

# C U R R I C U L U M V I T A E

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## C U R R E N T P O S I T I O N

AGRICULTURAL UNIVERSITY OF ATHENS, Department of Food Science and Human Nutrition

Laboratory of Food chemistry and Analysis

Position: ASSOCIATE PROFESSOR IN PHYSICAL CHEMISTRY OF FOOD (2018-...)

## S C I E N T I F I C I N T E R E S T S

Physicochemical and functional properties of food; Study of biopolymer solutions and gels using rheology, D.S.C. etc.; Development of new functional products e.g. with reduced sucrose; Retention/encapsulation of aroma compounds by biopolymer systems; Biopolymer food applications (e.g. drying of aromatic plants, antioxidant activity of food etc.); Gels; Emulsions; Edible films and coatings; Encapsulation

## S T U D I E S

CRANFIELD UNIVERSITY, Department of Agricultural and Biosystems Engineering

Ph.D. in Physical Chemistry of Food

Thesis title: «Effect of sugars on gelation and co-gelation of high methoxy pectins with starch polysaccharides»

-Sponsored by the «Behaviour of Biopolymer Mixtures in Structuring Food Products» program with the participation of both academic and industrial partners

-Supervisor: Pr. E. R. Morris

UNIVERSITY OF ATHENS. Department of Chemistry

Degree, Certification on oenology, Studentships for two academic years

## PROFESSIONAL EXPERIENCE

### (a) Educational experience

Ac. Years 2006- *AGRICULTURAL UNIVERSITY OF ATHENS*

#### Undergraduate level

Physical Chemistry (2016-...)

Food Physical Chemistry (2018-....)

Food Physical Chemistry I (2006-2015)

Food Physical Chemistry II (2006-2017)

Food Chemistry I (2012-2017)

Food Chemistry II (2012-2014)

#### Postgraduate level

Food Biopolymers (2014-..)

Ac. Years 2000-6- *UNIVERSITY OF THESSALY*

Department of Veterinary Science

Scientific staff for «Chemistry» and/ or «Biochemistry»

T.E.I. OF LAMIA

Departments of Nursing and Physical therapy

Scientific staff for «Biochemistry», «Nutrition and nutritional value of food», «Dietetics», «Biology» and «Genetics».

### (a) Research experience

UNIVERSITY COLLEGE CORK, Department of Food Science, Food Technology and Nutrition

Effect of divalent and monovalent cations on the double structure of  $\kappa$ -carrageenan (7-8/08), behaviour of pectins in the presence of various monosaccharides (7/04-8/04), properties of biopectin (1/03-6/04).

CRANFIELD UNIVERSITY, Department of Agricultural and Biosystems Engineering

Gelation of pectin and starch in the presence of sugars (10/97-12/98), structural properties and phase behaviour of high and low acyl gellan mixtures (10/96-10/97, Erasmus), glass transition of biopolymers (10/94-10/97), light spreads products (10/94-10/95).

## PARTICIPATION IN RESEARCH PROGRAMS

- «Behaviour of Biopolymer Mixtures in Structuring Food Products», Researcher (U.K., 1994-1998)
- «Determination and study of use of soluble fibers of high nutritional value as substitute sweeteners – Applications in confectionary products », SD: I. Mandala, ELKE AUA, Researcher (2009-2011)
- «High energy jet milling for the production of fine flour powders & bakery products with enhanced functional & nutritional characteristics. LEA-09SYN-81-1031», SD: C. Biliaderis, Cooperation 2009, Researcher (2011-2014)
- «Gluten-free carob containing bakery products with high protein and dietary fibre content», SD: S. Yannopoulos, DESMI 2009-2010 Cyprus, Researcher (2011-2013)
- «Macro and mini/nano-emulsions prepared with different emulsifiers and stabilizers with the addition of ingredients from plants and fruits for the production of new flavors», SD: S. Yanniotis, Irakleitos, Researcher (2011-2014)
- «Novel formulations and nano-structures for enhancing the bioavailability of a bioactive compound. The case of emulsion production, NONASTRU 11SYN-2718», SD: I. Mandala, Cooperation 2011, Researcher (2013-2015)
- «Chemical building blocks from versatile MSW biorefinery (PERCAL)». SD: A. Koutinas, H2020-EU.3.2.6., Researcher (2017-2020)
- «Study of the properties of sheep's buttermilk as a first step for its utilization», SD: G. Moatsou, Young Researchers (2nd call), Deputy Academic Advisor (2020-2021)
- «Production of highly sustainable liquid biofuels and value-added products from municipal solid waste from catering companies», SD: A. Koutinas, Research- innovate- create (2<sup>nd</sup> call), Researcher (2021-2024)
- « Utilization of agricultural sugar beet crop residues and sugar production process by-products for the production of biogenic and biocomposite biodegradable packaging materials », SD: A. Koutinas, Research- innovate- create (2<sup>nd</sup> call), Researcher (2021-2024)

