



## PERSONAL INFORMATION:

**Full Name:** Aman Mohammad Ziaifar

**Nationality:** Iranian

**Academic Level:** Associate Professor

**Cell:** +98-911-269-2546

**E-mail:** [ziaifar@gau.ac.ir](mailto:ziaifar@gau.ac.ir), [ziaifar@gmail.com](mailto:ziaifar@gmail.com)

## EDUCATION:

- ✦ Post Doc 2<sup>nd</sup>: AgroParisTech & Cargill (Modeling of oil oxidation), Mars 2009-Dec. 2009
- ✦ Post Doc 1<sup>st</sup>: AgroParisTech (Quality of French fries during frying), July 2008-Dec. 2008
- ✦ Ph.D.: AgroParisTech (Heat and mass transfer during frying), 2005-2008
- ✦ M.Sc.: Tehran University (Oil absorption during frying), 2000-2002
- ✦ B.Sc.: University of Sabzevar (Design of tomato paste plant), 1996-2000

## RESEARCH INTEREST:

- ✦ Heat and mass transfer
- ✦ Thermal food processing
- ✦ Frying
- ✦ Ohmic heating
- ✦ Pulsed electric field

## PUBLICATION:

### ISI Journals:

1. S Aghajanzadeh, G Fayaz, Y Soleimanian, A M Ziaifar, S L Turgeon, S Khalloufi (2023), Hornification: Lessons learned from the wood industry for attenuating this phenomenon in plant-based dietary fibers from food wastes, *Comprehensive Reviews in Food Science and Food Safety* 22 (1), 4-45.

2. F Heidari, SM Jafari, AM Ziaifar, N Malekjani (2022), Stability and release mechanisms of double emulsions loaded with bioactive compounds: a critical review, *Advances in Colloid and Interface Science* 299, 102567.
3. F Heidari, SM Jafari, AM Ziaifar, N Anton (2022), Preparation of Pickering Emulsions Stabilized by Modified Silica Nanoparticles via the Taguchi Approach, *Pharmaceutics* 14 (8), 1561.
4. S Aghajanzadeh, AM Ziaifar, R Verkerk (2021), Effect of thermal and non-thermal treatments on the color of citrus juice: A review, *Food Reviews International*, 1-23.
5. S Aghajanzadeh, M Ganjeh, SM Jafari, M Kashaninejad, AM Ziaifar (2020), Prediction of the changes in physicochemical properties of key lime juice during IR thermal processing by artificial neural networks, *Journal of Food and Bioprocess Engineering* 3 (2), 95-100.
6. Bagheri, M Kashaninejad, AM Ziaifar, M Aalami (2019), Textural, color and sensory attributes of peanut kernels as affected by infrared roasting method, *Information Processing in Agriculture* 6 (2), 255-264.
7. Z Mohammadi, M Kashaninejad, AM Ziaifar, M Ghorbani (2019), Peeling of kiwifruit using infrared heating technology: A feasibility and optimization study, *LWT* 99, 128-137.
8. A Ranjbar Nedanami, AM Ziaifar, M Parvini, M Kashaninejad, Y Maghsoudlou (2018), Numerical calculation of sterilization heat penetration parameters based on initial temperature and headspace in canned nonNewtonian fluid, *Journal of Food Processing and Preservation* 42 (10).
9. D Rahimi, M Kashaninejad, AM Ziaifar, AS Mahoonak (2018), Effect of infrared final cooking on some physico-chemical and engineering properties of partially fried chicken nugget *Innovative Food Science & Emerging Technologies* 47, 1-8.
10. M Touffet, A Patsioura, AM Ziaifar, L Eveleigh, O Vitrac (2018), Online reconstruction of oil oxidation kinetics and reaction schemes during deep-frying by deconvolution of ATR-FTIR spectra, *Journal of Food Engineering* 224, 1-16.
11. H Bakhshabadi, HO Mirzaei, A Ghodsvali, SM Jafari, AM Ziaifar (2018), The influence of pulsed electric fields and microwave pretreatments on some selected physicochemical properties of oil extracted from black cumin seed, *Food science & nutrition* 6 (1), 111-118.
12. S Aghajanzadeh, AM Ziaifar (2018), A review of pectin methylesterase inactivation in citrus juice during pasteurization, *Trends in Food Science & Technology* 71, 1-12.
13. S Aghajanzadeh, M Kashaninejad, AM Ziaifar (2017), Cloud stability of sour orange juice as affected by pectin methylesterase during come up time: Approached through fractal dimension, *International Journal of Food Properties* 20 (sup3), S2508-S2519.
14. S Aghajanzadeh, AM Ziaifar, M Kashaninejad (2017), Influence of thermal treatment, homogenization and xanthan gum on physicochemical properties of watermelon juice: A response surface approach, *LWT-Food Science and Technology* 85, 66-74.

