

VASSILIS KARAGEORGIU

Work address: Department of Food Science and Technology, School of Geosciences, International Hellenic University, Sindos, Thessaloniki, Greece

Telephone: + 30 2310 013906

E-mail: vkarageorgiou@ihu.gr

AREAS OF RESEARCH INTEREST

- Biomaterials, Drug and Nutrients Delivery, Biodegradable Food Packaging Materials, Biomedical Engineering, Tissue Engineering, Nanotechnology

EDUCATION

- Ph. D., Chemical and Biological Engineering, August 2004, Tufts University, MA, USA
Field of studies: Tissue Engineering, Biomaterials, Drug Delivery
Thesis title: “Bioinductive Protein-Based Scaffolds for Human Bone Marrow Stromal Cells Differentiation”
- Diploma, Chemical Engineering, March 1998, Aristotle University of Thessaloniki, Thessaloniki, Greece (GPA 8/10)
Thesis title: “Determination of Copolymer Molecular Weight Using Gel Permeation Chromatography (GPC) and Viscometry”

TEACHING EXPERIENCE

INTERNATIONAL HELLENIC UNIVERSITY, THESSALONIKI, GREECE

Department of Food Science and Technology

Professor

Dec. 2025 - present

Lecturing the courses Food Engineering II and Nanotechnology-Biomaterials and instructing in the labs of Food Engineering I, Food Engineering II, Food Processing II, Food Processing II, Food Packaging and Scientific Report Writing (Seminar). Lecturing the courses Applied Engineering and Food Processing Operations and Academic Writing and Presentation in the MSc Program “Quality, Production and Administration in the Food Industry”.

INTERNATIONAL HELLENIC UNIVERSITY, THESSALONIKI, GREECE

Department of Food Science and Technology

Associate Professor

Dec. 2021 – Dec. 2025

Lecturing the courses Food Engineering II and Nanotechnology-Biomaterials and instructing in the labs of Food Engineering I, Food Engineering II, Food Processing II, Food Processing II, Food Packaging and Scientific Report Writing (Seminar).

Participation in Educational Projects:

1. Vice Scientific Director, Seminars on Cured Meat and Meat Products Preparation, Continuous Education and Lifelong Learning Center, International Hellenic University, February 2024 – April 2024

INTERNATIONAL HELLENIC UNIVERSITY, THESSALONIKI, GREECE

Department of Food Science and Technology

Assistant Professor

Sep. 2019 – Dec. 2021

Lecturing the courses Food Engineering II and Nanotechnology-Biomaterials and instructing in the labs of Food Engineering I, Food Engineering II, Food Processing II, Food Processing II, Food Packaging and Scientific Report Writing (Seminar).

**TECHNOLOGICAL EDUCATIONAL INSTITUTE OF THESSALONIKI, THESSALONIKI,
GREECE**

Assistant Professor

Apr. 2015 – Sep. 2019

Lecturing the courses Food Engineering II and Biotechnology-Nanotechnology-Biomaterials and instructing in the labs of Food Engineering II, Food Processing II, Food Packaging, Scientific Report Writing (Seminar) and Technology and Quality Control of Fish and Fish Products.

**TECHNOLOGICAL EDUCATIONAL INSTITUTE OF THESSALONIKI, THESSALONIKI,
GREECE**

Department Of Food Technology

Professor of Applications

Jun. 2010 – Apr. 2015

Lecturing the courses Food Engineering II and Biotechnology-Nanotechnology-Biomaterials and instructing in the labs of Food Engineering I, Food Engineering II, Food Processing I, Food Processing II, Food Packaging and Scientific Report Writing (Seminar).

**TECHNOLOGICAL EDUCATIONAL INSTITUTE OF THESSALONIKI, THESSALONIKI,
GREECE**

Department Of Food Technology

Scientific Collaborator

Oct. 2005 – Sep. 2008

Lecturing the course Food Engineering I.

UNIVERSITY OF NEW YORK IN SKOPJE, SKOPJE, NORTH MACEDONIA

Department of Business Administration

Assistant Professor

Oct. 2005 – Sep. 2006

Lecturing the courses Calculus I, Calculus II, College Algebra, College Trigonometry.

TUFTS UNIVERSITY, MEDFORD, USA

Department of Chemical and Biological Engineering

Teaching Assistant

Jan. 2002 – May 2002 and Jan. 2003 – May 2003

Teaching experience in classroom lectures and laboratory experiments as part of the course of Biotechnology Processing Projects Laboratory. Trained new graduate students to lab policies and procedures. Supervised undergraduate student thesis research.

RESEARCH EXPERIENCE

INTERNATIONAL HELLENIC UNIVERSITY / TECHNOLOGICAL EDUCATIONAL INSTITUTE OF THESSALONIKI, THESSALONIKI, GREECE

Department of Food Science and Technology / Department of Food Technology

Professor	Dec. 2025 – present
Associate Professor	Dec. 2021 – Dec. 2025
Assistant Professor	Apr. 2015 – Dec. 2021
Professor of Applications	Jun. 2010 – Apr. 2015

Research in the areas of Biomaterials, Food Packaging, Drug and Nutrients Delivery, Tissue Engineering and Nanotechnology using mainly biomaterials from food sources.

