



School of Nutrition Sciences and Food Technology  
Kermanshah University of Medical Sciences



---

First Name: Khadije

Surname: Abdolmaleki

Academic Rank: Assistant Professor

Address: Department of Food Science and Technology, School of Nutritional Sciences and  
Food Technology Kermanshah University of Medical Sciences, Kermanshah, Iran

Email: khadije.abdolmaleki@gmail.com

---

#### Personal Information

Place of birth: Kurdistan

Date of birth: 1983

Contact number: 37102009

---

#### Tertiary Education

- 2015-2019 Ph.D. • Shahid Beheshti University of Medical Sciences, Iran Food Science & Technology (Food Quality Control)  
thesis title: The feasibility of structured oil systems production: oleogels based on hydrocolloids and beeswax in low saturated fat margarine  
Supervisor: Dr. Kooshan Nayebzadeh
- 2012-2015 M.Sc. • Shahid Beheshti University of Medical Sciences, Iran Food Science & Technology (Food Quality Control)  
thesis title: The effect of pH, ionic strength and storage temperature on stability and physicochemical properties of oil-in-water emulsion in the presence of gum tragacanth  
Supervisor: Dr. Mohmmadamin Mohammdifar
- 2008-2012 B.Sc. • Shahid Beheshti University of Medical Sciences, Iran Food Science & Technology (Food Quality Control)

---

#### Academic Responsibilities

- 2020-2022 • Head of Laboratories of the Nutrition Sciences and Food Industry Faculty

- 
- 2024
  - Head of Intellectual Property Office
- 

### Key Areas of Research Expertise

---

Use of various hydrocolloids in food products  
Investigation of rheological properties and texture of food  
Lipid-based food products and emulsions  
Oleogels and its application in food  
Functional bakery products  
Food Preservation Methods  
Food products safety

---

### Skills

---

- Language
    - English /Farsi
  - Technical
    - Certificate of specialized courses GMP, HACCP, ISO22000 and audit from TUV/ Germany
    - Business model generation course certificate
    - Certificate of reduction of waste in the meat production and processing chain from FAO
    - knowledge of X-ray diffraction, (XRD)
    - knowledge of differential scanning calorimetry, (DSC)
    - knowledge of particle size analyzer
    - knowledge of microstructure evaluation methods, SEM
    - knowledge of food texture assessment methods /Texture Analyzer and Rheometer
  - Software
    - Minitab, SPSS, Design Expert software, EndNote, Mendeley, Crystal ball
- 

### Articles

---

Dousti, M., Bashiry, M., Zohrabi, P., Siahpoush, V., Ghaani, A., & Abdolmaleki, Kh. (2024). The effect of dielectric barrier discharge (DBD) cold plasma treatment on the reduction of aflatoxin B1 and the physicochemical properties of oat. *Applied Food Research*, 4(2), 100515.

Abdolmaleki, Kh., Rezaei, F., Mohammadi, R., Zare, L., & Shahmoradi, S. (2024). The application of film based on gelatin/hydroxymethyl cellulose and red beetroot betalain in smart food packaging. *Food Science and Technology International*, 10820132241266112.

Reza Abedi-Firoozjah, hossein azadinejad, Asad Hosseini, Arvin Afrah and khadije Abdolmaleki (2024). Potential of Fat Replacers to Develop Low/Or Reduced-Fat Mayonnaise and Salad Dressing Systems: An Updated Review. *Current Nutrition & Food Science*.

