



Curriculum Vitae

Hoda Shahiri Tabarestani

Associate Professor, Faculty of Food Science, Gorgan
University of Agricultural Sciences and Natural
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Web Profiles & Identifiers

- <https://gau.ac.ir//Professor/shahiri>
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- Scopus ID: 54974394200

Education

- **2010- 2015 | PhD (Food Science)**
Ferdowsi University of Mashhad (FUM), Agriculture Faculty, Department of Food Science & Technology, Mashhad, Iran
 - **Title of dissertation:** E-spun Cellulose Acetate Nanofiber Containing *Froriepia subpinnate* Extract/ White-cheek Shark (*Carcharhinus dussumieri*) Fish Skin Gelatin
- **2006-2008 | MSc (Food Science)**
Gorgan University of Agricultural Sciences & Natural Resources (GUASNR), Faculty of Food Science, Department of Food Science & Technology, Gorgan, Iran
 - **Title of thesis:** Optimization of Gelatin Extraction Conditions from Rainbow Trout (*Onchorhynchus mykiss*) Skin
- **2002-2006 | BSc (Food Science)**
Gorgan University of Agricultural Sciences & Natural Resources (GUASNR), Faculty of Food Science, Department of Food Science & Technology, Gorgan, Iran

Research Interests

- Food Hydrocolloids: Structural characterization, chemical-functional properties, and interactions with food components
- Functional enhancement of plant proteins using green strategies and emerging technologies
- Sustainable utilization of food industry by-products
- Nanotechnology applications in packaging, encapsulation, and controlled release of bioactive compounds
- Process optimization and formulation enrichment of food products

Executive Positions and Professional Activities

2023–Present	Entrepreneurship Advisor, Faculty of Food Science, GUASNR
2019–2021	Research Council Member, The Health of Plant and Livestock Products Research Center, Mazandaran University of Medical Sciences
2023	Head of Food Process Engineering Department, GUASNR
2021–2023	Full-time Faculty Member, GUASNR
2017–Present	

Honors and Awards

2025	Teaching award for outstanding academic performance (GUASNR)
2024	Best Poster Award – 4th International & 29th National Congress of Food Science and Technology (IROST, Tehran)
2023	Teaching award for outstanding academic performance (GUASNR)
2021	Selected as the top faculty member with Highest Hirsch index (H-index) growth (Department of Food Science and Technology), and Highest-Quality ISI Paper (GUASNR)
2020	First-Rank Consultant Professor for Student Scientific Associations (GUASNR Harkat Festival)
2015	Distinguished Ph.D. Graduate, Ferdowsi University of Mashhad
2008, 2006	First-Ranked Graduate (M.Sc. & B.Sc.), GUASNR

Academic Teaching Experience

Undergraduate Courses	Principles of Agricultural Products Processing & Preservation; Postharvest Physiology; Cold Storage & Warehousing; Nutrition; Machinery for Bioactive Extraction; Computer Applications in Food Science; Entrepreneurship; Beverage Technology; Meat & Fisheries Technology; Food Chemistry & Biochemistry; Packaging Machinery & Equipment; General Biochemistry; English for Specific Purposes (ESP, Food science); Food Chemistry I & II
M.Sc. Courses	Lipid Chemistry; Chemical & Functional Properties of Food Components; Physical Chemistry of Food Processes
Ph.D. Courses	Food Component Interactions, Advanced Extraction and Purification Methods

Publications (International & National Journals)

1. Purabdollah H; Sadeghi A; Jafari SM; Ebrahimi M; **Shahiri Tabarestani H**. 2025. Evaluation of probiotic, antifungal, and antioxidant properties of the predominant yeast isolated from acorn sourdough. Journal of Food Science & Technology (2008-8787) 21 (160).
2. Arabmofrad S; Jafari SM; Ziaiiifar AM; **Shahiri Tabarestani H**; Bahlakeh G. 2025. Synthesis and characterization of surface modified montmorillonite for nano-adsorption of phenolic compounds from olive mill wastewater as a novel valorization strategy. Results in Engineering, 105088.
3. Sadeghi A; Alami M; **Shahiri Tabarestani H**; Rahimi D. 2025. Application of fermented black rice along with malt coating containing potential probiotic yeast to produce a functional cupcake. Journal of Food Science & Technology. (2008-8787) 21 (155).
4. Fayzi Karim Abadi E; Sadeghi Mahoonak A.R; Ghorbani M; **Shahiri Tabarestani H**; Ataei Z. 2024. Optimization of physico-chemical properties and