## FURTHER ACTIVITIES

- Member of the Scientific Committee of National and International Scientific Conferences
- Participation in various national and international scientific conferences
- Supervisor of graduate, post graduate and doctoral thesis
- Reviewer in scientific journals (Author of several teaching notes)

## RESEARCH WORK

### (a) Publications in Refereed Journals (\*: corresponding author)

1. **Evageliou, V.**, Aleviopoulos, S. and Kasapis, S. (1997). Application of stress-controlled analysis to the development of low fat spreads. *Journal of Texture Studies*, 28, pp. 319-335.
2. **Evageliou, V.**, Kasapis, S. and Hember, M.W.N. (1998). Vitrification of  $\kappa$ -carrageenan in the presence of high levels of glucose syrup. *Polymer*, 39, No.17, pp. 3909-3917.
3. Kasapis, S., Giannouli, P., Hember, M.W.N., **Evageliou, V.**, Poulard, C., Tort-Bourgeois, B. and Sworn, G. (1999). Structural aspects and phase behaviour in deacylated and high acyl gellan systems. *Carbohydrate Polymers*, 38, pp. 145-154.
4. **Evageliou, V.**, Richardson, R.K., and Morris, E.R. (2000). Effect of oxidised starch on high methoxy pectin-sucrose gels formed by rapid quenching. *Carbohydrate Polymers*, 42, pp. 219-232.
5. **Evageliou, V.**, Richardson, R.K., and Morris, E.R. (2000). Co-gelation of high methoxy pectin with oxidised starch or potato maltodextrin. *Carbohydrate Polymers*, 42, pp. 233-243.
6. **Evageliou, V.**, Richardson, R.K., and Morris, E.R. (2000). Effect of pH, sugar type and thermal annealing on high methoxy pectin gels. *Carbohydrate Polymers*, 42, pp. 245-259.
7. **Evageliou, V.**, Richardson, R.K., and Morris, E.R. (2000). Effect of sucrose, glucose and fructose on gelation of oxidised starch. *Carbohydrate Polymers*, 42, pp. 261-272.
8. **Evageliou, V.**, Ptitchkina, N.M. and Morris, E.R. (2005). Solution viscosity and structural modifications of pumpkin Biopectin. *Food Hydrocolloids*, 19, pp. 1032-1036.
9. **Evageliou\*, V.**, Karantoni, M., Mandala, I. and Komaitis, M. (2010). Compression of gellan gels. Part I: effect of salts. *International Journal of Food Science and Technology*, 45(5), 1076-1080.
10. **Evageliou\*, V.**, Mazioti, M., Mandala, I. and Komaitis, M. (2010). Compression of gellan gels. Part II: effect of sugars, *Food Hydrocolloids*, 24(4), 392-397.
11. Gardeli, C., **Evageliou\*, V.**, Poulos, C., Yanniotis, S. and Komaitis, M. (2010). Drying of fennel plants: oven, freeze-drying, effect of freeze drying time and use of biopolymers. *Drying Technology*, 28(4), 542-549.
12. Zafeiropoulou, T., **Evageliou\*, V.**, Gardeli, C., Yanniotis, S. and Komaitis, M. (2010). Retention of *trans*-anethole by gelatine and starch matrices. *Food Chemistry*, 123, 364-368.
13. **Evageliou\*, V.**, Tseliou, G., Mandala, I. and Komaitis, M. (2010). Effect of inulin on texture and clarity of gellan gels. *Journal of Food Engineering*, 101, 381-385.
14. **Evageliou\*, V.**, Zikas, A., Gerolemou, A., Basios, A., and Komaitis, M. (2011). Effect of salts and sugars on the clarity of gellan gels. *International Journal of Food Science and Technology*, 46, 1001-1006.
15. **Evageliou\*, V.**, Galanaki, P., Gardeli, C. and Komaitis, M. (2011). Retention of ethyl butyrate by gellan gels in the presence of potassium ions. *Food Chemistry*, 126 (3), 866-869.