Coordinator/Scientifically-in-charge in Research Projects:

1. Interactions of Food Components with Saliva Components: From Thermodynamics to Texture, Hellenic Foundation for Research and Innovation, budget 32.400 €, Dec. 2024 - present
2. Study of Phenolic Compounds – Polysaccharide Systems, Hellenic Foundation for Research and Innovation, budget 20.700 €, Dec. 2024 - present
3. Dissemination of Research Results in Colloidal Foods, value-added project, International Hellenic University Special Account for Research Funds, budget 4.761,12 €, Dec. 2024 - present
4. Starch Based Active Biodegradable Food Packaging, General Secretariat for Research and Technology, Operational Programme Competitiveness, Entrepreneurship and Innovation 2014-2020, budget 594.557 € (IHU budget 241.047 €), Mar. 2020 – present
5. Strengthening Public Research and Innovation Infrastructure of the Department of Food Technology of ATEI Thessaloniki, Region of Central Macedonia Operational Program, budget 595.000 €, Dec. 2017 – present
6. Biomaterials from Natural Polymers for Drug Delivery Application, IKYDA 2012, budget 14.400 €, Jan. 2012 – Dec. 2014

Participation in Research Projects:

1. Photosynthetic Microalgae Cultures for the Sustainable Production of Products of High Nutritional Value for Humans, Fish and Animals, General Secretariat for Research and

Technology, Operational Programme Competitiveness, Entrepreneurship and Innovation 2014-2020, budget 999.410,75 € (IHU budget 174.147,83 €), Sep. 2020 – Sep. 2023

2. Recovery, Characterization and Practical Applications of Hydrocolloids from Olives and Grapes Byproducts, General Secretariat for Research and Technology, Operational Programme Competitiveness and Entrepreneurship 2007-2013, budget 433.384 € (ATEITH budget 124.238 €), Mar. 2013 – Jun. 2015
3. New Processes for Fouling Control in Membrane Bioreactors, General Secretariat for Research and Technology, Operational Programme Competitiveness and Entrepreneurship 2007-2013, budget 555.137 € (ATEITH budget 127.279 €), Mar. 2013 – Jul. 2014

Patents

1. Karageorgiou, V., Goulas, A., Mrinopoulou, A., Fragopoulos, T., Raphaelides, S. Production of Biodegradable Flexible Packaging Materials with Prearranged Functional Characteristics, Hellenic Industrial Property Organization, patent No: 1010907 - 11/03/2025

Ph.D. Thesis Advisor:

1. Theocharidou A.: Study of Phenolic Compounds – Polysaccharide Systems, 2025
2. Frangopoulos T.: Active Biodegradable Food Packaging Based on Starch – Bioactive Compounds Molecular Complexes and Nanoclay, 2024

M.Sc. Thesis Advisor:

1. Kannidou E.: Optimization of the Mechanical Properties and Water Vapor Barrier Properties of Rice and Bean Starch Based Biodegradable Food Packaging Films, 2024
2. Ketesidis A.: Assessment of Starch-Based Packaging Films Strength Model Using Acceleration Tests, 2023
3. Koutloupasis A.: Synthesis of Hydrogels with Controlled Porosity, 2022
4. Konstantakos S.: Study of Starch Hydrogels Synthesis, 2017

Undergraduate Thesis Advisor:

1. Mpetas I. and Papagiannis I.: Preparation of Okra Polysaccharide Microparticles Using a Spray Dryer, 2025

2. Kokkinis G. and Papadopoulos D.-S.: Apple Dehydration in a Tray Dryer, 2025
3. Karadiamanti K. And Pilali E.: Laminating and Heat Sealing of Starch-Based Biodegradable Packaging Films, 2025
4. Daglis A. and Iordanidis K.: Preparation of Starch Fatty Acid Complexes in Powder Form Using Spray Drying, 2025
5. Pappa A. and Sinegalias N.: Assessment of Physicochemical Properties and Color of Fresh Minced Meat Packaged in Starch Films with Linalool Fortified with Nanoclay, 2025
6. Fetska S. and Veskou E.: Study of the Physicochemicals Parameters of Meat Packaged in Biodegradable Starch Films, 2025
7. Chaideraki C. and Pappa L.: 3-D Printing of Aerated oleogel from MCT Oil, 2025 (co-supervising with Dr. Ritzoulis)
8. Giannikis S.-P. and Gravanis A.: Study of Storing Rices And Legumes in Starch Packaging with Ascorbic Acid, 2024
9. Kiourtzidou M. and Matsias G.: Using Olive Core Powder as Reinforcer in Starch Packaging, 2024
10. Giagoula G. and Zachariadis A.: Effect of Artificial Aging on Lentils, Brown Rice and Basmati Rice Packaged in Starch Films with Bioactive Substances, 2024
11. Iatridou S. and Kivirtziki M.-K.: Assessment of the Physicochemical Properties and Color of Fresh Ground Beef Packaged in Starch Films with Ascorbic Acid Reinforced with Nanoclay, 2024
12. Koulaki E. and Lioli A.: Effect of Glycerol Concentration on Starch-Based Packaging Film Failure after Stress Tests, 2024
13. Mati E. and Triantafillou V.: Study of the Physicochemical Properties of Minced Meat Preserved under Refrigeration in Starch Film with Antioxidant Substances, 2023
14. Tosounidou A. and Tsihlikis K.-M.: Properties after the Molecular Encapsulation of Antioxidants and Degradation with the Bury in Soil Method of Starch Based Packaging Films, 2023
15. Osman T. and Thanou I.: Investigation of the critical porosity for the degradation rate of starch hydrogels, 2023

