

Mohammad Ali Hesarinejad

Address: Research Institute of Food Science and Technology, Mashhad, Iran.

Tel (work): +98 (51) 35425369

Cell-Phone: +989153251599

E-mail: ma.hesarinejad@gmail.com, ma.hesarinejad@rifst.ac.ir

H-index: 9 (Google scholar)
Orcid ID: 0000-0002-2799-6982

EDUCATION:

2006-2010 Bachelor of Science (BSc) in Food Science and Technology, Ferdowsi University of Mashhad, Iran

2010-2012 Master of Science (MSc) in Food Technology Engineering, Ferdowsi University of Mashhad, Iran

M.Sc. Thesis title: Investigation of Viscoelastic Properties of *Alyssum homolocarpum* seed gum and *Lepidium perfoliatum* seed gum.

2013-2018 Doctor of Philosophy (PhD) in Food Technology, Ferdowsi University of Mashhad, Iran

Ph.D. Dissertation title: Interactions and gelation of *Lathyrus sativa* protein isolated and *Lepidium perfoliatum* seed gum for emulsion-gel preparation.

2016–2017 Guest visitor PhD student at Technical University of Denmark (DTU), Denmark

TEACHING BACKGROUND:

1. Full time teaching in the field of Food Science and Technology, at Research Institute of Food Science & Technology (RIFST) (for Ph.D. Students), Mashhad, Iran, 2018 to present.
2. Part time teaching in the field of Food Science and Technology, at The University of Semnan (for B.Sc Students), Semnan, Iran, 2012-2018.
3. Part time teaching in the field of Food Science and Technology, at Technical and Vocational University (for Associate Dip. Students), Neyshabour, Iran, 2012-2014.

RESEARCH PROJECTS:

1. Rafe, A., **Hesarinejad**, M.A., Sadeghian, A.R., Sarabi, M. Fabrication of Thermo-elastic Gel Systems of Ricotta Cheese Using Hydrocolloids in Stuffed Olive, Mahrad Chashni Food Production Company, Mashhad, Iran, 2017 to 2019.
2. **Hesarinejad**, M.A., Rafe, A., Sadeghian, A.R. Improving Iranian White Cheese Production Efficiency Using Food Hydrogels, Binalood Dairy Company, Neyshabour, Iran, 2018 to 2020.
3. **Hesarinejad**, M.A. The evaluation of Chubak extraction using Pulse Electric Fields with the aim of ice cream production, Alli Gıda Ürünleri, Turkey, 2019 to 2020.