16. **Evageliou\*, V.**, Mavragani, I. and Komaitis, M. (2012). The effect of salts on the retention of ethyl butyrate by gellan gels. *Food Hydrocolloids*, 26, 144-148.
17. Zafeiropoulou, T., **Evageliou\*, V.**, Gardeli, C., Yanniotis, S. and Komaitis, M. (2012). Retention of selected aroma compounds by gelatine matrices. *Food Hydrocolloids*, 28, 105-109.
18. Protonotariou, S., **Evageliou, V.**, Yanniotis, S. and Mandala, I. (2013). The influence of different stabilizers and salt addition on the stability of model emulsions containing olive or sesame oil. *Journal of Food Engineering*, 117 (1), 124-132
19. Protonotariou, S.V, Karali, E., **Evageliou, V.**, Yanniotis, S. and Mandala, I. (2013). Rheological and sensory attributes of cream caramel desserts containing fructooligosaccharides as substitute sweeteners. *International Journal of Food Science and Technology*, 48 (3), 663-669
20. Soultani, G., **Evageliou\*, V.**, Koutelidakis, A., Kapsokefalou, M. and Komaitis M. (2014). The effect of pectin and other constituents on the antioxidant activity of tea. *Food Hydrocolloids*, 35, 727-732.
21. **Evageliou\*, V.**, and Patsiakou, A. (2014). The effect of sugars on the retention of ethyl butyrate by gellan gels. *Food Chemistry*, 157, 252-256
22. Protonotariou, S., Drakos, A., **Evageliou, V.**, Ritzoulis, C. and Mandala, I. (2014). Sieving fractionation and jet mill micronization affect the functional properties of wheat flour. *Journal of Food Engineering*, 134, 24-29.
23. **Evageliou, V\***, Gerolymatou, A., Sotirakoglou, K., Gardeli, Chr. and Yanniotis, S. (2015) Retention of trans- anethole by single and double layered films based on gelatine. *Food Hydrocolloids*, 47, 94-98.
24. **Evageliou\*, V.**, Papastamopoulou, K., Frantzeskaki, D., and Christodoulidou, C.C. (2015) Retention of esters by gellan and pectin solutions or their mixtures. *Food Hydrocolloids*, 51, 54-59.
25. Panagopoulou, E., Tsouko, E., Kopsahelis, N., Koutinas, A., Mandala, I., and **Evageliou, V.\*** (2015). Olive oil emulsions formed by catastrophic phase inversion using bacterial cellulose and whey protein isolate. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 486, 203-210.
26. Drakos, A., Kyriakakis, G., **Evageliou\*, V.**, Protonotariou, S., Mandala, I., and Ritzoulis, C. (2017). Influence of jet milling and particle size on the composition, physicochemical and mechanical properties of barley and rye flours. *Food Chemistry*, 215, 326-332.
27. **Evageliou\*, V.**, & Saliari, D. (2017) Limonene encapsulation in freeze dried gellan systems. *Food Chemistry*, 223, 72-75.
28. Panagopoulou, E., **Evageliou, V.\***, Kopsahelis, N., Ladakis, D., Koutinas, A., and Mandala, I. (2017). Stability of double emulsions with PGPR, Bacterial Cellulose and Whey Protein Isolate. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 522, 445-452.
29. Drakos, A., Malindretou, K., Mandala, I., & **Evageliou\*, V.** (2017) Protein isolation from jet milled rye flours differing in particle size. *Food Bioproducts Processing*, 104, 13-18.