- release of microencapsulated curcumin in Gum Mastic biopolymer. *Journal of Innovation in Food Science and Technology*, 16 (62): 131-146.
5. Saeedabad, S. S; **Tabarestani, H. S**; Ghorbani, M; Ziaiiifar A. M. 2024. Ohmic heating as a novel approach for enhancing the techno-functional properties of sesame protein isolate. *LWT*, 214, 117151.
 6. **Tabarestani HS**; Shahram H; Mahoonak AS; Moayed A; Kaveh S. 2024. Enzymatic hydrolysis of white-cheek shark skin gelatin: Optimization, structural transformations, functional characteristics, and antioxidant potential. *LWT*. 213,117060.
 7. **Shahiri Tabarestani H**; Moayed A; Mohammadi F. 2024. *Opuntia Stricta* fruit pulp enrichment in ketchup formulation: Effect on physicochemical, bioactive, and sensory acceptability. *Applied Food Research*. 4(2):100579.
 8. Hashemi Koochaksarayee H.R; **Shahiri Tabarestani H**; Sadeghi Mahoonak A.R; Ghorbani M; Alami M. 2024. Modification of chemical and functional properties of commercial cold-water fish gelatin by oak acorn (*quercus. Castaneifolia*) phenolic extract. *Food Processing and Preservation Journal (Iran)*. 16 (1):1-16
 9. Fayzi Karim Abadi E; Sadeghi Mahoonak A.R; Ghorbani M; **Shahiri Tabarestani H**; Ataei Z. 2023. Investigating the effects of modified Mastic Gum microcapsule containing Curcumin on MCF-7 cell line by MTT test. *Food Processing and Preservation Journal*, 15(4): 63-86.
 10. **Tabarestani H.S**; Mahoonak A.S; and Ghorbani M. 2024. Formulating low-fat beef burger with fenugreek seed gum: Impact on texture, chemistry, and sensory characteristics. *Food and Humanity*. 100260.
 11. Manjili Z.N; Mahoonak A.S; Ghorbani M; and **Tabarestani H.S**. 2024. Multi-layer encapsulation of pumpkin (*Cucurbita maxima* L.) seed protein hydrolysate and investigating its release and antioxidant activity in simulated gastrointestinal digestion. *Heliyon*.10, e29669
 12. Arabmofrad S; Jafari S.M; Lazzara G; Ziaiiifar A.M; **Tabarestani H.S**; Bahlakeh G; Cavallaro, G; Calvino M.M; and Sarvi M.N. 2024. Preparation and characterization of surface-modified montmorillonite by cationic surfactants for adsorption purposes. *Journal of Thermal Analysis and Calorimetry*. 148:13803–13814.
 13. Feizi P; Maghsoudlou Y; **Shahiri Tabarestani H**; Jafari S.M; and Bahri A. 2024. Comparison Astaxanthin extraction of *Fenneropenaeus merguensis* and *Pontogammarus maeoticus* by using organic solvent, sunflower oil and ionic

- liquid micro emulsion. *Iranian Food Science and Technology Research Journal*. 20 (2): 309-321.
14. Nooshi Manjili Z; Sadeghi Mahoonak A; Erfani Moghadam V; Ghorbani M; and **Shahiri Tabarestani H**. 2024. Using microwave pretreatment in the enzymatic hydrolysis of pumpkin seed protein (*Cucurbita maxima* L.) by alcalase and investigating its antioxidant properties. *Iranian Food Science and Technology Research Journal*, 20 (2): 295-308.
 15. Nooshi Manjili Z; Sadeghi Mahoonak A; Erfani Moghadam V; Ghorbani M; and **Shahiri Tabarestani H**. 2023. Optimizing enzymatic hydrolysis of pumpkin seeds protein (*Cucurbita maxima* L.) by pancreatin with using microwave pretreatment. *Journal of food science and technology (Iran)*, 20(143): 78-90.
 16. Rezaei-Saraji M; Ghorbani M; Mahoonak A.S; **Tabarestani H.S**; and Ghasemnezhad A. 2023. Extraction of phenolic and flavonoid compounds of *Grammosciadium platycarpum* Boiss. & Hausskn extract and their microencapsulation in alginate hydrogel. *Food Processing and Preservation Journal (Iran)*, 14 (4): 91-110.
 17. Shafiei Sh; Aalami M; **Tabarestani Sh.H**; Amiri Aghda S. 2023. Effect of broad bean (*Vica faba*.L) protein concentrate and xanthan gum on the properties of rice batter and cake. *Food Processing and Preservation Journal*, 14 (4): 111-124.
 18. Rahimipanah M; Sadeghi Mahoonak A; Ghorbani M; **Shahiri Tabarestani H**; and Nabimeybodi M. 2023. Optimization of Antioxidant Peptides Production from Tryptic Hydrolysis of Pomegranate Seed Protein. *Iranian Food Science and Technology Research Journal (Iran)*, 19(1): 181-194.
 19. Shahiri Tabrestani P; Kashiri M; Maghsoudlou Y; **Shahiri Tabarestani H**; and Ghorbani M. 2023. Evaluation of Prickly Pear's Pulp Powder (*Opuntia stricta*) on Physicochemical Properties of Raw and Cooked Analogue Burgers. *Iranian Food Science and Technology Research Journal*, 19(1): 31-41.
 20. Tavasoli S; Maghsoudlou Y; Jafari S.M; and **Shahiri Tabarestani H**. 2023. Fabrication of stable Pickering emulsion using hybrid particles comprised of biopolymers. *Food Processing and Preservation Journal (Iran)*, 15 (1): 109-124.
 21. Tavasoli S; Maghsoudlou Y; Jafari S.M; and **Shahiri Tabarestani H**. 2023. Changes in emulsifying properties of caseinate-Soy soluble polysaccharides conjugates by ultrasonication. *Ultrasonics Sonochemistry*, 106703.
 22. Alvand M; Sadeghi Mahoonak A.R; Ghorbani M; **Shahiri Tabarestani H**; and Kaveh SH. 2023. Effect of enzyme type and hydrolysis time on antioxidant