16. Flegka D. and Ili S.: Starch based packaging films antioxidant ability study using the DPPH method, 2023
17. Arampatzidou A.-M. and Tsekmes L.: Starch based packaging films permeability measurement, 2023
18. Noulis K.: Crosslinker Effect on Starch – Based Films, 2022
19. Basinas P. and Papadopoulos I.: Degradation of Controlled Porosity Starch Hydrogels, 2021
20. Papalouka V.: Study of Dried Persimmon Properties, 2021
21. Asiatidis I.-A. and Zafiroopoulos X.: Starch Extraction from Rice and Legumes Byproducts, 2021
22. Kafouna A. and Parastatidou V.: Biodegradability Assessment of Starch Films Using Burry in Soil Method, 2021
23. Nikolaou P. and Peppas M.: Synthesis of Starch-Paracetamol Complex Hydrogels, 2020
24. Askaridou M. and Kapetanidou S.: Preparation of White Brine Cheese Using a Plant Enzyme Derived from the Fig Tree, 2020
25. Kavvadias I. and Psomas A.: Porosity Control in Okra Polysaccharide Hydrogels, 2020
26. Charalampous C. and Vaharakis N.: Study of the Thermal Processing Progress in Food Using Microwaves, 2019
27. Aslampaloglou A. and Tzikas A.: Production of Starch Complexes with Therapeutical Substances, 2019
28. Katsavidis E. and Sisiropoulos K.: Amylose – Free Fatty Acid Complex Packaging Films, 2019
29. Karampalasi L. and Siomou A.: Study of Flow Properties of Starch Powder, 2019
30. Mirouli R.-F. and Sakka E.: Synthesis of Starch Hydrogels Using Porogenic Medium, 2019
31. Chatzi F. and Tsitsipoulou C.: Study of the Parameters Affecting Power Consumption in Agitation Processes, 2018
32. Chatzistamatoglou S. and Mpellos K.: Starch – Fatty Acid Complexes as Pharmaceuticals Excipients, 2018
33. Sarantis A.: Study of Casein Micelles Structure in Presence of Calcium, 2018
34. Karakousi M. and Karamitrou C.: Substance Release from Starch Hydrogels with Controlled Porosity, 2018
35. Diakonikola E. and Pantelidis A.: Increase of Alcohol Concentration in Alcohol-Water Mixtures with Various Filtration Methods, 2017
36. Stamatiou I. and Vakalopoulos-Paschalidis A.: Tuna Skin Gelatin Hydrogels Degradation, 2017

37. Kapidis B. and Karatzios D.: Preparation and Characterization of Biodegradable – Nanocomposite Thermoplastic Starch – Montmorillonite Films, 2017
38. Karamalaki M. and Saridou E.: Albumin Release from Starch Hydrogels, 2017
39. Efthimiou M. and Lazos A.: Study of the Factors Affecting Fibroin Hydrogels Synthesis, 2017
40. Iordanidis G.: Quantitative Analysis of Estrogens in Women and Female Rats by GC-MS/MS and PLC-MS/MS Chromatographic Methods, 2016 (co-supervising with Prof. Leane Lehmann, Julius-Maximilians-Universität of Würzburg)
41. Papafotiou I.: Study of Sugar and Mass Changes in Osmotically Dehydrated Kiwis, 2016
42. Kourkopoulos A.: Investigation of the Effect of Relative Humidity and Metal Coating Thickness on the Growth Rate of Filiform Corrosion in Trivalent Chromium Plated Steel Specimens, 2016 (co-supervising with Prof. Hamilton McMurray, Swansea University)
43. Karafillidou M. and Sellidou E.: Topical Skin Gelatin Gels for Drug Delivery, 2015
44. Amanatidou S. and Saliari N.: Study of Osmotic Drying of Kiwis with Emphasis on the Mechanical Properties and Drip Loss, 2014
45. Dagkas O. and Voulgaropoulos O.: Ascorbic Acid Determination in Osmotically Dehydrated Kiwis, 2014
46. Giannak O. and Laskari Z.-S.: Particle Synthesis Using the Polysaccharide Kefiran for Nutrient or Drug Encapsulation, 2014
47. Chrysanthopoulou F. and Zioga M.: Encapsulation of Bovine Serum Albumin in Starch Particles, 2014
48. Emmanouilidou M. and Kolothas E.: Study of the Synthesis and Rheological Behavior of Hydrogels from Natural Potato Starch and Sodium Trimetaphosphate, 2014
49. Eleftheriadis T. and Grigorakis K.: Study of the Parameters Affecting the Drying Process in a Tray Dryer, 2014
50. Sinana H.: Protein Removal from Salep HBSS, 2013
51. Skoufa M.: Study of the Synthesis of Microparticles from Salep HBSS, 2013
52. Loizou C. and Vakali M.: Study of the Synthesis of Fibroin Hydrogels with Glucomannan, 2013
53. Koutoglou I. and Mekiki A.: Interactions between Plant Extract Polysaccharides and Pig Gastric Mucin, 2012

54. Karnakis K.: Clarification and Purification of FGF and FGF-BP1 from HEK Cells Transfected with FGF Vector, 2012 (co-supervising with Dr. Tessa Luehmann, Julius-Maximilians-Universität of Würzburg)
55. Anagnostou N. and Lampridis D.: Study of the Synthesis of Silk Fibroin Hydrogels Using Different Sugars, 2012
56. Asimoglou D. and Tsikrikoni C.: Encapsulation and Release of Sodium Caseinate from Starch Nanoparticles, 2012
57. Bami E. and Karamanli M.: Study of the Synthesis of Starch Nanoparticles, 2011