4. **Hesarinejad**, M.A., Ghaderi, S. Investigation of the effect of high hydrostatic pressure process on rheological and functional characteristics of *Alyssum homolocarpum* seed gum, Joint research project with Medical Sciences University of Yasuj, Yasuj, Iran, 2019 to 2020.
5. **Hesarinejad**, M.A., Mohammadifar, M. A., Yeganehzad, S. Effect of cold plasma on physical and chemical properties of some proteins and carbohydrates with focus on dairy products to improve nutritional and sensory properties. Joint research project with Technical University of Denmark (DTU), Denmark, 2018 to 2022.
6. **Hesarinejad**, M.A. Production and evaluation of physicochemical and antioxidant properties of encapsulated *Portulaca oleracea* extract and its application in a dairy food model system, BehinParvar Co., Mashhad, Iran, 2020 to 2021.
7. Rafe, A., **Hesarinejad**, M.A. Probiotic Analog Meat based on waste soy protein, Rad Tejarat Co., Sari, Iran, 2020 to present.
8. Yeganehzad, S., **Hesarinejad**, M.A., Nepovinnykh, N. Production of oleogels for using in confectionery products. Joint research project with Higher Education Saratov State Agrarian University (SSAU), Saratov, Russia, 2018 to 2022.
9. Mirzababae, S.M., **Hesarinejad**, M.A., Toker, O.S., Yeganehzad, S. The effects of high hydrostatic pressure on functional and rheological properties of novel sources of starch, Joint research project with Yildiz Technical University (Food Engineering Department, Rheology Group), Turkey, 2019 to 2021.
10. Abdollahi-Moghaddam, M.R., **Hesarinejad**, M.A., Yeganehzad, S. Preparation of biodegradable polymer composites for making disposable food packaging containers, Behzist Danesh Narvan Company, Mashhad, Iran, 2020 to 2022.
11. Koocheki, A., Razavi, S.M.A., **Hesarinejad**, M.A. Optimization of *Eruca sativa* seed gum extraction conditions. Ferdowsi University of Mashhad, Iran, 2010.
12. Koocheki, A., **Hesarinejad**, M.A. Investigation of the effect of *Lepidium perfoliatum* seed gum, pH and temperature on the properties of O/W emulsion stabilized by WPC, Ferdowsi University of Mashhad, Iran, 2012.
13. Razavi, S.M.A., Koocheki, A., **Hesarinejad**, M.A. Effect of concentration, temperature, pH and some salts and sugars on rheological properties of *Alyssum homolocarpum* seed gum in dilute solutions, Ferdowsi University of Mashhad, Iran, 2013.
14. Milani, E., **Hesarinejad**, M.A., Extraction and evaluation of functional properties of *Lathyrus sativa* protein isolate with the aim of application in extruded products, Iranian Academic Center for Education Culture and Research (ACECR) Press, Mashhad, Iran, 2012.
15. Milani, E., **Hesarinejad**, M.A., Optimizing the extraction of *Lathyrus sativa* protein isolate and evaluating its functional properties, Iranian Academic Center for Education Culture and Research (ACECR) Press, Mashhad, Iran, 2012.
16. Milani, E., **Hesarinejad**, M.A., Barbari and Sangak bread formulation enriched with extruded wheat bran, Iranian Academic Center for Education Culture and Research (ACECR) Press, Mashhad, Iran, 2013.

BOOK PUBLICATION:

- **Food Safety Hazard Guidebook** (2013). Iranian Academic Center for Education Culture and Research (ACECR) Press, Mashhad, Iran. (Translation to Persian)
- Emerging Natural Hydrocolloids: Rheology and Functions, (Editor S.M.A. Razavi), Chapter 8: **Qodume Shirazi (*Alyssum homolocarpum*) Seed Gum**, John Wiley and Sons Ltd., Chichester, England.
- Emerging Natural Hydrocolloids: Rheology and Functions, (Editor S.M.A. Razavi), Chapter 10: **Qodume Shahri (*Lepidium perfoliatum*) Seed Gum**, John Wiley and Sons Ltd., Chichester, England.

PEER REVIEWED ARTICLES:

1. **Hesarinejad**, M. A., Koocheki, A., & Razavi, S. M. A. (2014). Dynamic rheological properties of *Lepidium perfoliatum* seed gum: Effect of concentration, temperature and heating/cooling rate. *Food Hydrocolloids*, 35, 583-589.
2. **Hesarinejad**, M. A., Razavi, S. M., & Koocheki, A. (2015). *Alyssum homolocarpum* seed gum: Dilute solution and some physicochemical properties. *International journal of biological macromolecules*, 81, 418-426.
3. Behbahani, B. A., Yazdi, F. T., Shahidi, F., **Hesarinejad**, M. A., Mortazavi, S. A., & Mohebbi, M. (2017). Plantago major seed mucilage: Optimization of extraction and some physicochemical and rheological aspects. *Carbohydrate polymers*, 155, 68-77.
4. Koocheki, A., Razavi, S. M., & **Hesarinejad**, M. A. (2012). Effect of extraction procedures on functional properties of *Eruca sativa* Seed Mucilage. *Food biophysics*, 7(1), 84-92.
5. Fathi, M., Mohebbi, M., Koocheki, A., & **Hesarinejad**, M. A. (2017). Dilute solution properties of *Prunus armeniaca* gum exudates: Influence of temperature, salt, and sugar. *International journal of biological macromolecules*, 96, 501-506.
6. **Hesarinejad**, M. A., Jokandan, M. S., Mohammadifar, M. A., Koocheki, A., Razavi, S. M. A., Ale, M. T., & Attar, F. R. (2017). The effects of concentration and heating-cooling rate on rheological properties of *Plantago lanceolata* seed mucilage. *International journal of biological macromolecules*, 115, 1260-1266.
7. Rezaiyan Attar, F., Rezagholi, F., & **Hesarinejad**, M. A. (2018). *Vicia villosa* protein isolate: a new source of protein to make a biodegradable film. *Potravinarstvo Slovak Journal of Food Sciences*, 12(1), 461-471.
8. Rezagholi, F., Hashemi, S. M. B., Gholamhosseinpour, A., Sherahi, M. H., **Hesarinejad**, M. A., & Tutor Ale, M. (2018). Characterizations and rheological study of the purified polysaccharide extracted from quince seeds. *Journal of the Science of Food and Agriculture*, 99 (1), 143-151.
9. Koocheki, A., & **Hesarinejad**, M. A. (2016). Effect of freezing, pasteurization and sterilization on physical properties of oil-in-water stabilized with *Lepidium perfoliatum* seed gum and whey protein concentrate. *Food Science and Technology*, 14(64), 31-21.