- properties of hydrolyzed Turkmen melon seed protein. *Journal of Innovation in Food Science and Technology (Iran)*, 15 (3): 99-112.
23. Jafari koshkghazi F; Sadeghi A.R; Alami M; **Shahiri Tabarestani H**; and Rahimi Galogahi D. 2023. Evaluation of probiotic and antifungal properties of the selected yeast isolated from fermented black rice. *Journal of Food Microbiology (Iran)*, 10 (1): 59-70.
 24. Tavasoli S; Maghsoudlou Y; Jafari SM, and **Shahiri Tabarestani H**. 2022. Improving the emulsifying properties of sodium caseinate through conjugation with soybean soluble polysaccharides. *Food Chemistry*. 377, 131987.
 25. Rahimipناه M; Sadeghi Mahoonak A; Ghorbani M; **Shahiri Tabarestani H**; and Nabi Meybodi M. 2022. Expeller-pressed pomegranate seed (*Punica granatum* L.) as a protein source for the production of antioxidant peptides. *International Journal of Peptide Research and Therapeutics*. 28(4), 122.
 26. Arabmofrad S; Jafari SM; Ziaifar AM; **Shahiri Tabarestani H**; and Bahlakeh G. 2022. Investigation of physico-chemical properties of montmorillonite modified with cationic surfactant. *Journal of food science and technology (Iran)*. 19 (124), 347-357.
 27. Shahiri Tabarestani P; Kashiri M; Maghsoudlou Y; **Shahiri Tabarestani H**; and Ghorbani, M. 2022. Effect of Opuntia pulp as a clean label ingredient on techno-functional properties of meat-free burger. *International Journal of Food Science & Technology*. 57(7), 3982-3989.
 28. Purabdollah H; Sadeghi A; Ebrahimi M; Kashaninejad M; **Shahiri Tabarestani H**; and Mohamadzadeh J. 2022. Evaluation of probiotic and antifungal properties of the predominant LAB isolated from fermented acorn (*Quercus persica*). *Journal of Food Science and Technology (Iran)*. 19 (124), 171-183.
 29. Bagheri Z; Forouzeh M R; Mazandarani M; **Shahiri Tabarestani H**; and Atashi S. 2022. Investigation on changes in some quantitative, morphological and physiological parameters of (*Verbascum thapsus*) in various elevation classes in Hezar Jarib. *Journal of Rangeland (Iran)*. 16 (1), 108-123.
 30. Alehosseini E; **Shahiri Tabarestani H**; Kharazmi M. S; and Jafari S.M. 2022. Physicochemical, thermal, and morphological properties of chitosan nanoparticles produced by ionic gelation. *Foods*, 11(23), 3841.
 31. Norian Behfar S; Kashiri M; Maghsoudlou Y; Khomeiri M; and **Shahiri Tabarestani H**. 2022. Evaluation of the effect of xanthan gum and chia seed flour on the physical stability, textural and rheological properties of dairy

