Agorastos: PhD Thesis "Unraveling mouthfeel: A novel approach to understand taste" (University of Maastricht, the Netherlands)

2023 Marianthi Zioga, PhD Thesis "Study of the isolation of pectins from citrus waste and their valorisation as functional ingredients by the food industry" (Agricultural University of Athens, greece)
Progress assessor to PhD Theses, Zhejiang Gongshang University, Hangzhou, China

## Guest Editorship of Special Issues:

Guest Editor, Special Issue "Soft Foods: Structure, Rheology, Texture, and Function"; International Journal of Food Science and Technology, IF 2.383, Wiley.

Guest Editor, Special Issue: "Oral processing of soft foods – state of the art and trends"; Journal of Future Foods, Beijing Academy of Food Sciences/Elsevier.

# Member of scientific Journals' Editorial Board:

Food Biophysics (Springer)
Foods (MDPI)
Journal of Future Foods (Beijing Academy of Food Sciences/Elsevier)

#### Administrative duties:

Director, Postgratuate Progamme (MSc) in Quality Management Systems and Production Planning in the Food Industry, Department of Food Science and Technology, International Hellenic University, Thessaloniki, Greece (2021 – Today). Integrated MSc into the Departmental Strategy.

Member of the Lifelong Learning Steering Committee, International Hellenic University, Thessaloniki, Greece (2021 – 2022).

Director, Food Science Division (General and Specific Infrastructure Modules), Department of Food Technology, ATEI of Thessaloniki (2009–2010 and 2011–2012).

<u>Christos Ritzoulis</u> <u>September 2023</u>

Deputy Director, Sector of Food Science, Department of Food Technology, ATEI of Thessaloniki (2015 – 2016 and 2016–2017)

Member of the MSc Steering Committee, Department of Food Technology, ATEI Thessaloniki (2009–2019).

Member of the Departmental Laboratory Safety Committee (2016 – 2018).

Formal departmental liaison with the food industry - Supervisor of the students' industrial placements.

Former Member of the General Assembly of the Greek Chemists Association. Member of the Central Institutional Committee on External Collaborations, which manages the Institute's ties with the Industry and with the Private Sector

Former Member of the Committee for the Departmental Syllabus and of the Committee of Strategic Planning, Department of Food Technology, ATEI Thessaloniki

## Teaching experience:

Teaching or taught the following Modules: Food Chemistry; Physical Chemistry of Foods; Food Analysis; Instrumental Analysis of Foods; Technology and Quality Control of Meat and Meat Products; Good Laboratory Practice (MSc); Food Structure and Function; Food Sustainability.

Also giving regular seminars for the Greek Food Control Authority (EFET) to the food inspection personnel of the Greek Civil Service. Topics include Market Control, Analysis and Legislation of Food Additives, Dairy Products, Plant-based Products, Olive Oil & Olives, Inspection of Quality Systems, among others.

## Languages:

Greek (mother language)
English (excellent knowledge)
French (working knowledge)

## Main Research Programmes/Projects as Scientist-in-Charge:

2023: Project Leader & Scientist-in-Charge, "Development of Tea Products". Fully funded by Tearoute, Thessaloniki, Greece.

2023: Scientist-in-Charge, "Production and Integration of lavender extracts in dairy products", part of a consortium comprising members of the academia and the food industry. Sub-meter 16-1 – 16.2 Agricultural Development pogram, General Secretariat of Union Resources and Infrastructure.

2022: Scientist-in-Charge, "Utilization of stone fruit from the region of Imathia for the production of an innovative yogurt type product with enhanced characteristics". Investment Plans for Innovation, Region of Central Macedonia, NSRF 2014–2020. Collaborating partners: Koukakis Farm S.A., Kosmos Cooperative, Institute for Veterinary Research "Demeter".

2021: Project Leader & Scientist-in-Charge, "Colloidal Foods for Special Applications". Fully funded by Nestlé S.A., Vevey, Switzerland.

2021: Project Leader & Scientist-in-Charge, "Study of Coffee Products". Fully funded by Cafetex S.A., Athens, Greece.

2021: Project Leader & Scientist-in-Charge, "Development of Siphon Applications & Ingredients". Fully funded by Kayser Bernsdorf GmbH, Vienna, Austria.

2013–2015: Project Leader & Scientist-in-Charge, "Recovery, Characterization and Practical Applications of Food-Grade Hydrocolloids from Olive and Grape by-Products", (SYNERGASIA 11 Action, GSRT, Greece). Coordinated partners (except from CR's Institution): Koukakis Farm S.A., Condito S.A., Aristotle University of Thessaloniki.

2012–2015: Project Leader & Scientist-in-Charge, "Isolation and characterization of polysaccharides and oligosaccharides from okra (*Abelmoschus esculentus*)", (Archimedes III Action, Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework NSRF, Greece).

2010–2011: Project leader, "Influence of additives and other ingredients in the physico- chemical and sensory properties of sausages", funded by Sivvas S.A.