10. **Hesarinejad**, M. A., Razavi, S., & Koocheki, A. (2015). The viscoelastic and thermal properties of Qodume shirazi seed gum (*Alyssum homolocarpum*). *Iranian Food Science & Technology Research Journal*, 11(2), 116-128.
11. **Hesarinejad**, M. A., Razavi, S. M. A., Koocheki, A., & Mohammadifar, M. A. (2017). Study on the effects of sucrose and lactose on the rheological properties of *Alyssum homolocarpum* seed gum in dilute solutions. *Iranian Food Science and Technology Research Journal*, 13, 144-155.
12. **Hesarinejad**, M., Rezaiyan, A. F., Mosaffa, O., & Shokrolahi, Y. B. (2017). The effect of incorporation of *Chlorella vulgaris* into cake as an egg white substitute on physical and sensory properties. *Journal of Food Science and Technology*, 14 (68), 61-72.
13. Rezagholi, F., & **Hesarinejad**, M. A. (2017). Integration of fuzzy logic and computer vision in intelligent quality control of celiac-friendly products. *Procedia Computer Science*, 120, 325-332.
14. Shokrollahi, B., **Hesarinejad**, M.A., Rezaei, N., Salimi, A., Shemshadi, Gh., Kazemzadeh, M., Jebeli-Javan, A. (2018). Optimization of extraction conditions of antioxidant and polyphenolic compounds of *Persica Ferula* extract using response surface methodology. *Journal of Food Science and Technology*, 15 (85), 151-164.
15. **Hesarinejad**, M.A., Siyar, A., Rezaiyan Attar, F. (2019). Investigating the effect of wheat flour enrichment with *Phaseolus vulgaris* flour on the physical, sensory and shelf-life characteristics of sponge cake. *Journal of Food Science and Technology*, 16 (86), 213-222.
16. **Hesarinejad**, M.A., Khosrow Shahi, S., Jafar Nia, N. (2019). The effect of packaging on the food packaged products marketing. *Journal of Food Science and Technology*, 16 (91), 213-218.
17. Yasamani Farimani, T., **Hesarinejad**, M.A., Tat, M. (2020). A New Study on the Textural, Physical and Sensory Characteristics of Cupcakes with *Althaea Officinalis* Mucilage, *Iranian Food Science and Technology Research Journal*, 16 (3). DOI: 10.22067/ifstrj.v16i3.81666
18. **Hesarinejad**, M.A., Shekarforoush, E., Rezayian Attar, F., Ghaderi, S. (2019). The dependency of rheological properties of *Plantago lanceolata* seed mucilage as a novel source of hydrocolloid on mono- and di-valent salts. *International Journal of Biological Macromolecules*, 147, 1278-1284.
19. **Hesarinejad**, M.A., Koocheki, A., S.M.A. Razavi, Mohammadifar, M.A. (2020). Rheological Properties of Mixed Gel Based on *Lepidium perfoliatum* seed gum and *Lathyrus sativa* protein isolate. *Food Science and Technology*, 16(96), 175-184.
20. **Hesarinejad**, M. A., Rafe, A., Sadeghian, A., & Sarabi Jamab, M. (2020). Fabrication of elastic gel systems of Ricotta cheese containing some hydrocolloids in stuffed olive. *Food Science and Technology*, 17(101), 81-91.
21. Ghaderi, S., **Hesarinejad**, M. A., Shekarforoush, E., Mirzababae, S. M., & Karimpour, F. (2020). Effects of high hydrostatic pressure on the rheological properties and foams/emulsions stability of *Alyssum homolocarpum* seed gum. *Food Science & Nutrition*.
22. **Hesarinejad**, M. A., Shekarforoush, E., Attar, F. R., & Ghaderi, S. (2020). The dependency of rheological properties of *Plantago lanceolata* seed mucilage as a novel source of hydrocolloid on mono- and di-valent salts. *International journal of biological macromolecules*, 147, 1278-1284.