- spread containing Samanou powder. *Food Processing and Preservation Journal (Iran)*, 14 (1), 99-115.
32. Khosravi Iarjany M; Sadeghi Mahoonak A; Ghorbani M; and **Shahiri Tabarestani H**. 2022. Optimization of enzymatic hydrolysis conditions of cantaloupe (*Cucumis melo var cantalupensis*) seed protein concentrate to achieve maximum antioxidant activity. *Iranian Journal of Food Science and Technology (FSCT)*, 19 (124), 285-302.
 33. Izanloo I; Sadeghi Mahoonak A.R; **Shahiri Tabarestani H**; Mazloomi S.N; and Rashidi M. 2022. Optimization of production of hydrolyzed protein with antioxidant properties from edible mushroom (*Agaricus bisporus*). *Food Processing and Preservation Journal (Iran)*, 14 (3), 55-78.
 34. Forouzeh M A; Sharifian A; Yeganeh H; and **Shahiri Tabarestani H**. 2022. Evaluation of antioxidant activity, phenolic, and flavonoid content of *Tussilago farfara* L. in different altitudes and phenological stages. *Journal of Ilam University of Medical Sciences (Iran)*, 30 (4), 15-26.
 35. Alvand M; Sadeghi Mahoonak A; Ghorbani M; **Shahiri Tabarestani H**; Kaveh S. 2022. Comparison of the Antioxidant Properties of Hydrolyzed Turkmen Melon Seed Protein by Pancreatin and Alcalase. *Food Engineering Research (Iran)*, 21(2): 75-90.
 36. Hoseyni S.Z; Jafari S.M; **Shahiri Tabarestani H**; Ghorbani M; Assadpour E; and Sabaghi M. 2021. Release of catechin from Azivash gum-polyvinyl alcohol electrospun nanofibers in simulated food and digestion media. *Food hydrocolloids*. 112, 106366.
 37. Kashiri M; Dehghani M; Maghsoudlou Y; Ghorbani M; **Shahiri Tabarestani H**; and Hassania M. 2021. Investigation the effect of Oleic acid and Beeswax on physical and functional properties of emulsion films based on fine wheat powder. *Journal of food science and technology (Iran)*. 18(118), 93-105.
 38. Alehosseini E; Jafari S.M; and **Shahiri Tabarestani H**. 2021. Production of d-limonene-loaded Pickering emulsions stabilized by chitosan nanoparticles. *Food Chemistry*. 354, 129591.
 39. Yazdani F; Raftani Amiri Z; and **Shahiri Tabarestani H**. 2021. Preparation of low calorie sour tea jelly using stevia and gelatin of chicken skin-evaluation of the product. *Journal of Food Technology and Nutrition (Iran)*. 18, 55-68.
 40. Mohajer Khorasani S; Aalami M; Kashaninejad M; and **Shahiri Tabarestani H**. 2021. Effect of adding millet flour and Xanthan gum on the physicochemical

- and sensorial properties of gluten-free cake. *Journal of Food Processing and Preservation (Iran)*. 13 (1), 57-70.
41. Alehosseini E; Jafari SM; and **Shahiri Tabarestani H**. 2021. Evaluating the performance of artificial neural networks (ANNs) for predicting the physical, rheological, and colorimetric properties of chitosan nanoparticles (CSNPs). *Iranian Journal of Food Science and Technology*. 18 (113), 77-90.
 42. Poursaeid M; **Shahiri Tabarestani H**; and Aghajanzadeh Souraki S. 2021. Evaluation of technological and sensory properties of low-fat beef burger containing Madwort (*Alyssum homolocarpum*) seed gum as fat replacer. *Food Processing and Preservation Journal (Iran)*. 13 (2), 79-94.
 43. Bagheri Z; Foroozeh M; Mazandarani M; **Shahiri H**; Atashi S. 2021. The effect of height, solvent, plant organs and extraction method on some phytochemical properties of *Verbascum speciosum* schard In Chaharbagh rangelands, Golestan province. *Journal of Rangeland (Iran)*. 15 (1), 84-97.
 44. Mohajer Khorasani S; Alami M; Kashaninezhad M; and **Shahiri Tabarestani H**. 2020. Comparison of the effect of microwave treatment of millet grain and the addition of xanthan gum on the characteristics of the batter and the physicochemical and sensorial properties of gluten-free cake. *Journal of Food Research (Iran)*. 30 (3), 169-187.
 45. Purabdollah H; Sadeghi A; Ebrahimi M; Kashaninejad M; **Shahiri Tabarestani H**; and Mohamadzadeh J. 2020. Techno-functional properties of the selected antifungal predominant LAB isolated from fermented acorn (*Quercus persica*). *Journal of Food Measurement and characterization*. 14, 1754-1764.
 46. Rostamabadi H; Assadpour E; **Shahiri Tabarestani H**; Falsafi S.R; and Jafari S.M. 2020. Electrospinning approach for nanoencapsulation of bioactive compounds: Recent advances and innovations. *Trends in Food Science and Technology*, 100, 190-209.
 47. Hoseyni S.Z; Jafari S.M; **Shahiri Tabarestani H**; Ghorbani M; Assadpour E; and Sabagh M. 2020. Production and characterization of catechin-loaded electrospun nanofibers from Azivash gum- polyvinyl alcohol. *Carbohydrate Polymers*. 235, 115978-115979.
 48. Hoseyni SZ; Jafari SM; **Shahiri Tabarestani H**; Ghorbani M; Assadpour E. 2019. Effect of solution parameters on morphology and formation of electrospun nanofibers from Azivash (*Corchorus olitorius* L) leaf gum-polyvinyl alcohol. *Journal of Food Science and Technology (Iran)*. 16 (87), 353-368.