2010: Project leader & Scientist in Charge of Innovation Coupon programme "Development of a process for the distillation of oregano and other Greek herbs for the optimization of their antiseptic properties" (microencapsulation of essences in emulsions), (General Secretariat for Research and Technology, Greece, project ID 78583425-02-000065). (Deployed novel series of antiseptic creams based on oregano essential oils for Panaroma S.A.)

2008 –2009 Project Leader and Scientist-in Charge "Microencapsulation of plant extracts from the Lamiacae family in thin chitosan films". Funded by ATEI Research Committee.

#### **Books**

- **1.** Ritzoulis C.: Introduction to the Physical Chemistry of Foods (2013) CRC Press, Boca Raton, Florida (ISBN 9781466511750)
- **2.** Ritzoulis C. : Physical Chemistry of Foods (in Greek) (2011) Tziolas Publishers, Thessaloniki (ISBN 9789604183128)

# **Book Chapters**

- 1. Ritzoulis C.\*, Pavlou A. Food Processing by-Products and Waste: Potential Applications as Emulsifiers and Stabilizers, 235 249 in Raikos V., Ranawana V. (Eds) Reformulation as a Strategy for Developing Healthier Food Products. Challenges, Recent Developments and Future prospects. Springer ISBN 978-3-030-23620-5 Springer Nature Switzerland AG (2019)
- 2. Ritzoulis C.\*, Karayannakidis, P.D. Proteins as Texture Modifiers (Chapter 3) in Chen J., Rosenthal A. (Ed.) Modifying Food Texture vol. 1, Woodhead Publishing ISBN: 978-1-78242- 333-1 (2015)
- 3. Alba K., Kontogiorgos V.\*, Georgiadis N., Ritzoulis C. Okra extracts as emulsifiers for acidic emulsions, in Williams P. & Philips G. (Ed) Gums and Stabilisers for the Food Industry 17. The Changing Face of Food Manufacture: The Role of Hydrocolloids, 238–244 The Royal Society of Chemistry, Cambridge (2014)
- 4. Ritzoulis C. Moussaka as an Introduction to Food Chemistry, C. Ritzoulis (Chapter 7) *in* Vega Morales C., Ubbink J., and van der Linden E. The Kitchen as Laboratory: Reflections on the Science of Food and Cooking, Columbia University Press, ISBN: 978-0-231-15344-7 (2011)
- 5. Gohtani S., Ritzoulis C., and Dickinson E.\* Effect of Surfactants on Rheological Properties of Acid-Induced Sodium Caseinate Emulsion Gels; *Food Colloids, Biopolymers and Materials* (Dickinson E. and van Vliet T., ed.) Royal Society of Chemistry, Cambridge (2003)

#### **Patent**

Ritzoulis C., Pavlou A., Panayiotou C. Emulsifiers from grape processing by-products. United States Patents and Trademarks Office (USPTO) Patent US 9579618 B2 issued 02/28/2017.

## **Editorial article**

Ritzoulis C.\*, Shao P. From molecular to colloidal, and then to macroscopic aspects of soft foods. International Journal of Food Science and Technology, 55, 1851–1852 (2020)

# Publications in peer-reviewed journals (\* for the corresponding author)

- 1. Lytridou C., Katsigianni G., Vardouli F., Proestos C., Velopoulos I., Antoniadou M.D., Georgiou D., Kalogianni E.P. Pan W., Ritzoulis C.\* Emulsifiers from mealworm. Food Hydrocolloids, 143, 108877 (2023)
- 2. Elayeb R., Vardouli F., Majdoub H., Kalogianni E.P., Kyriakoudi A., Achour S., Trigui M., Theocharidou A., Ritzoulis C.\* Emulsifiers from Olive Stones. Food Hydrocolloids, 140, 108664 (2023)
- 3. Kapourani A., Kirimkiroglou K., Chachlioutaki K., Koromili M., Ritzoulis C., Assimopoulou A.N., Andreadis D.A., Fatouros D.G., Barmpalexis P. Evaluation of pilocarpine in situ forming buccal gels as potential formulations for the management of xerostomia. Journal of Drug Delivery Science and Technology, accepted for publication (2023)
- 4. Tang W., Zhang Q., Ritzoulis C., Ding Y., Liu J.\* Food protein glycation: A review focusing on stability and in vitro digestive characteristics of oil/water emulsions. Comprehensive Reviews in Food Science and Food Safety, 22, 1986–2026 (2023)
- 5. Monou P.-K., Andriotis E., Tsongas K., Tzimtzimis E., Katsamenis O., Tzetzis D., Anastasiadou P., Ritzoulis C., Vizirianakis I., Andreadis D. Fatouros D.G.\* Fabrication of 3D printed hollow microneedles by Digital Light Processing (DLP) for the buccal delivery of actives. ACS Biomaterials Science & Engineering, Accepted for publication (2023)
- 6. Theocharidou A., Psomas E., Koliouskas A., Ritzoulis C.\* Yogurt Products Fortified with Microwave Extracted Peach Polyphenols, Gels 9, 266 (2023)
- 7. Aidonidou E., Kalathaki I., Karageorgiou V., Ritzoulis C.\* Capturing the Onset of Oral Processing: Merging of a Model Food Emulsion Drop with Saliva. Journal of Texture Studies, accepted for publication (2023)
- 8. Tang W. Li M., Ritzoulis C.; Liu Y., Ding Y., Liu W., Liu J.\* Chemical and thermodynamic characterization of antioxidant emulsifiers: The case of complex of sodium caseinate with EGCG. Food Frontiers, Accepted for publication (2023)
- 9. Chachlioutaki K., Iordanopoulou A., Bouropoulos N., Meikopoulos T., Gika H., Ritzoulis C., Andreadis D., Karavasili C., Fatouros D.G.\* Pediatric and geriatric-friendly buccal foams: enhancing omeprazole delivery for patients encountering swallowing difficulties. Journal of Pharmaceutical Sciences, Accepted for Publication (2023).