CENTRE FOR RESEARCH AND TECHNOLOGY – HELLAS, THESSALONIKI, GREECE

Chemical Process Engineering Research Institute

Collaborating Researcher

Sep. 2006 – May 2010

Participating in the IP NMP4-CT-2006-026723 research project Nanoscale Functionalities for Targeted Delivery of Biopharmaceutics (NANO(BIOPHARMACEUTICS)) funded by the European Union. Synthesis of functionalized PLGA nanoparticles for delivery of protein/peptide drugs and vaccines via the pulmonary, oral and nasal administration routes. Development of *in vitro* models for the transport of synthesized nanocarriers across epithelial barriers. Toxicological assessment of synthesized carriers. Research experience in protein encapsulation in nanoparticles, analytical techniques, cell culturing, *in vitro* experiments, atomic force microscopy (AFM). Experience in writing proposals for research grants. Supervised undergraduate student diploma thesis research.

Diploma Thesis Supervised:

1. Bourganis V. and Karamanidou T.: Synthesis and Characterization of 3-Dimensional Porous PLGA Scaffolds for Bone and Cartilage Regeneration Applications, Aristotle University of Thessaloniki, 2010

TUFTS UNIVERSITY, MEDFORD, USA

Department of Chemical and Biological Engineering

Research Assistant

Aug. 1998 – Aug. 2004

Participating in the Silk Protein Assembly (DMR0402849) research project funded by the National Science Foundation and the Bone Tissue Engineering (De13405-04) research project funded by the

National Institute of Health. Research in the area of Tissue Engineering, Biomaterials and Drug Delivery. Studied silk as a potential biomaterial for mesenchymal stem cell differentiation and bone regeneration both in films and porous scaffolds. Immobilized bone morphogenetic protein-2 (BMP-2) on silk films and used porous silk scaffolds as BMP-2 delivery system. Experience in biomaterials development, surface chemistry, cell culture, analytical techniques, X-ray photoelectron spectroscopy, *in vitro* and some *in vivo* experiments. Responsible for maintaining the Tissue Engineering laboratory of the Chemical and Biological Engineering and Biomedical Engineering Departments.

Undergraduate Thesis Supervised:

1. Tomkins M.: 3-D Silk Scaffolds for BMP-2 Delivery Project, 2004
2. Malhotra A.: Immobilizing BMP-2 on Silk Films Project, 2003

ADMINISTRATIVE ACTIVITY

INTERNATIONAL HELLENIC UNIVERSITY / TECHNOLOGICAL EDUCATIONAL INSTITUTE OF THESSALONIKI, THESSALONIKI, GREECE

Department of Food Science and Technology / Department of Food Technology

1. Director of the Food Process Engineering Laboratory Sept. 2024 – present
2. Representative of the Department in the Assembly of the Faculty of Geotechnical Sciences Sep. 2024 – present
3. Deputy Director of the Special Infrastructure Courses Sector Sep.2014 – Aug. 2015

REVIEWER IN SCIENTIFIC JOURNALS

- Biomaterials (IF 14)
- International Journal of Biological Macromolecules (IF 7,7)
- Sustainable Chemistry and Pharmacy (IF 5,5)
- Biomolecules (IF 5,5)
- European Journal of Pharmaceutics and Biopharmaceutics (IF 4,9)
- Foods (IF 4,7)
- Starch (IF 2,3)
- Colloid and Polymer Science (IF 2,2)

AWARDS AND DISTINCTIONS

- According to the data repository "Updated science-wide author databases of standardized citation indicators" (<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/>) I belong to the top world 2% of my scientific area for the years 2017 – 2023
- The article «Porosity of 3D Biomaterial Scaffolds and Osteogenesis» in Biomaterials, Volume 26, Issue 27, Pages 5474-5491 (2005), cited 237 times, was 4th in the list of most cited publications in

the field of Chemical Engineering for the years 2005 – 2009 according to the SCOPUS scientific database (<http://info.scopus.com/topcited/>)

- Outstanding Graduate Researcher in Engineering Award, Graduate School of Arts & Sciences and School of Engineering, Tufts University, April 2004

SKILLS

- **Languages:** Greek (native speaker)
English - perfect (Certificate of Proficiency in English, University of Cambridge)
French - perfect (Diplôme d' Etudes Françaises 2^e Degré, Université de Paris-Sorbonne, Paris IV)
- **Computers:** Windows, Mac OS, MS Office, SPSS, Minitab

PUBLICATIONS IN PEER REVIEWED JOURNALS

Citations: 10192, *h-index:* 20 (Scopus)