15. A Salimi, Y Maghsoudou, SM Jafari, A Sadeghi Mahounak, M Kashaninejad, AM Ziaifar (2017), Stabilizing O/W Emulsions by Soy Protein Concentrate+ Maltodextrin and Optimizing the Process by Using Response Surface Methodology, *Food Sci and Tech* 5 (5), 97-105.
16. H Bakhshabadi, H Mirzaei, A Ghodsvai, SM Jafari, AM Ziaifar, V Farzaneh (2017), The effect of microwave pretreatment on some physico-chemical properties and bioactivity of Black cumin seeds' oil, *Industrial crops and products* 97, 1-9.
17. A Patsioura, AM Ziaifar, P Smith, A Menzel, O Vitrac (2017), Effects of oxygenation and process conditions on thermo-oxidation of oil during deep-frying *Food and Bioproducts Processing* 101, 84-99.
18. S Aghajanzadeh, M Kashaninejad, AM Ziaifar (2016), Effect of infrared heating on degradation kinetics of key lime juice physicochemical properties, *Innovative Food Science & Emerging Technologies* 38, 139-148.
19. H Bagheri, M Kashaninejad, AM Ziaifar, M Aalami (2016), Novel hybridized infrared-hot air method for roasting of peanut kernels, *Innovative Food Science & Emerging Technologies* 37, 106-114.
20. S Aghajanzadeh, AM Ziaifar, M Kashaninejad, Y Maghsoudlou, E Esmailzadeh (2016), Thermal inactivation kinetic of pectin methylesterase and cloud stability in sour orange juice, *Journal of Food Engineering* 185, 72-77.
21. M Sabaghi, Y Maghsoudlou, M Khomeiri, AM Ziaifar (2015), Active edible coating from chitosan incorporating green tea extract as an antioxidant and antifungal on fresh walnut kernel, *Postharvest biology and technology* 110, 224-228.
22. A Salimi, Y Maghsoudlou, SM Jafari, AS Mahoonak, M Kashaninejad, AM Ziaifar (2015), Preparation of lycopene emulsions by whey protein concentrate and maltodextrin and optimization by response surface methodology, *Journal of Dispersion Science and Technology* 36 (2), 274-283.
23. H Bakhshabadi, HO Mirzaei, A Ghodsvai, AM Ziaifar, E Aidani, A Daraei, M Maghsoudlou (2015), Optimization of physicochemical and aerodynamical characteristics of barley malt using Response Surface methodology, *Minerva Biotecnologica* 27 (1), 21-8.
24. M Hashemi Shahraki, AM Ziaifar, SM Kashaninejad, M Ghorbani (2014), Optimization of pre-fry microwave drying of French fries using response surface methodology and genetic algorithms, *Journal of food processing and preservation* 38 (1), 535-550.
25. N Meshginfar, AR Sadeghi Mahoonak, AM Ziaifar, M Kashaninejad, M Ghorbani (2014), Evaluation of antioxidant activity of bioactive peptides prepared from meat industry by-products, *Journal of Food Science & Technology* (2008-8787) 12 (46).
26. F Courtois, AM Ziaifar, I Trezzani, G Trystram (2012), Friture profonde: les interactions huile-produit, Oléagineux, Corps gras, *Lipides* 19 (2), 89-95 (In French).
27. AM Ziaifar, F Courtois, G Trystram (2010), Porosity development and its effect on oil uptake during frying process, *Journal of Food Process Engineering* 33 (2), 191-212.