10. Niu F., Ma S., Zhang X., Ritzoulis C., Chen Y., Pan W.\* The influence of KCl and concentration on the geltion of myofibrillar protein giant squid (Dosidicus gigas) due to molecular conformation change. Frontiers Nutrition, 9, 1082464 (2023)

- 11. Shahraki H.S., Bushra R., Shakeel N., Ahmad A., Quratulen, Ahmad M., Ritzoulis C.\* Papaya peel waste carbon dots/reduced graphene oxide nanocomposite: From photocatalytic decomposition of methylene blue to antimicrobial activity Journal of Bioresources and Bioproducts. Accepted for publication (2023)
- 12. Rountou E., Taplidis K., Georgakoudis G., Georgiou D., Kyriakoudi A., Mourtzinos I., Kalogianni E.P., Giotis C, Ritzoulis C.\* Emulsifiers from yellow split peas. Food Biophysics, 18, 23–31 (2023)
- 13. Theocharidou A., Lousinian S., Tsagaris A., Rizoulis C.\* Interactions and rheology of guar gum–mucin mixtures. Food Hydrocolloids, 133, 107903 (2022)
- 14. Rogkotis K. Matsia S., Lykotrafiti E., Rhoades J., Kountouras D.T., Katkalos K., Pavlidou E., Ritzoulis C., Salifoglou A\* Selective antimicrobial food packaging of composite poly(lactic acid) cobalt-citrate films. Food Packaging and Shelf Life, 34, 100959 (2022)
- 15. Lentzi P., Georgiou D., Kalogianni E.P., Kyriakoudi A., Ritzoulis C.\* Emulsifiers from white beans: Extraction and characterization. Colloids and Interfaces. 6, 71 (2022)
- 16. Andriotis E.G.\*, Monou P.-K., Komis G., Bouropoulos N., Ritzoulis C., Delis G., Kiosis E., Arsenos G., Fatouros D. Effect of Glyceryl Monoolein Addition on the Foaming Properties and Stability of Whipped Oleogels. Gels, 8, 705 (2022)
- 17. Theocharidou A., Mourtzinos I., Ritzoulis C.\* The role of guar gum on sensory perception, on food function, and on the development of dysphagia supplements A review. Food Hydrocolloids for Health, 2, 100053 (2022)
- 18. Lou M., Ritzoulis C., Liu J., Zhang X., Han J., Liu W\*. In vitro digestion of tofu with different textures using an artificial gastric digestive system. Food Research International, 157, 111458 (2022)
- 19. Chachlioutaki K., Karavasili C.\*, Mavrokefalou E.-E., Gioumouxouzis C.I., Ritzoulis C., Fatouros D.G. Quality control evaluation of paediatric chocolate-based dosage forms: 3D printing vs mold-casting method International Journal of Pharmaceutics, 624, 121991 (2022)
- 20. Asimakopoulou E., Giotis C.\*, Andreadis I., Fatouros D.G., Ritzoulis C. Stability and rheology of plant-derived hydrocolloid mucin mixtures. Journal of Texture Studies, 53, 558–562 (2022)
- 21. Ahmad M.\*, Ritzoulis C., Bushra R., Meigui H., Zhang X., Chen J., Song J., Jin Y., Xiao H. Mapping of  $\beta$ -lactoglobulin mucin interactions in an *in vitro* astringency model: Phase compatibility, adsorption mechanism and thermodynamic analysis. Food Hydrocolloids, 129, 107640 (2022)
- 22. Zhang C., Ritzoulis C., Jin Z., Li X., Han J., Liu W.\* Yellow and black soybean pellet degradation and nutrients hydrolysis during in vitro gastrointestinal digestion. Food Biophysics, 17, 221–231 (2022)
- 23. Chatzitaki A.-T., Mystiridou E., NBouropoulos N., Ritzoulis C., Karavasili C.\*, Fatouros D.G. Semi-solid extrusion 3D printing of starch-based soft dosage forms for the treatment of pediatric latent tuberculosis infection. Journal of Pharmacy and Pharmacology, 74, 1498–1506 (2022)