30. Koutelidakis, A.E., Argyri, K., Sevastou, Z., Lambrinaki, Δ., Panagopoulou, E., Paximada, E., Sali, A., Papalazarou, V., Mallouchos, A., **Evageliou**, V., Kostourou, V., Mantala, I., and Kapsokefalou, M. (2017) Bioactivity of EGCG nanoemulsions evaluated in mice model. *Journal of Medicinal Food*, 20 (9), pp. 923-931.
31. Drakos, A., Pelava, E., **Evageliou\***, V. (2018) Properties of flour films as affected by the flour's source and particle size. *Food Research International*, 107, pp. 551-558.
32. **Evageliou**, V.I., Ryan, P.M., Morris, E.R. (2019) Effect of monovalent cations on calcium-induced assemblies of kappa carrageenan. *Food Hydrocolloids*, 86, pp. 141-145.
33. **Evageliou\***, V., Panagopoulou, E., Mandala, I. (2019) Encapsulation of EGCG and esterified EGCG derivatives in double emulsions containing Whey Protein Isolate, Bacterial Cellulose and salt. *Food Chemistry*, 281, pp. 171-177.
34. Drakos, A., Andrioti-Petropoulou, L., **Evageliou\***, V., Mandala, I. (2019) Physical and textural properties of biscuits containing jet milled rye and barley flour. *Journal of Food Science and Technology*, 56 (1), pp. 367-375.
35. Kapetanakou, A.E., Nestora, S., **Evageliou**, V., Skandamis, P.N. (2019) Sodium alginate–cinnamon essential oil coated apples and pears: Variability of Aspergillus carbonarius growth and ochratoxin A production. *Food Research International*, 119, pp. 876-885.
36. **Evageliou\***, V. (2020) Shear and extensional rheology of selected polysaccharides. *International Journal of Food Science and Technology*, 55, pp. 1853-1861.
37. Drakos, A., Tsakiroglou, E., **Evageliou\***, V., Mandala, I. (2021). The effect of inulin on the physical and textural properties of biscuits containing jet milled barley flour. *Polysaccharides*, 2 (1), pp. 39-46.
38. Paximada, P., Batchelor, M., Lillevang, S., **Evageliou**, V., Howarth, M.,& Dubey, B.N. (2021). Impact of lipophilic surfactant on the stabilization of water droplets in sunflower oil. *Journal of Food Processing and Preservation*, 45(9), e15757.
39. Sakkas, L., **Evageliou**, V., Igoumenidis, P.E., & Moatsou, G. (2022). Properties of Sweet Buttermilk Released from the Churning of Cream Separated from Sheep or Cow Milk or Sheep Cheese Whey: Effect of Heat Treatment and Storage of Cream. *Foods*, 11(3), 465
40. Zioga, M., Tsouko, E., Maina, S., Koutinas, A. & **Evageliou\***, V. (2022). Physicochemical and rheological characteristics of pectin extracted from renewable orange peel employing conventional and green technologies. *Food Hydrocolloids*, 107887.
41. Zioga, M., Chroni, A., & **Evageliou\***, V. (2022). Utilization of pectins extracted from orange peels by non – conventional methods in the formation of edible films in the presence of herbal infusions. *Polysaccharides*, 3, 574 – 588.

42. Zioga, M., Papantonopoulou, G. & **Evageliou\***, V. (2023). High internal phase emulsions and edible films with high methoxyl pectin and pea protein isolate or sodium Caseinate, Food Hydrocolloids, 108605. <https://doi.org/10.1016/j.foodhyd.2023.108605>
43. Zioga, M. & **Evageliou\***, V. (2023). Formation and physicochemical properties of insoluble complexes resulted from high methoxyl pectin – protein interactions. Food Hydrocolloids, 108806. <https://doi.org/10.1016/j.foodhyd.2023.108806>

**(b) ADDITIONAL PUBLISHED WORK**

- 2 book chapters
- 4 publications in Greek magazines
- Educational notes for AUA students.
- 9 chapters in international conferences' proceedings
- 30 presentations in international conferences
- 9 presentations in national conferences