1. Tsiptsias K., Goulas A., Tsini M., Zoglopiti A., Marinopoulou A., **Karageorgiou V.**: Predicting packaging material-food interactions and the respective migration and permeation based on Hansen Solubility Parameters. A case study of the biobased polyester cutin. *Polymers* 17:2961 (2025)
2. Kazantzi E., Christou M., Frangopoulos T., Marinopoulou A., Goulas A., Petridis D., **Karageorgiou V.**: On the rheological memory and cumulative damage of thermoplastic starch biodegradable films reinforced with nanoclay. *Applied Sciences* 15:11166 (2025)
3. Marinopoulou A., Zoumaki M., Sampanis D., **Karageorgiou V.**, Raphaelides S., Goulas A.: A comparative study of the structural, morphological, and functional properties of native potato starch and spray-dried potato starch. *Applied Sciences* 15:4566 (2025)
4. Frangopoulos T., Marinopoulou A., Petridis D., Likotrafiti E., Rhoades J., Goulas A., Fetska S., Flegka D., Mati E., Tosounidou A., Triantafillou V., Tsihlikis K., Veskou E., Ylli S., **Karageorgiou V.**: Films from starch inclusion complexes with bioactive compounds as food packaging material. *Food and Bioprocess Technology* 18: 5164-5179 (2025)
5. Frangopoulos T., Ketesidis A., Marinopoulou A., Goulas A., Petridis D., **Karageorgiou V.**: Accelerated life testing of biodegradable starch films with nanoclay using the elongation level as a stressor. *Foods* 13: 3333 (2024)
6. Frangopoulos T., Dimitriadou S., Ozuni J., Marinopoulou A., Goulas A., Petridis D., **Karageorgiou V.**: Assessing the fatigue stress behavior of starch biodegradable films with nanoclay using accelerated survival test methods. *Applied Sciences* 14: 7728 (2024)
7. Koutloumpasis A., Papadopoulos I., Karakousi M., Karamitrou C., Mirouli R.-F., Mpasinas P., Sakka E., Tzimtzimis E., Tzetzis D., Akritidou D., **Karageorgiou V.**: Controlling the porosity of starch hydrogels with poly(methyl methacrylate) (PMMA) beads. *Starch* 76: 202300152 (2024)
8. Marinopoulou A., Zoumaki M., Raphaelides S., **Karageorgiou V.**, Goulas A.: Characterization of spray dried starch systems of natural antioxidant compounds. *Starch* 76: 2300069 (2024)
9. Noulis K., Frangopoulos T., Arampatzidou A., Tsekmes L., Marinopoulou A., Goulas A., **Karageorgiou V.**: Sodium trimetaphosphate crosslinked starch films reinforced with montmorillonite. *Polymers* 15: 3540 (2023)
10. Frangopoulos T., Marinopoulou A., Goulas A., Likotrafiti E., Rhoades J., Petridis D., Kannidou E., Stamelos A., Theodoridou M., Arampatzidou A., Tosounidou A., Tsekmes L., Tsihlikis K., Gkikas

- G., Tourasanidis E., **Karageorgiou V.**: Optimizing the functional properties of starch-based biodegradable films. *Foods* 12: 2812 (2023)
11. 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* 54: 595-598 (2023)
 12. Marinopoulou A., Zoumaki M., Goulas A., Raphaelides S., **Karageorgiou V.**: Biodegradable films from spray dried starch inclusion complexes with bioactive compounds - The effect of glycerol and pH. *Starch* 74: 2200133 (2022)
 13. Marinopoulou A., Zoumaki M., Goulas A., Petridis D., Raphaelides S., Aslampaloglou A., Tzikas A., **Karageorgiou V.**: Functional characteristics and physical properties of spray dried starch inclusion complexes with drugs. *Starch* 74: 2100176 (2022)
 14. Marinopoulou A., **Karageorgiou V.**, Petridis D., Raphaelides S. N.: Physical properties of starch-paracetamol molecular inclusion complexes produced by the spray drying process on an industrial scale. *Drying Technology* 39: 1950-1967 (2021)
 15. Marinopoulou A., **Karageorgiou V.**, Iordanidis C., Dagklis A., Zoumakis N., Raphaelides S. N.: Parametric analysis of the spray drying process for the production of starch molecular inclusion complexes with fatty acids. *Drying Technology* 39: 580-595 (2021)
 16. 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)
 17. Konstantakos S., Marinopoulou A., Papaemmanouil S., Emmanouilidou M., Karamalaki M., Kolothas E., Saridou E., Papastergiadis E., **Karageorgiou V.**: Preparation of model starch complex hydrogels. *Food Hydrocolloids* 96: 365-372 (2019)
 18. Marinopoulou A., **Karageorgiou V.**, Papastergiadis E., Iordanidis C., Dagklis A., Raphaelides S. N.: Production of spray-dried starch molecular inclusion complexes on an industrial scale. *Food and Bioproducts Processing* 116: 186-195 (2019)
 19. 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 (2019)
 20. Gianak O., Pavlidou E., Sarafidis C., **Karageorgiou V.**, Deliyanni E.: Silk fibroin nanoparticles for drug delivery: effect of bovine serum albumin and magnetic nanoparticles addition on drug encapsulation and release. *Separations* 5: 25-40 (2018)