---

- 
- Bahraminejad, M., Rostami, O., Heydari, M., Moradian, M., & Abdolmaleki, K. (2024). Characterization of gluten-free cupcakes without sucrose based on defatted soybean flour and monk fruit. *Food Science & Nutrition*, 12(2), 1268-1278.
- Dousti, M., Ghaani, A., Abdulahi Fard, P., Shiri, A., & Abdolmaleki, K. (2024). Effective Methods of Reducing Cholesterol in Food: An Updated Review. *Food and Health*, 1(1), 29.
- Yekta, R., Abedi-Firoozjah, R., Azimi Salim, S., Khezerlou, A., & Abdolmaleki, K. (2023). Application of cellulose and cellulose derivatives in smart/intelligent bio-based food packaging. *Cellulose*, 30(16), 9925-9953.
- Roshandel, Z., Zibaei, R. & Abdolmaleki, K. (2023). Characteristics of reduced-fat mayonnaise prepared by oleaster as a fat replacer and natural antioxidant. *Food Science & Nutrition*.
- Abedi-Firoozjah, R., Chabook, N., Rostami, O., Heydari, M., Kolaahdouz-Nasiri, A., Javanmardi, F., Abdolmaleki, K. & Khaneghah, A. M. (2022). PVA/starch films: An updated review of their preparation, characterization, and diverse applications in the food industry. *Polymer Testing*, 107903.
- Abdolmaleki, K., Alizadeh, L., Nayebzadeh, K., Baranowska, H. M., Kowalczewski, P. Ł. & Mousavi Khaneghah, A. (2022). Potential application of hydrocolloid-based oleogel and beeswax oleogel as partial substitutes of solid fat in margarine. *Applied Sciences*, 12, 12136.
- Abdolmaleki, K., Javanmardi, F., Gavahian, M., Phimolsiripol, Y., Ruksiriwanich, W., Mir, S. A. & Mousavi Khaneghah, A. Emerging technologies in combination with probiotics for aflatoxins removal: an updated review. *International Journal of Food Science & Technology*, 2022, 57, 5712-5721.
- Jafarzadeh, S., Abdolmaleki, K., Javanmardi, F., Hadidi, M., & Mousavi Khaneghah, A. Recent advances in plant-based compounds for mitigation of mycotoxin contamination in food products: Current status, challenges and perspectives. *International Journal of Food Science & Technology*, 2022, 57(4), 2159-2170.
- Abdolmaleki K, Alizadeh L, Sheikhi, Z., & Nayebzadeh, K. Effects of Replacing Palm oil with Beeswax Oleogel on the Characteristics of Low-saturated Fatty Acid Margarine. *Iranian Journal of Nutrition Sciences & Food Technology*, 2022, 16(4), 53-66.
- Sheikhi, Z., Bazyari Shurabi, S., Farhoodi, M., Shojaee-Aliabadi, S., Aminifar, M., & Mashayekh, M. Study of Mechanical, Physical, Optical and Antioxidant Characteristics of  $\beta$ -Glucan Based Films Containing Extracts of Oak Trees. *Iranian Journal of Nutrition Sciences & Food Technology*, 2021, 16(3), 65-74.
-