49. Mohajer khorasani S; Alami M, Kashaninejad M; and **Shahiri Tabarestani H.** 2019. Comparison of the effect of heat-moisture treatment of millet grain and addition of xanthan gum on the characteristics of the batter and physicochemical and sensory properties. *Journal of Food Science and Technology (Iran)*. 16 (90), 229-244.
50. Mojaverian SP; Raftani Amiri Z; and **Shahiri Tabarestani H.** 2019. Sensory parameters evaluation of ginger gummy confection by surface response methods and principal components analysis. *Food Engineering Research (Iran)*. 18 (66), 21-36.
51. Karami F; Aalami M; Sadeghi Mahoonak A; and **Shahiri Tabarestani H.** 2019. Evaluation of functional properties of millet flour ready for use in gluten-free cookie formulations based on rice flour. *Journal of Food Science and Technology (Iran)*. 16 (87), 1-15.
52. Mohajerkhorasani S; Alami M; Kashaninejad M; and **Shahiri Tabarestani H.** 2019. Increasing the shelf life of millet flour by using heat-moisture and microwave treatments. *Journal of Food Science and Technology (Iran)*. 16 (86), 83-93.
53. Karami F; Aalami M; Sadeghi Mahoonak A; and **Shahiri Tabarestani H.** 2019. Effect of heat-moisture treatment of proso millet grain on physicochemical properties of flour and produced cookies. *Journal of Food Science and Technology (Iran)*. 16 (88), 185-200.
54. Yazdani F; Raftani Amiri Z; and **Shahiri Tabarestani H.** 2018. Optimization of pre-treatment conditions for producing gelatin from chicken skin by response surface methodology. *Innovative Food Technologies (Iran)*. 5 (3), 415-426.
55. Mojaverian SP; Raftani Amiri Z; and **Shahiri Tabarestani H.** 2018. Optimization of ginger gummy confection formulation based on chicken feet and grape concentrate using response surface methodology (RSM). *Journal of Food Science and Technology (Iran)*. 15 (82), 319-334.
56. Barekati M; Beigmohammadi Z; and **Shahiri Tabarestani H.** 2018. Study on the quality of low-fat chicken burger formulated by carboxy methyl cellulose and potato starch. *Food Engineering Research (Journal of Agricultural Engineering Research)*. 17 (64), 1-14.
57. **Shahiri Tabarestani H;** Sedaghat N; Jahanshahi M; Motamedzadegan A; & Mohebbi M. 2017. Development of optimized edible packaging based on white-cheek shark (*Carcharhinus dussumieri*) skin gelatin biopolymer: Mechanical, water vapor permeability, and structural properties. *Journal of Aquatic Food Product Technology*. 26(10), 1244-1258.