23. Ghaderi, S., Mazaheri Tehrani, M., & **Hesarinejad**, M. A. (2021). Qualitative analysis of the structural, thermal and rheological properties of a plant ice cream based on soy and sesame milks. *Food Science & Nutrition*, 9(3), 1289-1298.
24. Gamal Abdelmaksoud, T., **Hesarinejad**, M. A., & Shokrollahi Yancheshmeh, B. (2021). The effect of cold plasma on the enzymatic activity and quality characteristics of mango pulp. *Research and Innovation in Food Science and Technology*.
25. Amiryousefi, M. R., & **Hesarinejad**, M. A. (2021). Modeling of Kinetic Changes of Ostrich Meat Color during Deep Fat Frying by Image Processing. *Food Science and Technology*, 18(111), 361-369.
26. **Hesarinejad**, M. A., Abdollahi Moghaddam, M. R., Jafarzadeh, M., & Rezaee Oghazi, M. (2021). The study of physicochemical and antioxidant properties of encapsulated *Portulaca oleracea* aqueous extract prepared by spray drying method. *Innovative Food Technologies*, 8(3), 325-335.
27. Heydari, A., Razavi, S. M. A., **Hesarinejad**, M. A., & Farahnaky, A. (2021). New Insights into Physical, Morphological, Thermal, and Pasting Properties of HHP-Treated Starches: Effect of Starch Type and Industry-Scale Concentration. *Starch-Stärke*, 2000179.
28. Shahi, S. K., Didar, Z., **Hesarinejad**, M. A., & Vazifedoost, M. (2021). Optimized pulsed electric field-assisted extraction of biosurfactants from Chubak (*Acanthophyllum squarrosum*) root and application in ice cream. *Journal of the science of food and agriculture*, 101(9), 3693-3706.
29. Rezaiyan Attar, F., Sedaghat, N., Yeganehzad, S., Pasban, A., & **Hesarinejad**, M. A. (2021). Shelf life modeling of Badami's fresh pistachios coated with chitosan under modified atmosphere packaging conditions. *Food Science and Technology*, 18(114), 181-194.
30. Khosrow Shahi, S., **Hesarinejad**, M. A., Didar, Z., & Vazifedoost, M. (2021). Investigation of the effect of using Chubak extract on physicochemical and sensory properties of ice milk. *Food Science and Technology*, 18(114), 225-235.
31. Salehi, M., Khajehrahimi, A., & **Hesarinejad**, M. A. (2021). The Effect of *Dunaliella salina* on Physicochemical and Sensory Properties of Yogurt. *Food Science and Technology*, 18(117), 95-107.
32. **Hesarinejad**, M. A., Lorenzo, J. M., & Rafe, A. (2021). Influence of gelatin/guar gum mixture on the rheological and textural properties of restructured ricotta cheese. *Carbohydrate Polymer Technologies and Applications*, 100162.
33. Shokrollahi yancheshmeh, B., **Hesarinejad**, M., Zamani, Z., Yousofi, N., Abdolshahi, A., Jebelli, A. (2021). Evaluation the physical properties of *Vicia Villosa* seed and Study the effect of defatting and pH on the physicochemical and functional properties of its flour. *Iranian Food Science and Technology Research Journal*, 17(4), 543-557.
34. **Hesarinejad**, M., Arefkhani, A., Rafe, A., Javidi, F., Sadeghian, A. (2021). Investigating the qualitative, textural and sensory characteristics of low fat Iranian white cheese containing a mixture of basil seed gum with xanthan or guar. *Iranian Food Science and Technology Research Journal*, 17(4), 583-593.
35. Rezaiyan Attar, F., Sedaghat, N., Pasban, A., Yeganehzad, S., & **Hesarinejad**, M. A. (2021). Modeling the respiration rate of chitosan coated fresh in-hull pistachios (*Pistacia vera* L. cv. Badami) for modified atmosphere packaging design. *Journal of Food Measurement and Characterization*, 1-13.