- 
- Abdolmaleki, K., Khedri, S., Alizadeh, L., Javanmardi, F., Oliveira, C. A., & Khaneghah, A. M. The mycotoxins in edible oils: An overview of prevalence, concentration, toxicity, detection and decontamination techniques. *Trends in Food Science & Technology*, 2021, 115, 500-511.
- Sheikhi Z, Mirmoghtadaie L, Abdolmaleki K, Khani MR, Farhoodi M, Moradi E, et al. Characterization of physicochemical and antimicrobial properties of plasma-treated starch/chitosan composite film. *Packaging Technology and Science*. 2021;34(7):385-92.
- Sheikhi Z, Hosseini SM, Khani MR, Farhoodi M, Abdolmaleki K, Shokri B, et al. Treatment of starch films with a glow discharge plasma in air and O<sub>2</sub> at low pressure. *Food Science and Technology International*. 2021;27(3):276-85.
- Abdolmaleki K, Alizadeh L, Hosseini SM, Nayebzadeh K. Concentrated O/W emulsions formulated by binary and ternary mixtures of sodium caseinate, xanthan and guar gums: rheological properties, microstructure, and stability. *Food Science and Biotechnology*. 2020;29(12):1685-93.
- Alizadeh L, Abdolmaleki K, Nayebzadeh K. Effects of cooling rate and aging process on crystallographic structure, whipping, rheological, textural and thermal properties of frozen minarine. *Food & Health*. 2020;3(2):31-6.
- Sheikhi Z, Mirmoghtadaie L, Khani M, Farhoodi M, Beikzadeh S, Abdolmaleki K, et al. Physicochemical characterization of argon plasma-treated starch film. *Journal of Agricultural Science and Technology*. 2020;22(4):999-1008.
- Alizadeh L, Abdolmaleki K, Nayebzadeh K, Hosseini SM. Oleogel Fabrication Based on Sodium Caseinate, Hydroxypropyl Methylcellulose, and Beeswax: Effect of Concentration, Oleogelation Method, and Their Optimization. *Journal of the American Oil Chemists' Society*. 2020;97(5):485-96.
- Abdolmaleki K, Alizadeh L, Nayebzadeh K, Hosseini SM, Shahin R. Oleogel production based on binary and ternary mixtures of sodium caseinate, xanthan gum, and guar gum: Optimization of hydrocolloids concentration and drying method. *Journal of texture studies*. 2020;51(2):290-9.
- Alizadeh L, Abdolmaleki K, Nayebzadeh K, Shahin R. Effects of tocopherol, rosemary essential oil and *Ferulago angulata* extract on oxidative stability of mayonnaise during its shelf life: A comparative study. *Food chemistry*. 2019; 285:46-52.
- Abdolmaleki K, Mohammadifar MA, Sheikhi Z, Matinfar G, Nayebzadeh K. The Role of Oil Phase in the Stability and Physicochemical Properties of Oil-in-Water Emulsions in the Presence of Gum Tragacanth. *Journal of the American Oil Chemists' Society*. 2019;96(7):795-803.
- Alizadeh L, Abdolmaleki K, Nayebzadeh K, Bahmaei M. Characterization of sodium caseinate/Hydroxypropyl methylcellulose concentrated emulsions: Effect of mixing ratio, concentration and wax addition. *International journal of biological macromolecules*. 2019; 128:796-803.
- Abdolmaleki K, Alizadeh L, Nayebzadeh K. Temperature dependence of stability, steady and dynamic rheological properties of oil-in-water emulsions stabilized by gum tragacanth. *Journal of Food Measurement and Characterization*. 2019;13(3):1627-35.
-

- Shahi F, Hashemi A, Abdolmaleki K, Shahi Z, Amraei S, Goudarzi H, et al. Antibacterial effects of *Quercus Brantii* fruits and *Stachys lavandulifolia* methanol extracts on imipenemase-type metallo-beta lactamase-producing *Pseudomonas aeruginosa*. *Research Journal of Pharmacognosy*. 2017;4(3):59-66.
- Mollakhalili Meybodi N, Mohammadifar MA, Farhoodi M, Skytte JL, Abdolmaleki K. Physical stability of oil-in-water emulsions in the presence of gamma irradiated gum tragacanth. *Journal of Dispersion Science and Technology*. 2017;38(6):909-16.
- Sarlak Z, Mohammadi R, Abdolmaleki K, Mortazavian AM, Shadnoosh M. Effects of addition of different probiotic strains on the biochemical and microbiological properties of Aloe vera drink. *Koomesh*. 2016:117-27. Persian.
- Abdolmaleki K, Mohammadifar MA, Mohammadi R, Fadavi G, Meybodi NM. The effect of pH and salt on the stability and physicochemical properties of oil-in-water emulsions prepared with gum tragacanth. *Carbohydrate Polymers*. 2016; 140:342-8.
- Mollakhalili Mn, Mohammadifar Ma, Abdolmaleki K. Effect of irradiated Gum Tragacanth on the stability of oil in water emulsion. 2016. Persian.
- Mollakhalili Meybodi N, Mohammadifar M, Abdolmaleki K. Effect of dispersed phase volume fraction on physical stability of oil-in-water emulsion in the presence of gum tragacanth. *Journal of food quality and hazards control*. 2014;1(4):102-7.