24. Niu F., Yu J., Fan J., Zhang B., Ritzoulis C., Pan W.\* The Role of Glycerol on the Thermal Gelation of Myofibrillar Protein from Giant Squid (Dosidicus gigas) Mince. Food Chemistry, 371, 131149 (2022)

- 25. Theocharidou A., Ahmad M., Petridis D., Vasiliadou C., Chen J., Ritzoulis C.\* Sensory perception of guar gum-induced thickening: Correlations with rheological analysis. Food Hydrocolloids, 111, 106246 (2021).
- 26. Niu F., Ju M., Du Y., Wang M., Han J., Chan Q., Xhang B. Ritzoulis C., Pan W.\* Changes in Properties of Nano Protein Particles (NPP) of Fish Muscle Stored at 4°C and Its Application in Food Quality Assessment. LWT, 155, 112968 (2021)
- 27. Koupa K., Keligianni V., Kalogianni E.P., Ritzoulis C.\* Foam stability of mucin caseinate mixtures: Relevance to oral processing. Food Biophysics 16, 161–168 (2021).
- 28. Li M., Ritzoulis C., Qiwei Du Q., Liu Y., Ding Y., Liu W., Liu J.\* Recent progress on protein-polyphenol complexes: effect on stability and nutrients delivery of oil-in-water emulsion system, Frontiers Nutrition, 9, 765589 (2021).
- 29. Feng S., Sui M., Wang D., Ritzoulis C., Farag M.A., Shao P.\* Pectin-zein based stigmasterol nanodispersions ameliorate dextran sulfate sodium-induced colitis in mice. Food and Function, 12, 11656 11670 (2021)
- 30. Plati F., Ritzoulis C., Pavlidou E., Paraskevopoulou A.\*, Complex coacervate formation of hemp protein isolate and gum Arabic: Formulation and characterization. International Journal of Biological Macromolecules, 182, 144–153 (2021).
- 31. Koliastasi A., Kompothekra V., Giotis H.\*, Moustakas A.K., Skotti E.P., Gerakis A., Kalogianni E.P., Petridis D., Ritzoulis C. Extraction of surface-active polymers from the compost of olive processing waste, Journal of Food Process Engineering 45, 13799 (2021).
- 32. Ahmad M., Ritzoulis C., Chen J.\*, Meihui H., Bushra R., Jin Y., Xiao H. Xanthan gum mucin complexation: Molecular interactions, thermodynamics, and rheological analysis. Food Hydrocolloids 114, 106579 (2021).
- 33. Mandala I.\*, Protonotariou S., Ritzoulis C. Jet milling conditions impact on wheat flour particle size. Journal of Food Engineering 294, 110418 (2021).
- 34. Xu Q., Ritzoulis C., Han J., Han F., Jin W., Liu W.\* Particle degradation and nutrient bioavailability of soybean milk during in vitro digestion. Food Biophysics, 16, 58–69 (2021)
- 35. Skendi A.\*, Papageorgiou M., Ritzoulis C. Physicochemical properties and emulsification properties of maize starch modified by hydrochloric, phosphoric and tartaric acid. International Journal of Food Science and Technology, 55, 3595–3603 (2020)
- 36. Niu F., Jiao Y., Zhang R., Fan J., Ritzoulis C., Pan W.\*, Li A. Properties of Nano Protein Particle in Solutions of Myofibrillar Protein Extracted from Giant Squid (Dosidicus gigas). Food Chemistry, 330, 127254 (2020)
- 37. Grizopoulou S., Karagiorgou M., Karageorgiou V., Shao P., Petridis D., Ritzoulis C.\* Spontaneous oleofoams from water-in-oil emulsions. Journal of the American Oil Chemists' Society, 97, 243–252 (2020)

<u>Christos Ritzoulis</u> <u>September 2023</u>

38. Eleftheriadis G.K. Katsiotis C.S., Andreadis D.A., Tzetzis D., Ritzoulis C., Bouropoulos N., Kanellopoulou D., Andriotis E.G., Tsibouklis J., Fatouros D.G.\* Inkjet printing of a thermolabile model drug onto FDM-printed substrates: formulation and evaluation. Drug Development and Industrial Pharmacy, 46, 1253–1264 (2020)