21. 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)
22. Huang H., Zarogoulidis P., Lampaki S., Organtzis J., Petridis D., Porpodis K., Papaiwannou A., **Karageorgiou V.**, Pitsiou G., Kioumis I., Hohenforst-Schmidt W., Li Q., Darwiche K., Freitag L., Rapti A., Zarogoulidis K.: Experimentation with aerosol bonsetan, pirfenidone, treprostinil and sildenafil. *Journal of Thoracic Disease* 6: 1411-1419 (2014)
23. Karagouni E., Kammona O., Margaroni M., Kotti K., **Karageorgiou V.**, Gaitanaki C., Kiparissides C.: Uptake of BSA-FITC loaded PLGA nanoparticles by bone marrow-derived dendritic cells induces maturation but not IL-12 or IL-10 production. *Nanoscience and Nanotechnology Letters* 5: 1-7 (2013)
24. Sarti F., Perera G., Hintzen F., Kotti K., **Karageorgiou V.**, Kammona O., Kiparissides C., A. Bernkop-Schnurch: *In vivo* evidence of oral vaccination with PLGA nanoparticles containing the immunostimulant monophosphoryl lipid A. *Biomaterials* 32: 4052-4057 (2011)
25. Kammona O., Alexopoulos A. H., Karakosta P., Kotti K., **Karageorgiou V.**, Kiparissides C.: Nanocarrier aided nasal vaccination: An experimental and computational approach. *Industrial and Engineering Chemistry Research* 50: 590-601 (2011)
26. Patronidou C., Karakosta P., Kotti K., Kammona O., **Karageorgiou V.**, Kiparissides C.: PLGA nanocarriers for systemic and lymphatic oral delivery of proteins and peptides. *Journal of Controlled Release* 132: e5-e6 (2008)
27. Kirker-Head C., **Karageorgiou V.**, Hofmann S., Fajardo R., Merkle H. P., Hilbe M., Rechenberg B., McCool J., Abrahamsen L., Kaplan D. L., Meinel L.: BMP-Silk Composite Matrices Heal Critically Sized Femoral Defects. *Bone* 41: 247–255 (2007)
28. Bini E., Foo C. W. P., Huang J., **Karageorgiou V.**, Kitchel B., Kaplan D. L.: RGD-functionalized bioengineered spider dragline silk biomaterial. *Biomacromolecules* 7: 3139-3145 (2006)
29. Kardestuncer T., McCarthy M.-B., **Karageorgiou V.**, Kaplan D. L., Gronowicz G.: RGD-tethered silk substrate stimulates the differentiation of human tendon cells. *Clinical Orthopaedics and Related Research* 448: 234-239 (2006)
30. **Karageorgiou V.**, Tomkins M., Fajardo R., Meinel L., Snyder B., Wade K., Chen J., Vunjak-Novakovic G., Kaplan D. L.: Porous silk fibroin 3-D scaffolds for delivery of bone morphogenetic protein-2 *in vitro* and *in vivo*. *Journal of Biomedical Materials Research A* 78: 324-334 (2006)

31. Jin H.-J., Park J., **Karageorgiou V.**, Kim U.-J., Valluzzi R., Kaplan D. L.: Water-stable silk films with reduced beta-sheet content. *Advanced Functional Materials* 15: 1241-1247 (2005)
32. **Karageorgiou V.** and Kaplan D. L.: Porosity of 3-D biomaterial scaffolds and osteogenesis. *Biomaterials* 26: 5474-5491 (2005)
33. Meinel L., Hofmann S., **Karageorgiou V.**, Kirker-Head C., McCool J., Gronwicz G., Zichner L., Langer R., Vunjak-Novakovic G., Kaplan D. L.: The inflammatory responses to silk films in vitro and in vivo. *Biomaterials* 26: 147-155 (2005)
34. Meinel L., Hofmann S., **Karageorgiou V.**, Zichner L., Langer R., Kaplan D. L., Vunjak-Novakovic G.: Engineering cartilage-like tissue using human mesenchymal stem cells and silk protein scaffolds. *Biotechnology and Bioengineering* 88: 379-391 (2004)
35. **Karageorgiou V.**, Meinel L., Hofmann S., Malhotra A., Volloch V., Kaplan D. L.: Bone morphogenetic protein-2 decorated fibroin films induce osteogenic differentiation of human bone marrow stromal cells. *Journal of Biomedical Materials Research A* 71: 528-537 (2004)
36. Meinel L., **Karageorgiou V.**, Hofmann S., Fajardo R., Snyder B., Li C., Zichner L., Langer R., Vunjak-Novakovic G., Kaplan D. L.: Engineering bone-like tissue using human bone marrow stem cells in silk scaffolds. *Journal of Biomedical Materials Research A* 71: 25-34 (2004)
37. Jin H.-J., Chen J., **Karageorgiou V.**, Altman G. H., Kaplan D. L.: Human bone marrow stromal cell responses on electrospun silk fibroin mats. *Biomaterials* 25: 1039-1047 (2004)
38. Meinel L., **Karageorgiou V.**, Fajardo R., Snyder B., Shinde-Patil V., Zichner L., Kaplan D. L., Langer R., Vunjak-Novakovic G.: Bone tissue engineering using human mesenchymal stem cells; effects of scaffold material and medium flow. *Annals of Biomedical Engineering* 32: 112-122 (2003)
39. Chen J., Altman G. H., **Karageorgiou V.**, Horan R., Collette A., Volloch V., Colabro T., Kaplan D. L.: Human bone marrow stromal cell and ligament fibroblast responses on RGD-modified silk fibers. *Journal of Biomedical Materials Research A* 67: 559-570 (2003)
40. Panilaitis B., Altman G. H., Chen J., Jin H.-J., **Karageorgiou V.**, Kaplan D. L.: Macrophage responses to silk. *Biomaterials* 24: 3079-3085 (2003)

PUBLICATIONS IN HONORARY EDITIONS

1. Kiparissides C., Kammona O., **Karageorgiou V.**: Nanotechnology challenges in targeted delivery of biopharmaceutics. pp. 133-142 in *Honorary Edition for A.U.Th. Professor Emeritus Vassilis Papageorgiou* (2011)