58. **Shahiri Tabarestani H**; Sedaghat N; Jahanshahi M; Motamedzadegan A; & Mohebbi M. 2016. Physicochemical and rheological properties of white-cheek shark (*Carcharhinus dussumieri*) skin gelatin. *International Journal of Food Properties*. 19(12), 2788-2804.
59. **Tabarestani H.S**; Maghsoudlou Y; Motamedzadegan A; & Sadeghi Mahoonak A.R. 2014. Effect of pretreatment conditions on physicochemical properties of rainbow trout skin gelatin. *Journal of Aquatic Food Product Technology*. 23 (1), 14-24.
60. **Shahiri Tabarestani H** & Mazaheri Tehrani M. 2014. Optimization of physicochemical properties of low-fat hamburger formulation using blend of soy flour, split-pea flour and wheat starch as part of fat replacer system. *Journal of Food Processing and Preservation*. 38(1), 278-288.
61. **Tabarestani H.S**; Maghsoudlou Y; Motamedzadegan A; & Sadeghi Mahoonak A.R. 2012. Study on some properties of acid-soluble collagens isolated from fish skin and bones of rainbow trout (*Onchorhynchus mykiss*). *International Food Research Journal*. 19 (1).251-257.
62. Rostamzad H; Shabanpour B; Shabani A; and **Shahiri H**. 2011. Enhancement of the storage quality of frozen Persian sturgeon fillets by using of ascorbic acid. *International Food Research Journal*. 18 (1).109-116.
63. **Tabarestani H.S**; Maghsoudlou Y; Motamedzadegan A; & Sadeghi Mahoonak, A.R. 2010. Optimization of physico-chemical properties of gelatin extracted from fish skin of rainbow trout (*Onchorhynchus mykiss*). *Bioresource Technology*. 101(15), 6207-6214.
64. Ovissipour M; Abedian A; Motamedzadegan A; Rasco B; Safari R; & **Shahiri H**. 2009. The effect of enzymatic hydrolysis time and temperature on the properties of protein hydrolysates from Persian sturgeon (*Acipenser persicus*) viscera. *Food Chemistry*. 115(1), 238-242.

Full Scientific Papers Presented at National and International Conferences

- Nourian-Bahfar, S., Kashiri, M., Maghsoudlou, Y., Khamiri, M., and **Shahiri-Tabarestani, H.** (2021). *Effect of xanthan gum and chia seed flour on the physical, sensory, and microbial properties of spread based on milk fat containing Samanu powder*. The 4th International Conference on Interdisciplinary Studies in Food Industry and Nutrition Sciences of Iran, Center for the Development and Expansion of Interdisciplinary Studies, July 22, Tehran, Iran.
- Nourian-Bahfar, S., Kashiri, M., Maghsoudlou, Y., Khamiri, M., and **Shahiri-Tabarestani, H.** (2021). *Effect of xanthan gum and chia seed flour on the textural and rheological properties of spread based on milk fat containing Samanu powder*. In: The 4th International Conference on Interdisciplinary Studies in Food Industry and Nutrition Sciences of Iran, Center for the Development and Expansion of Interdisciplinary Studies, July 22, Tehran, Iran.
- Fallah-Nosar, M., **Shahiri-Tabarestani, H.**, Sadeghi-Mahoonak, A., Maghsoudlou, Y., and Moaydi, A. (2023). *Optimization of aqueous extraction of hydrocolloid from black hawthorn (Crataegus elbursensis) leaves using response surface methodology*. In: The 4th International and 29th National Conference on Food Science and Technology of Iran, Iranian Research Organization for Science and Technology, May 1, Tehran, Iran.
- Shahram, H. and **Shahiri-Tabarestani, H.** (2024). *A review on microencapsulation methods of hydrolyzed gelatin*. In: The 5th International and 30th National Conference on Food Science and Technology of Iran, Tarbiat Modares University, October 16, Tehran, Iran.

Extended Abstracts Presented at National and International Scientific Conferences

- Kashiri, M., Dehghani, M., Maghsoudlou, Y., Ghorbani, M., & **Shahiri Tabarestani, H.** (2022). *Investigation of the effect of beeswax and oleic acid on the antimicrobial properties of wheat flour-based films containing LAE*. Presented at the International Conference on Agricultural Research and Regional Sustainable Development Strategies, Bingol University, October 24, Bingol, Turkey.
- Bagheri, A.H., Kashiri, M., Maghsoudlou, Y., Jafari, S.M., **Shahiri Tabarestani, H.**, & Sardaroglu, F.M. (2023). *Development of a self-assembled edible ink based on chicken skin protein emulsion gel for application in 3D food printing*. Presented at the 4th International and 29th National Congress on Food Science and Technology of Iran, Iranian Research Organization for Science and Technology, May 2, Tehran, Iran.

Research Projects

- *Effect of pulsed ultrasound pretreatment on improving enzymatic hydrolysis and structural changes in luffa seed protein isolate* (Principal Investigator)
- *Using the combined effect of lactic fermentation and ohmic heating to improve the techno-functional properties of okara* (Collaborator) **2025**
- *Study of the effect of bigel enriched with spirulina on the physicochemical and functional properties of plant-based analog cheese* (Collaborator)
- *Pectin production from garlic peel: Ultrasound-assisted extraction and evaluation of chemical and functional properties* (Principal Investigator) **2024**
- *Optimization of fermentation process for SCOBY production with suitable texture and evaluation of carboxymethyl cellulose preparation* (Collaborator)
- Evaluation of white-cheek shark protein hydrolysate as a glycerol replacer in the production of active edible gelatin-based films* (Principal Investigator) **2023-2025**
- Optimization of enzymatic hydrolysis conditions and determination of chemical and functional properties of gelatin hydrolysates from white-cheek shark skin using response surface methodology* (Principal Investigator) **2021-2023**
- Physicochemical properties, antioxidant capacity, and sensory acceptance of tomato ketchup containing *Opuntia stricta* fruit pulp* (Principal Investigator) **2020-2023**
- Ecological characteristics and bioactive compounds of the medicinal plant *Tussilago farfara* L.* (Collaborator) **2019-2021**
- Effect of fenugreek seed hydrocolloid as a fat replacer on physicochemical and sensory properties of low-fat hamburgers* (Principal Investigator) **2017-2020**