- 39. Pavlou A.\*, Melikidou I., Petridis D., Panayiotou C., Ritzoulis C. Winery by-product hydrocolloids as texture modifiers in yoghurt formulations. Journal of Culinary Science and Technology, 19, 352–371 (2020)
- 40. Ahmad M., Ritzoulis C., Pan W., Chen J.\* Biologically-relevant interactions, phase separations and thermodynamics of chitosan–mucin binary systems. Process Biochemistry, 94, 152 163 (2020)
- 41. Karavasili C., Garagkounis A., Moschakis T., Ritzoulis C., Fatouros D.G.\* Pediatric-friendly chocolate-based dosage forms for the oral administration of both hydrophilic and lipophilicdrugs fabricated with extrusion-based 3D printing. European Journal of PharmaceuticalSciences, 2, 105291 (2020)
- 42. Feng S., Sun Y., Wang P., Sung P., Ritzoulis C., Shao P.\*, Co-encapsulation of resveratrol and epigallocatechin gallate in low methoxy pectin-coated liposomes with great stability in orange juice. International Journal of Food Science and Technology, 55, 1872–1880 (2020)
- 43. Ahmad M., Ritzoulis C., Pan W., Chen J.\*, Chemical physics of whey protein isolate in the presence of mucin: From macromolecular interactions to functionality. International Journal of Biological Macromoleules, 143, 573–581 (2020)
- 44. Ahmad M., Ritzoulis C., Pan W., Chen J.\*, Molecular interactions between gelatin and mucin: Phase behaviour, thermodynamics and rheological studies. Food Hydrocolloids, 102, 105585 (2020)
- 45. Koliastasi A., Kompothekra V., Giotis C.\*, Moustakas A.K., Skotti E., Gerakis A., Kalogianni E.P. Georgiou D., Ritzoulis C. Novel emulsifiers from olive mill compost. Food Hydrocolloids, 99, 105373 (2020)
- 46. Pavlou A., Panayiotou C., Kalogianni E.P. Georgiou D., Ritzoulis C.\* Fractionation of a hydrocolloid emulsifier reclaimed from winery waste, Food Chemistry, 301, 125259 (2019)
- 47. Fatouros D.\*, Eleftheriadis G., Ritzoulis C., Bouropoulos N., Tzetzis D., Andreadis D., Boetker J., Rantanen J. Unidirectional drug release from 3D printed mucoadhesive buccal films using FDM technology: in vitro and ex vivo evaluation. European Journal of Pharmaceutics and Biopharmaceutics, 144, 180–192 (2019)
- 48. Yuan B., Ritzoulis C.,\* Wang X., Pan W., Chen J. Interactions between mucin and okra gum during pH cycling. Food Hydrocolloids, 95, 1–9 (2019)
- 49. Shao P.\*, Liu Y., Ritzoulis C., Niu B. Preparation of zein nanofibers with cinnamaldehyde encapsulated in surfactants at critical micelle concentration for active food packaging. Food Packaging and Shelf Life, 22, 100385 (2019)
- 50. Yuan B., Ritzoulis C.\*, Chen J. Rheological investigations of beta glucan functionality: Interactions with mucin. Food Hydrocolloids, 87, 180–186 (2019)
- 51. Lazidou D., Teknetzi I, Karapanagiotis I.\*, Ritzoulis C., Panayiotou C. Poly(vinyl alcohol)- borax films as cleaning agents for icons. Archaeological and Anthropological Sciences, 11, 26259–6271 (2019)
- 52. Glumac M., Chen J.\*, Ritzoulis C., Surface properties of adsorbed salivary components at a solid hydrophobic surface using a quartz crystal microbalance with dissipation (QCM–D). Food Hydrocolloids 97, 105195 (2019)

<u>Christos Ritzoulis</u> <u>September 2023</u>

53. Koliastasi A., Kompothekra V., Giotis C\*, Kalogianni E.P., Moustakas A.K., Skotti E.P., Gerakis A., Ritzoulis C. Emulsifiers from partially composted olive waste. Foods, 8, 271 (2019)