28. AM Ziaiiifar, B Heyd, F Courtois (2009), Investigation of effective thermal conductivity kinetics of crust and core regions of potato during deep-fat frying using a modified Lees method, *Journal of Food Engineering* 95 (3), 373-378.
29. AM Ziaiiifar, N Achir, F Courtois, I Trezzani, G Trystram (2008), Review of mechanisms, conditions, and factors involved in the oil uptake phenomenon during the deep-fat frying process, *international journal of food science & technology* 43 (8), 1410-1423.

### **National Journals (Recent, 2018-2022):**

1. F Heidari, SM Jafari, AM Ziaiiifar, N Anton, (2022), Preparation of Pickering double emulsion stabilized by chitosan nanoparticles and evaluation of the effects of formulation parameters on the physical stability of formed emulsions, *Journal of food science and technology (Iran)* 19 (130), 85-95.
2. S Arabmofrad, SM Jafari, AM Ziaiiifar, H Shahiri Tabarestani, G Bahlakeh (2022), Investigation of physico-chemical properties of montmorillonite modified with cationic surfactant, *Journal of food science and technology (Iran)* 19 (124), 287-297.
3. M Naderi, AM Ziaiiifar, SM Jafari, Study of the Physicochemical and Rheological Behaviors of Hybrid Oleogels Based on Monoacylglycerol and Carboxymethyl Cellulose, *Iranian Journal of Nutrition Sciences & Food Technology* 17 (1), 65-76.
4. F Heidari, AM Ziaiiifar, SM Jafari, N Anton (2022), Investigating the effect of nanoparticle concentration and oil content on the physical stability of Pickering emulsion stabilized by chitosan nanoparticles, *Innovative Food Technologies* 9 (2), 167-179.
5. H Sabbaghi, AM Ziaiiifar, M Kashaninejad (2021), Estimation of shrinkage and rehydration in apple slices dried by infrared radiation using intermittent heating method, *Journal of Food Research* 31 (4), 35-49.
6. B Askari, M Kashaninejad, E Esmaeaelzade (2021), Study of Drying Behavior of Pumpkin by Convective Hot Air Drying–Cast Tape Drying, *Journal of food science and technology (Iran)* 18 (118), 297-311.
7. M Hosseini, H Mirzaei, AM Ziaiiifar, A Motamedzadegan (2021), The study of moisture kinetics and mass transfer parameters during hot air frying in potato chips, *Journal of food science and technology (Iran)* 18 (116), 357-369.
8. S Akhavan, M Aalami, AM Ziaiiifar, Y Maghsoudlou (2021), Effect of heat-moisture treatment of brown rice flour and natural additives on the properties of gluten-free frozen cake batter *Journal of Food Processing and Preservation* 13 (3), 115-131.
9. K Rahmani, H Mirzaei, AM Ziaiiifar, M Kashaninejad, SM Jafari, N Hamdami (2021), The influence of Ca<sup>++</sup> and NaCl and brining temperature on textural hardness and syneresis or swelling protein matrix in ultrafiltration feta cheese *Journal of Food Processing and Preservation* 13 (1), 139-154.