Scientific Activities – Contribution to English Book Chapters

- Motamedzadgan A., & **Shahiri Tabarestani H.** (2018). Chapter 36: *Tomato Production, Processing, and Nutrition*. In: *Handbook of Vegetables and Vegetable Processing*, 2nd Ed. (Eds: M. Siddiq & M.A. Uebersax), pp. 839–863. Wiley Publishing.
- **Shahiri Tabarestani H.**, & Jafari S.M. (2019). Chapter 2: *Production of Food Bioactive-Loaded Nanofibers by Electrospinning*. In: *Nanoencapsulation in the Food Industry, Volume 3: Nanoencapsulation of Food Ingredients by Specialized Equipment*, pp. 31–105. Elsevier.

M.Sc. Thesis Supervision

Production and structural-molecular characterization of a plant-based protein complex and a betalain-rich extract from beetroot (<i>Beta vulgaris</i>) as a natural edible colorant	2025
Investigation of the effects of enzymatic and chemical pretreatments on the physicochemical and functional properties of white shark skin gelatin	2024
Production and evaluation of the properties of the insoluble complex of white-cheek shark skin gelatin and okra mucilage	2022–2024
Effect of ohmic heating on chemical and functional properties of sesame protein isolate	2021–2023
Development of probiotic ketchup containing <i>Opuntia stricta</i> pulp and evaluation of its technological characteristics during storage	2020
Application of ohmic heating and addition of <i>Opuntia stricta</i> pulp powder to improve the functional properties of white-cheek shark skin gelatin edible films	
Microencapsulation of bay leaf essential oil using Arabic gum and maltodextrin by spray drying	2020–2023
Optimization of extraction and evaluation of physicochemical, functional, and antioxidant properties of water-soluble polysaccharides from black hawthorn leaves	2019–2022
Modification of chemical and functional properties of commercial rainbow trout gelatin using phenolic extract of <i>Quercus castaneifolia</i> acorns	2018–2021
Effect of climatic and edaphic factors on phytochemicals in <i>Opuntia stricta</i> pulp powder from Hyrcanian and desert regions; physicochemical characterization of gummy candy with the powder	2018–2021
Electrospinning-based microencapsulation of catechin using nanofibers derived from the gum of <i>Azyvash</i> leaves	2016–2018

M.Sc. Thesis Advising

Evaluation of genetic diversity and drought tolerance in tomato (<i>Solanum lycopersicum</i>) genotypes based on fruit traits and molecular markers	2025
Production and evaluation of D-limonene nano-emulsion for peanut coating to prevent oxidation, mold growth, and improve quality	2024
Effect of lactic fermentation on functional properties of faba bean protein	2024
Impact of ultrasound pretreatment on antioxidant peptide production from milk thistle seed protein and their microencapsulation in alginate beads	2024
Development and physicochemical evaluation of plant-based cheese from <i>Mashhadi</i> melon seeds using ohmic heating	2023
Use of chicken skin emulgel containing barley malt root extract as a fat replacer in meat emulsions	2021–2023
Optimization of antioxidant and anti-inflammatory protein hydrolysate production from edible mushrooms	2020–2022
Production of low-fat UF cheese using date seed powder and transglutaminase enzyme for quality improvement	2019–2024
Effect of chitosan coating with free and encapsulated hydroalcoholic rosemary leaf extract on goat meat quality and shelf life	2019–2023
Optimization of soy whey fermentation with selected proteolytic lactic acid bacteria to maximize bioactivity	
Extraction and microencapsulation of phenolic and flavonoid compounds from <i>Anethum graveolens</i> in alginate hydrogels	
Use of faba bean protein concentrate and xanthan gum in rice cake formulation	2019–2022
Effect of oxygen-absorbing active packaging on walnut kernel quality and shelf life	
Production of bioactive peptides from Turkmen melon seed protein and their loading into alginate beads	
Predicting vitamin C degradation in sour orange juice during storage using accelerated test	
Evaluation of flavored and enriched olive oil production with limonene using nano-emulsions and electrospun nanofibers	2018–2022
Evaluation of probiotic and antifungal characteristics of selected yeast isolated from fermented quinoa and black rice	
Optimization of enzymatic hydrolysis of <i>Cucumis melo</i> var. <i>cantalupensis</i> protein isolate for maximum antioxidant activity	
Effect of xanthan gum and chia seed flour on physicochemical, rheological, textural, and sensory properties of semolina-based spread	2018–2021