---

#### Research Projects

• 2024	-	Formulation and production of oat cake without egg
• 2024	-	Production of oleogel based on sesame oil and its application as a fat replacer in gluten-free cake
• 2024	-	Detoxification effect of laccase enzyme and falling water cold plasma technology for patulin in apple juice
• 2023	-	Production and evaluation of bigel characteristics based on lecithin and sodium caseinate and chitosan for ferulic acid release/Kermanshah University of medical sciences/supervisor
• 2023	-	Baigel based on monoglyceride and hydroxypropylmethyl cellulose preparation, characterization and application in the release of ferulic acid/Kermanshah University of medical sciences/supervisor
• 2023	-	Investigation the effects of falling water-ACP on dexification of aflatoxin B1 and qualitative properties of soymilk/Kermanshah University of medical sciences/ advisor
• 2023	-	Production coating of Pickering nanoemulsion with carboxymethyl cellulose-chitosan-basil essential oil in order to increase the shelf life of cucumber/Kermanshah University of medical sciences/ advisor
• 2023	-	A review on effective methods of reducing cholesterol in food/Kermanshah University of medical sciences/supervisor
• 2023	-	Review on recent application of sugar substitutes in food products/Kermanshah University of medical sciences/supervisor
• 2023	-	Production of synbiotic Rose hip leather/Kermanshah University of medical sciences/supervisor

---

• 2023	- Production of smart and active film based on polyvinyl alcohol containing sumac extract using electrospinning method/Kermanshah University of medical sciences/ advisor
• 2022	- Investigation of aflatoxin B1 degradation in sesame seeds using cold plasma method/Kermanshah University of medical sciences/supervisor
• 2022	- Current application of fat replacers and their challenges in low-fat mayonnaise/Kermanshah University of medical sciences/supervisor
• 2022	- The effect of cold plasma on the reduction of aflatoxin B1 in oat/Kermanshah University of medical sciences/supervisor
2022	- Investigating the physicochemical and mechanical properties of PH-sensitive smart film with the combination of Panerak flower extract in polyacrylonitrile matrix using electrospinning method/Kermanshah University of medical sciences/advisor
• 2022	- An overview of cellulose and its derivatives application in smart/intelligent bio-based food packaging/ Kermanshah University of medical sciences/supervisor
• 2022	- Investigating the relationship between Plant-based diet Index (PDI) with hepatic steatosis and fibrosis evaluated by fibroScan among patients with non-alcoholic fatty liver/ Kermanshah University of medical sciences/assistant
• 2022	- Evaluating the relationship between adherence to the Mediterranean diet and severity of hepatic fat and risk of hepatic fibrosis in patients with non-alcoholic fatty liver disease/ Kermanshah University of medical sciences/assistant
• 2022	- A review on the application of active and intelligent packaging films based on starch polymers and polyvinyl alcohol/ Kermanshah University of medical sciences/supervisor
• 2022	- Assessing the risk of heavy metals in cheese samples from around the world/ Kermanshah University of medical sciences/assistant
• 2022	- Production of symbiotic diet ice cream yogurt, containing natural color and fortified with quinoa/ Kermanshah University of medical sciences/supervisor
• 2021	- Preparation and application of film based on gelatin / hydroxymethylcellulose (HPMC) and red beetroot betalain in smart food packaging/ Kermanshah University of medical sciences/supervisor
• 2021	- Investigation of the effect of fat replacement with structured oleogel of cress seed gum and ferula gammosa gum on physicochemical properties of hamburgers/ Kermanshah University of medical sciences/advisor
• 2021	- Fabrication and characterization of Oleogel stabilized by zein-xanthan particles/ Kermanshah University of medical sciences/supervisor
• 2021	- Production of low-fat rich mayonnaise enriched with vitamin D and prebiotics/ Kermanshah University of medical sciences/advisor
• 2021	- Design of intelligent active colorimetric indicators based on biodegradable biopolymers of nanofibers, gelatin containing