10. H Sabbaghi, AM Ziaifar, M Kashaninejad (2021), Simulation of temperature fuzzy controller during infrared dry blanching and dehydration of apple slices by intermittent heating method, *Iranian Food Science and Technology Research Journal*, 16, 6, 133-150.
11. S Aghajanzadeh, M Ganjeh, SM Jafari, M Kashaninejad, AM Ziaifar (2020), Prediction of the changes in physicochemical properties of key lime juice during IR thermal processing by artificial neural networks, *Journal of Food and Bioprocess Engineering* 3 (2), 95-100.
12. H Ghadiri, AM Ziaifar, M Ghorbani, S Aghajanzadeh (2020), Use of Ohmic heating system in peeling tomato and its effect on physicochemical properties of the product, *Journal of Food Research* 30 (2), 57-68.
13. S Aghajanzadeh Suraki, AM Ziaifar, M Kashaninejad, A Rezaei Asl (2020), The effect of pulsed electric field on ascorbic acid content in tomato juice, *Journal of Food Processing and Preservation* 12 (1), 49-66.
14. M Kashiri, M Nazemi, AM Ziaifar, M Aalami, H Mirzaie (2020), Application of ohmic heating on peeling of prickly pear fruit (*Opuntia stricta*): Effects of electric field strength and NaCl concentration on the performance of peeling, *Journal of Food Processing and Preservation* 12 (1), 129-144.
15. H Sabbaghi, AM Ziaifar, M Kashaninejad (2020), Textural profile analysis (TPA) of dried apple slices using infrared radiation with intermittent heating method, *Iranian Food Science and Technology Research Journal*, 16, 1, 57-72.
16. M Saberi, AM Ziaifar, M Kashaninejad, M Aalami, HO Mirzaei, K Ghorbani, S aghajanzadeh (2019), Prediction of the physicochemical properties of quince puree during thermal treatment using M5 decision tree, *Journal of Food and Bioprocess Engineering* 2 (2), 139-146.
17. H Bagheri, M Kashaninejad, AM Ziaifar, M Alami (2019), Modeling of Roasting Process of Peanut Kernels using Combined Infrared-Hot Air Method, *Journal of Food Technology and Nutrition* 16 (4), 59-70.
18. S Kanudan, AM Ziaifar, M Kashaninejad, Y Maghsoudlou, S Aghajanzadeh (2019), Inactivation of Pectin methylesterase in carrot-kiwi juice during thermal processing, *Journal of Food Processing and Preservation* 11 (1), 103-116.
19. B Moussavi, H Mirzaei, M Kashiri, AM Ziaifar (2019), The effect of olive leaf extract on physical and mechanical properties of zein corn edible film, *Journal of food science and technology (Iran)* 16 (86), 313-324.
20. H Sabbaghi, AM Ziaifar, M Kashaninejad (2019), Design of fuzzy system for sensory evaluation of dried apple slices using infrared radiation, *Iranian Journal of Biosystems Engineering* 50 (1), 77-89.
21. H Bagheri, M Kashainejad, M Aalami, AM Ziaifar (2019), Optimization of Hot Air Roasting of Peanut Kernels Using Response Surface Methodology *Journal of Food Technology and Nutrition* 16 (2), 33-44.

22. S Aghajanzadeh , AM Ziaifar, M Kashaninejad, A Rezaei (2019), The effect of infrared pre-heating and pulsed electric field on physicochemical properties of tomato juice. Iranian Food Science & Technology Research Journal 15 (2), 297-307.
23. S Kanudan, AM Ziaifar, M Kashaninejad, Y Maghsoudlou, S Aghajanzadeh (2019), Investigation of pectin methylesterase inactivation during thermal processing of carrot-kiwi juice, Journal of Food Processing and Preservation 11 (1), 103-116.
24. Z Mokhtari, AM Ziaifar, M Aalami, M Kashaninejad, S Aghajanzadeh (2019), Physicochemical and rheological properties of dough from acorn flour and inulin, Journal of Food Science and Technology 84 (15), 23-38.
25. Z Mokhtari, AM Ziaifar (2018), The effect of different methods of roasting on the physico-chemical properties of wild almond, Innovative Food Technologies 6 (1), 55-73.
26. H Sabbaghi, AM Ziaifar, M Kashaninejad (2018), Modeling of Mass Transfer in the Drying Process of Apple Slices Using Infrared Irradiation with Intermittent Heating Method, Research and Innovation in Food Science and Technology 7 (1), 75-88.
27. H Sabbaghi, A Ziaifar, M Kashaninejad (2018), Fractional conversion modeling of color changes in apple during simultaneous dry-blanching and dehydration, Iranian Food Science and Technology Research Journal 14 (2), 383-397.
28. N Taghavi, AM Ziaifar, HH Mirzaei, AS Mahoonak, M Ghorbani, H Sabbaghi (2018), Investigation on effect of coating on the oil uptake during deep fat frying process of traditional sweet Pishmeh, Iranian Food Science & Technology Research Journal 14 (4), 561-571.
29. H Bakhshabadi, H Mirzaei, A Ghodsvali, SM Jafari, AM Ziaifar (2018), Modeling of some selected chemical properties of black Cumin seeds' oil influenced by microwave pretreatment and screw rotational speed Iranian Food Science and Technology Research Journal, 14(1), 17- 26.
30. M Davoodi, M Kashaninejad, AM Ziaifar, M Ghorbani (2018), Optimization of thawing of ground chicken by infrared radiation-warm air method using response surface methodology, Iranian Food Science and Technology Research Journal, 14(4), 461-472.