- 54. Niu F., Ahmad M., Fan J., Ritzoulis C., Chen J., Luo Z., Pan W.\* The Application of Diffusing Wave Spectroscopy (DWS) in Soft Foods. Food Hydrocolloids 96, 671–680 (2019)
- 55. Shao P.\*, Feng J., Sun P., Ritzoulis C. Improved emulsion stability and resveratrol encapsulation by whey protein/ gum arabic interaction at oil-water interface. International Journal of Biological Macromolecules 133, 466–472 (2019)
- 56. Liu W.\*, Lou H., Ritzoulis C., Chen X., Shen P., Lu Y., Wu K., Dong L., Zhu H., Han J. Structural characterization of soybean milk particles during in vitro digestive/non-digestive simulation. LWT-Food Science and Technology, 108, 326–331 (2019)
- 57. Koukoura E., Panagiotopoulou M., Pavlou A., Karageorgiou V., Fatouros D.G., Vasiliadou C, Ritzoulis C.\* In vitro digestion of caseinate and Tween 20 emulsions. Food Biophysics, 14, 60–68 (2018)
- 58. Glumac M., Qin L., Chen J\*., Ritzoulis C. Saliva could act as an emulsifier during the oral processing of oil/fat. Journal of Texture Studies, 50, 83–89 (2019)
- 59. Papoti V.T.\*, Totomis N., Atmatzidou A. Zinoviadou K. Androulaki A., Petridis D., Ritzoulis C. Phytochemical content of Melissa officinalis L. herbal preparations appropriate for consumption. Processes, 7, 88 (2019)
- 60. Ahmad M., Ritzoulis C., Chen J.\* Shear and extensional rheological characterisation of mucin solutions. Colloids and Surfaces B: Biointerfaces 170, 614–621 (2018)
- 61. Yuan B., Ritzoulis C\*, Chen J. Extensional and shear rheology of okra polysaccharides in the presence of artificial saliva. NPJ Science of Food, 2, 20 (2018)
- 62. Lousinian S., Mackie A.R., Rigby N.M., Panayiotou C., Ritzoulis C.\* Microcalorimetry of the intestinal mucus: Hydrogen bonding and self-assembly of mucin. International Journal of Biological Macromolecules, 112, 555–560 (2018)
- 63. Yuan B., Ritzoulis C.\*, Chen J. Extensional and shear rheology of okra hydrocolloid–saliva mixtures. Food Research International, 106, 204–212 (2018)
- 64. Yuan B., Ritzoulis C.\*, Chen J. Extensional and shear rheology of a food hydrocolloid. Food Hydrocolloids 74, 296–306 (2018)
- 65. Lykopoulou V., Karageorgiou V., Vasiliadou C., Ritzoulis C.\* Local dynamics during the mixing of saliva with a model colloidal food. Food Biophysics 12, 433–438 (2017)
- 66. Kontogiannidou E., Demertzidou V.P., Andreadis D.A., Demiri E., Ritzoulis C., Zografos A.L., Fatouros D.\* Evaluation of sesquiterpenes as permeation enhancers for a model macromolecule across human skin in vitro. Journal of Drug Delivery Science and Technology 41, 384 389 (2017)
- 67. Lousinian S., Dimopoulou M., Panayiotou C., Ritzoulis C.\* Self-assembly of a food hydrocolloid: The case of okra mucilage. Food Hydrocolloids 66, 190–198 (2017)

68. Tsatsaragkou K., Kara T., Ritzoulis C., Mandala I., Rosell C.M.\* Improving carob flour performance for making gluten-free breads by particle size fractionation and jet milling. Food and Bioprocess Technology 10, 831–841 (2017)

- 69. Ritzoulis C.\* Mucilage formation in food: A review on the example of okra. International Journal of Food Science and Technology 52, 59 67 (2017)
- 70. Drakos A., Kyriakakis G., Evangeliou V., Protonotariou S., Mandala I.\*, Ritzoulis C.. Influence of jet milling and particle size on the composition, physicochemical and mechanical properties of barley and rye flours. Food Chemistry, 15, 326 332 (2017)
- 71. Avgidou M., Dimopoulou M., Mackie A.R., Rigby N.M., Ritzoulis C., Panayiotou C.\* Physicochemical aspects of mucosa surface. RSC Advances 6, 102634–102646 (2016)
- 72. Pavlou A., Ritzoulis C.\* Filotheou A., Panayiotou C. Emulsifiers extracted from winery waste. Waste and Biomass Valorization, 7, 533–542 (2016)
- 73. Dimopoulou M., Tsivintzelis I., Ritzoulis C.\*, Panayiotou C. Thermodynamics of a food macromolecular assembly: The case of okra mucilage. RSC Advances 6, 20916–20925 (2016)
- 74. Temenouga V., Charitidis T., Avgidou M., Karayannakidis P.D., Dimopoulou M., Kalogianni E.P., Panayiotou C., Ritzoulis, C.\* Novel emulsifiers as products from internal Maillard reactions in okra hydrocolloid mucilage. Food Hydrocolloids 52, 972–981 (2016)
- 75. Margelou I., Ritzoulis C.\*, Papageorgiou M. A Size Exclusion Chromatography-Based In Vitro Examination of Some Aspects of Bread Digestion. Food Digestion 6, 38–44 (2015)
- 76. Georgiou D., Marinopoulou A., Ritzoulis C., Papastergiadis E.F. Kalogianni E.P.\* Capillary penetration in cellulose and polyethylene porous media: Effect of contact with vapours and partial saturation with a non-miscible liquid. Colloids and Surfaces A: Physicochemical and Engineering Aspects 483, 297–306 (2015)
- 77. Filotheou A., Ritzoulis C.\*, Avgidou M., Kalogianni E., Pavlou A., Panayiotou C. Novel emulsifiers from olive processing solid waste. Food Hydrocolloids 48, 274–281 (2015)
- 78. Dimopoulou M., Ritzoulis C.\*, Panayiotou C. Surface characterization of okra hydrocolloid extract by inverse gas chromatography (IGC). Colloids and Surfaces A: Physicochemical and Engineering Aspects 475, 37–43 (2015)
- 79. Ritzoulis C.\*, Marini E., Aslanidou A., Georgiadis N., Karayannakidis P.D., Koukiotis C., Filotheou A., Lousinian S., Tzimpilis E., Hydrocolloids from quince seed: Extraction, characterization, and study of their emulsifying/stabilizing capacity. Food Hydrocolloids 42, 178–186 (2014)
- 80. Petridis D.\*, Raizi P., Ritzoulis C. Influence of citrus fiber, rice bran and collagen on the organoleptic properties of low-fat frankfurters. Journal of Food Processing and Preservation 38, 1759–1771 (2014)
- 81. Dimopoulou M., Ritzoulis C.\*, Papastergiadis E., Panayiotou C. Composite Materials Based on Okra Hydrocolloid and Hydroxyapatite. Food Hydrocolloids 42, 348–354 (2014)
- 82. Protonotariou S., Drakos A., Evangeliou V., Ritzoulis C., Mandala I.\* Sieving fractionation and jet mill micronization affect the functional properties of wheat flour. Journal of Food Engineering 134, 24–29 (2014)