		lactoferrin and saffron pigment using electrospinning method for use in food packaging Kermanshah University of medical sciences/assistant
• 2021	-	Intelligent packaging design based on natural biopolymers containing titanium dioxide nanoparticles and saffron pigment to increase the shelf life of fish/ Kermanshah University of medical sciences/assistant
• 2021	-	production of beneficial cupcakes for celiac and diabetic patients/ Kermanshah University of medical sciences/supervisor
• 2020	-	Design of multi-purpose intelligent packaging based on natural gelatin/carrageenan biopolymers containing titanium dioxide nanoparticles and barberry extract to increase product shelf life, monitor, control and track freshness and spoilage of seafood (fish) using pH index
• 2020		Evaluation of peeled oleaster ( <i>Elaeagnus angustifolia</i> L.) flour (PO) and unpeeled oleaster flour (UPO) effect as an antimicrobial, stabilizer, and antioxidant in the production of mayonnaise/ Kermanshah University of medical sciences/supervisor
• 2020	•	Internal evaluation of food Science & technology department of Kermanshah University of medical sciences in 2020/ Kermanshah University of medical sciences/Assistant
• 2020	•	The Effect of satureja kermanshahensis Jamzad essential oil nanoemulsion on the physicochemical, Structural, antibacterial and Antioxidant properties of gelatin- nano selenium composite films/ Kermanshah University of medical sciences/Advisor
• 2020	•	Assessment of aflatoxin B1 changes, in bread and traditional wheat-based products during processing and estimation of its Dietary Intake/ Kermanshah University of medical sciences/Advisor
• 2020	•	Risk assessment and exposure to aflatoxins B1 through the consumption of traditional cookies in Kermanshah/ Kermanshah University of medical sciences/Advisor
• 2017	•	Effect of oil type on stability and physicochemical properties of oil-in-water emulsion in the presence of gossypinus tragacanth gum / Shahid Beheshti University of Medical Sciences / supervisor
• 2016	•	Investigation of temperature dependence of steady, unsteady rheological properties and Cox Merz law of oil in water emulsion stabilized with tragacanth gum / Shahid Beheshti University of Medical Sciences / supervisor
• 2016	•	Evaluation of production and optimization of structured oil systems: ethylcellulose and betacitosterol oleogels and hydrocolloid-based oleogels in margarine with low saturated fatty acid / Shahid Beheshti University of Medical Sciences / supervisor

---

<ul style="list-style-type: none"> <li>• 2016</li> </ul>	<ul style="list-style-type: none"> <li>• Investigation of the use of tragacanth gum as a walnut coating to prevent oxidation / Shahid Beheshti University of Medical Sciences / supervisor</li> </ul>
<ul style="list-style-type: none"> <li>• 2015</li> </ul>	<ul style="list-style-type: none"> <li>• Using edible coatings as biological packaging for cheese storage / Shahid Beheshti University of Medical Sciences / supervisor</li> </ul>
<ul style="list-style-type: none"> <li>• 2013</li> </ul>	<ul style="list-style-type: none"> <li>• The effect of pH, ionic strength and storage temperature on the stability and physicochemical properties of oil-in-water emulsion in the presence of tragacanth gum (<i>Astragalus gossypinus</i>) / Shahid Beheshti University of Medical Sciences / supervisor</li> </ul>

---

### Books

<ul style="list-style-type: none"> <li>• 2017</li> </ul>	<ul style="list-style-type: none"> <li>- Collecting and compiling of comprehensive textbook for entrance exam of food science and technology.</li> </ul>
<ul style="list-style-type: none"> <li>• 2017</li> </ul>	<ul style="list-style-type: none"> <li>- Collecting and compiling of essential points for entrance exam of food science and technology.</li> </ul>
<ul style="list-style-type: none"> <li>• 2022</li> </ul>	<ul style="list-style-type: none"> <li>- Food hygiene and safety in emergencies</li> </ul>