36. Mousavi, B., Ghaderi, S., **Hesarinejad**, M. A., & Pourmahmoudi, A. (2021). Effect of varying levels of acorn flour on antioxidant, staling and sensory properties of Iranian toast. *International Journal of Food Studies*, 10(2).

PATENTS

1. **Russia (RU2753975C1)**: Semi-finished confectionery product based on hybrid gel
2. **Iran**: Instant fermented oak powder formulation
3. **Iran**: Hydrogel to improve the cheese-making efficiency of a mixture containing tragacanth derived from tragacanth exudates and xanthan gum
4. **Iran**: Toast bread formulation based on de-tannin oak flour
5. **Iran**: Production of functional snacks containing grass pea flour
6. **Iran**: Optimization of oak coffee powder formulation

PARTICIPATING IN INTERNATIONAL SCIENTIFIC CONGRESSES BY ORAL LECTURERS OR POSTERS:

7. Khosrowshahi, S., **Hesarinejad**, M.A. 2017. The effect of *Prunus cerasus* gum exudates addition on physic-chemical, rheological and sensory properties of yogurt. *AERC2017 and the 26th Nordic Rheology Conference*, Copenhagen, Denmark
8. Caruggi, N., Lucisano, M., Hailu Feyissa, A., Rahimi Yazdi, S., **Hesarinejad**, M.A., Mohammadifar, M.A. 2017. Effect of ohmic heating treatment on rheological and textural properties of acid milk gels. *AERC2017 and the 26th Nordic Rheology Conference*, Copenhagen, Denmark
9. **Hesarinejad**, M.A., Koocheki, A., Razavi, S.M.A., Mohammadifar, M.A. 2017. Fabrication and characterization of gels with optimum stiffness and syneresis from *Lathyrus sativa* protein isolate. *AERC2017 and the 26th Nordic Rheology Conference*, Copenhagen, Denmark
10. Rezagholi, F., & **Hesarinejad**, M. A. 2017. Integration of fuzzy logic and computer vision in intelligent quality control of celiac-friendly products. *9th International Conference on Theory and Application of Soft Computing, Computing with Words and Perception*. Budapest, Hungary.
11. Kutsenkova, V. S., Utesheva, M. S., Nepovinnykh, N. V., Baratian, Z., **Hesarinejad**, M. A., Faezian, A., & Yeganehzad, S. (2021). Development of sugar-free chocolate product formulation based on an edible hybrid gel. In *Технологии и продукты здорового питания* (pp. 383-384).
12. Shahraki, F., Hoseinzadeh, A., **Hesarinejad**, M.A. 2013. Effect of blanching-hot air drying combination process on physicochemical properties of dried Persimmon slices (*Diospyros kaki* L.). *1st International e-Conference on Novel Food Processing*, Mashhad, Iran.
13. Tavakoli Lahijani, A., Shokrolahi Yancheshmeh, B., **Hesarinejad**, M.A., Mohebbi, M. 2013. Mathematical Modeling of Oven Drying kinetics and Study on Effective Moisture Diffusivity of *Spirulina platensis* Biomass. *1st International e-Conference on Novel Food Processing*, Mashhad, Iran.
14. Shahraki, F., Hadad-khodaparast, M.H., **Hesarinejad**, M.A., Mortazavi, S.A., Milani, E., Hoseinzadeh, A. 2013. The quality and purity of the proteins extracted from the *Lathyrus sativus* seeds and optimization by the response surface methodology (RSM). *1st International e-Conference on Novel Food Processing*, Mashhad, Iran.