### **International Congress:**

1. A M Ziaifar, F Courtois., and G Trystram, Avril 2008. Variation of porosity during frying and cooling of French fries and its relation with oil absorption. International Congress of Engineering and Food, ICEF10, Chili
2. A M Ziaifar, F Courtois., and G Trystram, Septembre 2008. Investigation of oil physical properties affecting oil absorption during frying process. 6th Euro Fed Lipid Congress, Greece
3. A M Ziaifar, B Heyd, Avril 2009. Process parameters affecting the quality of fried potato in crust and core regions, Conference of Food Engineering CoFE09, Columbus, OH, USA

4. A M Ziaiiifar, B Heyd, and F Courtois, August 2009. Investigation of thermal conductivity kinetics of crust / core regions of Fried potato using a modified Lees method. 8th World Congress of Chemical Engineering, Montréal, Quebec, Canada

### Book:

#### Chapters in English:

1. AM Ziaiiifar and A Ranjbar (2023), Thermal food process calculations, in Thermal Processing of Food Products by Steam and Hot Water, Woodhead Publishing, 27-66.
2. AM Ziaiiifar, A Ranjbar, S Aghajanzadeh (2021), Conductive heat transfer in food processing, In: Engineering Principles of Unit Operations in Food Processing, Woodhead Publishing, 281-313.
3. S Aghajanzadeh and AM Ziaiiifar (2021), Pasteurization of juices with non-thermal technologies, In: Sustainable food processing and engineering challenges, Academic Press 25-73.

#### Book in Persian:

1. A M Ziaiiifar and F Heidary (2023), Heat and Mass Transfer: A Biological Context (Ashim K. Datta, 2017), Translated in Gorgan University of Agricultural Sciences and Natural Resources.
2. A M Ziaiiifar and H Sabbaghi (2018), Engineering Principles in Frying Process, Gorgan University of Agricultural Sciences and Natural Resources.

### ACADEMIC TEACHING EXPERIENCES:

Year	University	Courses
2010-2023	Gorgan University of Agricultural Sciences and Natural Resources	<ul style="list-style-type: none"> <li>✚ Design of food processing devices (PhD)</li> <li>✚ Application of mathematic in food Engineering (PhD)</li> <li>✚ Modeling in food engineering (PhD)</li> <li>✚ Advanced transfer phenomena (PhD)</li> <li>✚ Food processing (MSc)</li> <li>✚ Transfer phenomena in foods (MSc)</li> <li>✚ Principles of food engineering</li> <li>✚ Heat and mass transfer</li> <li>✚ Principles of food plant design</li> </ul>

2005-2009 AgroParisTech (In French)  
2002-2004 Dameghan and Amol Azad  
Universities

- ✚ Computer in food engineering
- ✚ Canning technology
- ✚ Meat and fishery technology
- ✚ Edible oil technology
- ✚ Cold storage of foods
- ✚ Food chemistry
- ✚ Food microbiology
- ✚ Sterilization of Foods (Ingenieur)
- ✚ English for students of food engineering
- ✚ Dairy technology
- ✚ Food packaging

### ACADEMIC RESRACH EXPERIENCES:

Ph.D. Thesis Supervised: 10 Students

M.Sc. Dissertation Supervised: 25 students

### RESPONSABILITIES AND PROFESSIONAL MEMBERSHIP:

Head of Dept. Food Process Engineering, Gorgan University of Agricultural Sciences and Natural Resources (2012-2018)

Desing Food Pilot Plant, Gorgan University of Agricultural Sciences and Natural Resources (2018)

Member of PreScouter Expert (2022-)

### AWARDS:

Year	Honor	Award
2002	2 <sup>nd</sup> place in Ph.D. exam (Food Enginerring) by Ministry of Science of Iran (to be sent abroad)	Scholarship

### LANGUAGES:

English, French, Persian, Turkmen