---

### Inventions & Innovations

<ul style="list-style-type: none"> <li>• 2022</li> </ul>	<ul style="list-style-type: none"> <li>• The production process of low saturated minarin using oleogel based on hydroxypropyl methyl cellulose and rapid cooling and ripening pre-processe.</li> </ul>
<ul style="list-style-type: none"> <li>• 2021</li> </ul>	<ul style="list-style-type: none"> <li>• Low saturated margarine production process using oleogel based on hydrocolloid</li> </ul>
<ul style="list-style-type: none"> <li>• 2023</li> </ul>	<ul style="list-style-type: none"> <li>• Producing a functional hamburger with a reduced amount of saturated fat based on oleogel of cress seed gum and ferula gammosa gum</li> </ul>
<ul style="list-style-type: none"> <li>• 2024</li> </ul>	<ul style="list-style-type: none"> <li>• Production of synbiotic Rose hip leather</li> </ul>

---

### Conferences

<ul style="list-style-type: none"> <li>• 2018</li> </ul>	<ul style="list-style-type: none"> <li>• Abdolmaleki Khadije, Alizadeh, Leyla, Nayebzadeh Kooshan “Rheological properties of edible oleogels prepared with hydrocolloids” third national conference of rheology, June, Iran.</li> </ul>
<ul style="list-style-type: none"> <li>• 2018</li> </ul>	<ul style="list-style-type: none"> <li>• Alizadeh, Leyla, Abdolmaleki Khadije, Nayebzadeh Kooshan. “Rheological properties balangu seed gum/sodium caseinate stabilized emulsions and oleogels”. XIIIth International Conference of Food Physicists, Antalya – Turkey.</li> </ul>
<ul style="list-style-type: none"> <li>• 2021</li> </ul>	<ul style="list-style-type: none"> <li>• Influence of palm oil replacement with wax-based oleogel on low saturated fat margarine/ 5th International</li> </ul>

---



---

Conference on Food Industry Sciences, Organic Farming  
and Food Security/ Tbilisi, Georgia

---

#### Presentations & Published Abstracts

---

- 2018
    - Abdolmaleki, K., Alizadeh, L. & Nayebzadeh, K. Comparing the rheological properties of emulsion and oleogel based on gum Tragacanth and sodium caseinate. XIIIth International Conference of Food Physicists, Akdeniz University.
- 

#### Workshops

---

- 2020
    - Proper principles of cereal storage / Food and Drug Administration
  - 2021
    - Adulteration in oils / Food and Drug Administration
    - Food Rheology / Research Committee
    - The principles of GMP / Research Committee
    - The familiarity with Mendeley software/ Research Committee
- 

#### Editorial Board and Reviewing Activities

---

- Reviewer in
    - Food Hydrocolloids
    - Food Bioscience
    - Journal of Cereal Science
    - Journal of Dispersion Science and Technology
    - Iranian journal of nutrition science and food technology
    - International Journal of Food Science & Technology
- 

#### Professional Memberships

---

- Member of Iranian Food Science and Technology Association
  - Member of Iranian Food Rheology Association
  - Member of the Iran's National Elites Foundation.
- 

#### Awards & Grants

---

- 2012
    - 6<sup>th</sup> Rank, entrance exam for the master course in food science and engineering.
  - 2012
    - 1<sup>st</sup> Rank, entrance exam for the master course in food science and technology (food quality control).
  - 2015
    - 1<sup>st</sup> Rank, entrance exam for the Ph.D. course in food science and technology (food quality control).
  - 2016, 2017, 2018
    - Top student introduced to the Iran's national elites' foundation by the Shahid Beheshti University of Medical Sciences.
-