Ph.D. Dissertation Advising

Enzymatic hydrolysis of chicken blood plasma and microencapsulation of the resulting bioactive peptides in a hydrogel system for application in orange juice beverages	2024
Optimization of cultivation variables for <i>Ganoderma lucidum</i> using Response Surface Methodology (RSM) and application of its spent compost to improve selected biophysico-chemical properties of soil	2023
Investigation of transport phenomena and rheological properties during frying of eggplant using natural oleogels	2023
Design and construction of a nanoencapsulation device for saffron extract in a nano-chitosome system and evaluation of its characteristics, release profile, and antidepressant properties under in vitro conditions	2023
Evaluation of the effects of edible coating on physicochemical properties of tomato slices dried using a combined infrared-hot air system, and modeling of mass transfer kinetics	2022
Design and application of a bacterial cellulose-pectin composite film derived from garlic peel (<i>Allium sativum</i> L.) waste and loaded with bacteriocin from traditional pickled garlic for sausage packaging	2022
Evaluation of postbiotic potential and microencapsulation of probiotic yeast isolated from oak sourdough for targeted delivery to the colon	2022
Detection and differentiation of gelatin from various sources in food products using high-resolution melting analysis (HRMA)	2022
Evaluation of active film properties based on sesame protein containing zinc oxide nanoparticles and Zataria essential oil nano-emulsion for packaging of solid food systems	2022
Application of phytoniosome nanocarriers for developing an appetite-suppressing compound based on grape leaf extract and evaluation of its efficacy and sensory acceptance in stirred yogurt	2022
Physicochemical and rheological properties of low-fat mayonnaise containing amylose-stearic acid-whey protein ternary complex	2022
Use of soy protein isolate-tannic/gallic acid-xanthan gum ternary conjugate as a stabilizer in quinoa milk formulation	2022
Effects of pumpkin seed protein isolate-Persian gum interactions on quality characteristics of gluten-free batter and cake	2021
Application of Chemical and Enzymatic Pretreatments for the Production of Egg Yolk Powder with Enhanced Physicochemical and Functional Properties for Use in Mayonnaise Formulation	2020
Microwave-assisted enzymatic hydrolysis of pumpkin seed protein for production of hydrolysates with antioxidant and anticancer properties and microencapsulation using alginate	2019-2023

Optimization of astaxanthin extraction from banana shrimp and <i>Gammarus</i> crustaceans using microwave and ultrasound pretreatments with organic solvent, sunflower oil, and ionic liquid-based microemulsion	2018-2023
Development, optimization, and evaluation of a functional chewing gum formulation containing encapsulated curcumin as a novel oral delivery system	2018-2022
Production of functional oleogel based on emulsion stabilized by caseinate-soy polysaccharide conjugate nanoparticles and its application as a shortening substitute in biscuit cream	2017-2022
Optimization of enzymatic hydrolysis of pomegranate seed protein, nanoencapsulation of the hydrolysate using chitosan, and evaluation of nanoparticle stability	2017-2022
Modeling and optimization of a modified montmorillonite nano-adsorbent system for phenolic compound removal and nanoencapsulation from olive mill wastewater	2017-2021
Evaluation of D-Limonene Encapsulation in a Hybrid Emulsion-Pickering-Nanofiber System and Investigation of Microstructural and Rheological Properties, and Modeling of D-Limonene Release	2017-2021

Editorial and Peer Review

- Served as a scientific reviewer in 36 national and international congresses in the field of Food and Science Technology (2018 - Present).
- Over 80 verified peer-review records for leading scientific journals including:
 - ❖ *Food Chemistry*
 - ❖ *Carbohydrate Polymers*
 - ❖ *LWT – Food Science and Technology*
 - ❖ *Food Structure*
 - ❖ *International Journal of Biological Macromolecules*
 - ❖ *Journal of Food Science and Technology*
 - ❖ *Food Hydrocolloids*, etc documented in the Publons.
- Reviewed and evaluated over 10 faculty-led research projects within the domain of Food Science and Technology, supporting academic quality and research development.