83. Rousi Z., Ritzoulis C.\*, Karayannakidis P.D. Emulsion Flocculation and Stability in a Simple in Vitro Gastrointestinal Model. Food Digestion 5, 1–7 (2014)

- 84. Zarogoulidis P.\*, Kioumis I., Tsiouda T., Perzikianidis N., Ritzoulis C., Huang H., Hohenforst- Schmidt W., Spyratos D., Pospodis K., Pitsiou G., Lampaki S., Organtzis J., Malecki B.K., Saetre S.E. Zarogoulidis K., Malecki M. Novel Approach for Designing Supportive Care in Genetic Disorders of Gastrointestinal Tract: Three-Dimensional Polymer Model of Nutritional Therapies in Cystic Fibrosis, Ulcerative Colitis, and Crohn's Disease. Journal of Nanomedicine and Biotherapeutic Discovery 4, 1000128 (2014)
- 85. Alba K., Ritzoulis C., Georgiadis N., Kontogiorgos V.\* Okra extracts as emulsifiers for acidic emulsions. Food Research International 54, 1730–1737 (2013)
- 86. Zarogoulidis P.\*, Petridis D., Ritzoulis C., Li Q., Huang H., Ning Y., Darwiche K., Freitag L., Zarogoulidids K. Further experimentation of inhaled; Lantus, Actrapid and Humulin with todays' production systems. International Journal of Pharmaceutics 458, 39–47 (2013)
- 87. Zarogoulidis P.\*, Petridis D., Ritzoulis C., Darwiche K., Kioumis I., Porpodis K., Spyratos D., Hohenforst-Schmidt W., Yarmus L., Huang H., Li Q., Freitag L., Zarogoulidis K. Internal mouthpiece designs as a future perspective for enhanced aerosol deposition. Comparative results for aerosol chemotherapy and aerosol antibiotics. International Journal of Pharmaceutics 456, 325–331 (2013)
- 88. Zarogoulidis P.\*, Kioumis I. Ritzoulis C., Petridis D., Darwiche K., Porpodis K., Spyratos D., Parrish S., Browning R., Li Q., Turner J.F., Freitag L., Zarogoulidis K. New insights in the production of aerosol antibiotics. Evaluation of the optimal aerosol production system for ampicillin-sulbactam, meropenem, ceftazidime, cefepime and piperacillin-tazobactam. International Journal of Pharmaceutics 455, 182–188 (2013)
- 89. Darwiche K., Zarogoulidis P.\*, Ritzoulis C., Hohenforst- Schmidt W., Sakkas L., Cheva A., Sakkas A., Spyratos D., Sparopoulou D., Zarogoulidis K. DEAE-Dextran MMA copolymer non- viral vector for aerosol therapy in non-respiratory diseases. European Respiratory Journal 42, 1599 (2013)
- 90. Rhoades J., Gialagkolidou K., Gogou M., Mavridou O., Blatsiotis N., Ritzoulis C., Likotrafiti E.\* Oregano essential oil as an antimicrobial additive to detergent for hand washing and food contact surface cleaning. Journal of Applied Microbiology 115, 987–994 (2013)
- 21. Zarogoulidis P.\*, Petridis D., Ritzoulis C., Darwiche K., Spyratos D., Huang H., Goldberg E.P., Yarmus L., Li Q., Freitag L., Zarogoulidis K. Establishing the optimal nebulization system for paclitaxel, docetaxel, cisplatin, carboplatin and gemcitabine: Back to drawing the residual cup. International Journal of Pharmaceutics 453, 480–487 (2013)
- 92. Vasilakoglou I., Dhima K.\*, Paschalidis K., Ritzoulis V. Herbicidal potential on Lolium rigidum of nineteen major essential oil components and their synergy. Journal of Essential Oil Research 25, 1–10 (2013)
- 93. Petridis D.\*, Ritzoulis C., Tzivanos I., Vlazakis E., Derlikis E., Vareltzis P. Effect of fat volume fraction, sodium caseinate, and starch on the optimization of the sensory properties of frankfurter sausages. Food Science & Nutrition 1, 32–44 (2013)
- 94. Kontogiorgos V.\*, Margelou I., Georgiadis N., Ritzoulis C.: Rheological characterization of okra pectins. Food Hydrocolloids 29, 356–362 (2012)
- 95. Ritzoulis C.\*, Siasios S., Melikidou K.D., Koukiotis C., Vasiliadou C., Lolakos S. Interactions between pig gastric mucin and sodium caseinate in solutions and in emulsions. Food Hydrocolloids 29, 382–388 (2012)