CONFERENCES

1. Frangopoulos T., Petridis D., Marinopoulou A., Goulas A., Ketesidis A., Koulaki E., Lioli A., Raphaelides S., **Karageorgiou V.**: Accelerated life testing of starch biodegradable films with nanoclay using the elongation level as stressor. *14^o Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής*, Θεσσαλονίκη, 29-31 Μαΐου 2024
2. **Karageorgiou V.**, Noulis K., Frangopoulos T., Arampatzidou A., Tsekmes L., Marinopoulou A., Goulas A.: Sodium trimetaphosphate crosslinked starch films reinforced with montmorillonite. *14^o Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής*, Θεσσαλονίκη, 29-31 Μαΐου 2024
3. Frangopoulos T., Petridis D., Marinopoulou A., Goulas A., Ketesidis A., Ozuni G., Dimitriadou S., Koulaki E., Lioli A., Raphaelides S., **Karageorgiou V.**: Assessing the fatigue stress behavior of starch biodegradable films with montmorillonite using accelerated survival test methods. *7th International ISEKI-FOOD Conference*, Paris, France, 5-7 July 2023
4. Marinopoulou A., Raphaelides S., **Karageorgiou V.**, Goulas A.: Characterization of spray dried starch molecular inclusion complexes of antioxidant and antimicrobial compounds. *7th International ISEKI-Food Conference*, Paris, France, 5-7 July 2023
5. Marinopoulou A., Sotiriadou P., Karamarkou M., Frangopoulos T., **Karageorgiou V.**, Raphaelides S., Goulas A.: Biodegradable spray dried starch-based films reinforced with silicon dioxide. *7th International ISEKI-Food Conference*, Paris, France, 5-7 July 2023
6. Frangopoulos T., Petridis D., Marinopoulou A., Goulas A., Kannidou E., Ketesidis A., Ozouni G., Dimitriadou S., Arampatzidou A., Tsekmes L., Koulaki E., Lioli A., Georgiou D., Kalogianni E., Raphaelides S., **Karageorgiou V.**: Optimization of starch based biodegradable films manufactured with montmorillonite, focusing on mechanical, barrier and physicochemical properties. *2nd Global Summit on Food Science and Technology*, Rome, Italy, 23-25 March 2023
7. Marinopoulou A., Petrou A., Pimenidis A., Frangopoulos T., **Karageorgiou V.**, Goulas A.: Effect of silicon dioxide and beeswax on the mechanical and water barrier properties of thermoplastic maize

starch films. *ISEKI E-conferences "Current food innovation trends; the texture and consumer perception perspective"*, 23-25 November 2022

8. Marinopoulou A., **Karageorgiou V.**, Raphaelides S., Goulas A.: Effect of spray drying on the physical and structural properties of starch inclusion complexes with bioactive compounds. *ISEKI E-conferences "Current food innovation trends; the texture and consumer perception perspective"*, 23-25 November 2022
9. Marinopoulou A., Goulas A., A. Raphaelides S., Aslampaloglou A., Tzikas A., **Karageorgiou V.**: Production of spray dried starch molecular inclusion complexes via in stream feeding of the guest molecules. *9th Virtual Panhellenic Conference of Greek Lipid Forum "Current Trends in the Field of Lipids"*, 22 October 2021
10. Marinopoulou A., Zoumaki M., Goulas A., Raphaelides S., **Karageorgiou V.**: Effect of glycerol content and pH value on the properties of spray dried starch- based films containing bioactive compounds. *9th Virtual Panhellenic Conference of Greek Lipid Forum "Current Trends in the Field of Lipids"*, 22 October 2021
11. Marinopoulou A., Christofilos D., Arvanitidis J., **Karageorgiou V.**, Raphaelides S. N.: Production and Structural Characterization of Spray Dried Starch Molecular Inclusion Complexes. *34th annual Panhellenic Conference on Solid State Physics and Materials Science*, Patras, Greece, 11-14 September 2019
12. Δήμας Κ., Βασιλάκογλου Ι., **Καραγεωργίου Β.**, Δόρδας Χ., Λιθουργίδης Α., Ελευθεροχωρινός Η.: Ποιοτικές και ποσοτικές διαφορές κρόκου Κοζάνης και κρόκου Κεντρικής Μακεδονίας. *17ο Συνέδριο ΕΕΕΓΒΦ, «Η συμβολή της Γενετικής Βελτίωσης των Φυτών στην αειφόρο Γεωργία και τη σύγχρονη Βιοοικονομία»*, Πάτρα, 17-19 Οκτωβρίου, 2018
13. Marinopoulou A., **Karageorgiou V.**, E. Papastergiadis, Raphaelides S. N.: Production of spray dried starch molecular inclusion complexes on an industrial scale. *6th International Congress on Food Technology*, Athens, Greece, 18-19 March 2017
14. Marinopoulou A., A. Dagklis, K. Iordanidis, **Karageorgiou V.**, E. Papastergiadis, Raphaelides S. N.: The effect of spray drying on the physicochemical properties of amylose-fatty acid inclusion complexes. *10th Hellenic Polymer Society Conference with international participation (10th HPSC)*, Patras, Greece, 4-6 December 2014

15. Kiparissides C., Kammona O., **Karageorgiou V.**: Nanotechnology challenges in targeted delivery of biopharmaceutics. *8th Southeast European Congress on Xenobiotic Metabolism and Toxicity (XeMeT 2010)*, Thessaloniki, Greece, 1-5 October 2010
16. Kotti K., **Karageorgiou V.**, Kammona O., Kiparissides C.: Development of PLGA nanocarriers for nasal vaccination. *10th European Biological Inorganic Chemistry Conference (EUROBIC10)*, Thessaloniki, Greece, 22-26 June 2010
17. Kotti K., **Karageorgiou V.**, Patronidou C., Kammona O., Kiparissides C.: Synthesis of PLGA nanocarriers for lymphatic nasal delivery of proteins. *AIChE 2009 Annual Meeting*, Nashville, USA, 8-13 November 2009
18. Kotti K., **Karageorgiou V.**, Patronidou C., Kammona O., Kiparissides C.: Synthesis of PLGA nanoparticles for lymphatic nasal delivery of proteins. *6th International Conference on Nanosciences and Nanotechnologies (NN09)*, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece, 13-15 July 2009
19. Cerda B., Sevrin Ch., Patronidou C., Kotti K., Kammona O., **Karageorgiou V.**, Kiparissides C., Grandfils Ch.: Activation of the complement by PLGA nanoparticles. *EuroNanoMedicine 2009*, Bled, Slovenia, 28-30 September 2009
20. Kotti K., **Karageorgiou V.**, Patronidou C., Kammona O., Kiparissides C.: Synthesis of PLGA nanocarriers for nasal vaccination. *EuroNanoMedicine 2009*, Bled, Slovenia, 28-30 September 2009
21. Kotti K., **Karageorgiou V.**, Patronidou C., Kammona O., Kiparissides C.: PLGA nanocarriers for nasal vaccination. *36th Annual Meeting of the Controlled Release Society*, Copenhagen, Denmark, 18-22 July 2009
22. Sevrin Ch., Cerda B., Patronidou C., Kotti K., Kammona O., **Karageorgiou V.**, Kiparissides C., Grandfils Ch.: Activation of the complement by PLGA nanoparticles: An in vitro study. *Biomedica 2009*, Liège, Belgium, 1-2 April 2009
23. Patronidou C., Karakosta P., Kotti K., Kammona O., **Karageorgiou V.**, Kiparissides C.: Functionalized PLGA Nanoparticles for Protein Delivery. *1st International Conference from Nanoparticles & Nanomaterials to Nanodevices & Nanosystems (1st IC4N 2008)*, Chalkidiki, Greece, 16-18 June 2008
24. Patronidou C., Karakosta P., Kotti K., Kammona O., **Karageorgiou V.**, Kiparissides C.: PLGA Nanocarriers for Systemic and Lymphatic Oral Delivery of Proteins and Peptides. *10th European*

Symposium on Controlled Drug Delivery (ESCDD 2008), Noordwijk aan Zee, The Netherlands, 2-4 April 2008

25. Patronidou C., Karakosta P., Kotti K., Kammona O., **Karageorgiou V.**, Kiparissides C.: Synthesis of functionalized nanocarriers for oral and pulmonary delivery of protein and peptide drugs. *International Conference on Nanomedicine*, Porto Carras Grand Resort, Chalkidiki, Greece, 9-11 September 2007
26. Patronidou C., Karakosta P., Kotti K., Kammona O., **Karageorgiou V.**, Kiparissides C.: Functionalized Nanocarriers for Oral and Pulmonary Delivery of Proteins and Peptides. *4th International Workshop on Nanosciences and Nanotechnologies (NN07)*, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece, 16-18 July 2007
27. Meinel L., Hofmann S., **Karageorgiou V.**, Merkle H. P., Kaplan D.: Silk and collagen films are bio-equivalent an in vitro and in vivo evaluation of inflammatory responses. *International Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology*, Nuremberg, Germany, 15-18 March 2004
28. Wade K., Meinel L., **Karageorgiou V.**, Tu Q., Tang J., Kaplan D.L., Chen J., Hofmann S.: Calvarial Wound Healing Using Silk Scaffolds with Marrow Stem Cells. *The IADR/AADR/CADR 82nd General Session*, Honolulu, USA, 10-13 March 2004
29. Meinel L., Hofmann S., **Karageorgiou V.**, Merkle H. P., Kaplan D.: Silk and collagen films are bio-equivalent an in vitro and in vivo evaluation of inflammatory responses. *Pharma-Day 2004*, Center of Pharmaceutical Sciences Basel-Zuerich, Zuerich, Switzerland, 5 February 2004
30. **Karageorgiou V.** and Kaplan D. L.: Surface Decorated Fibroin Films to Induce Differentiation towards an Osteoblastic Lineage in Bone Marrow Stromal Cells. *3rd International Silk Conference*, Montreal, Canada, 17-19 June 2003
31. Meinel L., Hofmann S., **Karageorgiou V.**, Merkle H. P., Kaplan D.: Silk and collagen films are bio-equivalent an in vitro and in vivo evaluation of inflammatory responses. *3rd International Silk Conference*, Montreal, Canada, 17-19 June 2003
32. Jin H.-J., Chen J., **Karageorgiou V.**, Altman G. H., Kaplan D. L.: Human Bone Marrow Stem Cell Responses on Electrospun *Bombyx Mori* Silk Fibroin. *SYMPOSIUM C Bio-Inspired Nanoscale Hybrid Systems*, Boston, USA, 2-4 December 2002