96. Georgiadis N., Ritzoulis C.\*, Charchari E., Koukiotis C., Tsioptsias C., Vasiliadou C. Isolation, characterization and emulsion stabilizing properties of polysaccharides from orchid roots (salep) Food Hydrocolloids 28, 68–74 (2012)

- 97. Georgiadis N., Ritzoulis C.\*, Sioura G., Kornezou P., Vasiliadou C., Tsioptsias C. Contribution of okra extracts to the stability and rheology of oil–in–water emulsions. Food Hydrocolloids 25, 991–999 (2011)
- 98. Petridis D.\*, Vlazakis El., Tzivanos lak., Derlikis Em., Ritzoulis C. Effects of selected ingredients and fat content on the sensory and mechanical properties of frankfurter-type sausages. Journal of Texture Studies 41, 880–898 (2010)
- 99. Dhima K.\*, Vasilakoglou I., Garane V., Ritzoulis C., Lianopoulou V., Panou-Philotheou E., Competitiveness and Essential Oil Phytotoxicity of Seven Annual Aromatic Plants. Weed Science 58, 457–465 (2010)
- 100. Ritzoulis C., Strobl M.\*, Beckmann F., Vasiliadou C., Vasilakos V., Tsioptsias C., Choinka G., Hertzen J., Donath T. Ultra-small angle neutron scattering and X-ray tomography studies of caseinate—hydroxyapatite microporous materials. Materials Chemistry and Physics 123, 77–82 (2010)
- 101. Ritzoulis C.\*, Petridis D., Derlikis Em., Fytianos K., Asteriou P. Utilization of Inverse Water– in–Oil Emulsions as Fat Replacers in Frankfurter Model Sausages: Influence of Fat Emulsion Content on the Organoleptic and Mechanical Properties. Journal of Texture Studies 41, 62–74 (2010)
- 102. Strobl M.\*, Treimer W., Ritzoulis C., Wagh A.G., Abbas S., Mankeb I. The new V12 USANS and Tomography Instrument at HMI Berlin. Journal of Applied Crystallography 40, s1-3 (2007)
- 103. Kontogiorgos V., Ritzoulis C., Biliaderis C.G.\*, Kasapis S. Effect of barley  $\beta$ -glucan concentration on the microstructural and mechanical behaviour of acid-set sodium caseinate gels. Food Hydrocolloids 20, 749–756 (2006)
- 104. Ritzoulis C., Scoutaris N., Demetriou E., Papademetriou K., Kokkou S., Stavroulias S., Panayiotou C.\* Formation of Hydroxyapatite/Biopolymer Biomaterials. I. Microporous composites from solidified emulsions. Journal of Biomedical Materials Research A 71A, 675–684 (2004)
- 105. Ritzoulis C., Scoutaris N., Papademetriou K., Stavroulias S., Panayiotou C.\* Milk Protein– Based Emulsion Gels for Bone Tissue Engineering. Food Hydrocolloids 19, 575–581 (2004)
- 106. Ritzoulis C., Dickinson E.,\* Povey M.J.W., Wang Y. Ultrasonic studies of the development of flocculation in mixed sodium caseinate and Tween 20 emulsions. Progress in Colloid and Polymer Science 118, 132–135 (2001)
- 107. Dickinson E.\*, Semenova M.G., Belyakova L.E., Antipova A.S., Il'in M.M., Tsapkina E., Ritzoulis C. Analysis of Light Scattering Data on the Calcium Ion Sensitivity of Caseinate Solution Thermodynamics: Relationship to Emulsion Flocculation. Journal of Colloid and Interface Science 239, 87–97 (2001)
- 108. Dickinson E., Ritzoulis C. Creaming and Rheology of oil-in-Water Emulsions Containing Sodium Dodecyl Sulfate and Sodium Caseinate. Journal of Colloid and Interface Science 224, 148–154 (2000)
- 109. Moumouzias G., Ritzoulis C., Ritzoulis G.\* A Study in Mixtures of γ-Butyrolactone with o- Xylene and m-Xylene: Densities and Viscosities. Journal of Chemical and Engineering Data 44, 1187–1191 (1999)
- 110. Dickinson E.\*, Ritzoulis C., Povey M.J.W. Stability of Emulsions Containing Both Sodium Caseinate and Tween 20. Journal of Colloid and Interface Science 212, 466–473 (1999)

111. Dickinson E\*, Ritzoulis C., Yamamoto Y., Logan H. Ostwald ripening of protein-stabilized emulsions: effect of transglutaminase crosslinking. Colloids and Surfaces B: Biointefaces 12, 139–146 (1999)

# **Conferences and workshops**

Been invited, attended and presented at numerous conferences and workshops.