

In the Name of God

## Curriculum Vita



### Personal Information

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Name: Hassan  
Family Name: Ahmadi Gavlighi  
Date of Birth: 1978  
Department: Food Science and Technology  
Address: Faculty of Agriculture, Tarbiat Modares University, P. O. Box 14115-336, Tehran, Iran  
Telephone: + 98 21 48292313  
Fax: + 98 21 48292313  
E-mail address: [Ahmadi\\_ha@modares.ac.ir](mailto:Ahmadi_ha@modares.ac.ir) OR [Ahmadi.ha@gmail.com](mailto:Ahmadi.ha@gmail.com)

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### Education

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B.Sc, Food Science and Technology, Urmia University, Iran, 2000

M.Sc, Food Technology , Tarbiat Modares University, Iran, 2002

PhD, Food Technology, Technical University of Denmark(DTU), Denmark, 2012

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### Memberships

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Iranian Food Science & Technology Society

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### Referee of Scientific National/International Journals

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Iranian Journal of Food Science & Technology  
Applied Biochemistry and Biotechnology  
Iranian Journal of Biotechnology  
Starch  
Food Research International  
Journal of Food Science and Technology  
LWT-Food Science and Technology  
Journal of Food Chemistry

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### Research Interests

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- 1- Production of Functional Foods from Enzyme Technology
  - 2- Application of Functional Foods in Meat products
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## Research Publications

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- [1] Tavakoli, A., Sahari, M. A., Barzegar, M., **Ahmadi Gavlighi, H.**, Marzocchi, S., Marziali, S., and Caboni, M. F. (2022) The effect of refining process on the volatile compounds, oxidation stability and fatty acids profile of soybean oil using an electrostatic field, *Journal of Food Processing and Preservation* 46.
- [2] Sharifi, A., Hamidi-Esfahani, Z., **Ahmadi Gavlighi, H.**, and Saberian, H. (2022) Assisted ohmic heating extraction of pectin from pomegranate peel, *Chemical Engineering and Processing - Process Intensification* 172.
- [3] Rahimi, R., **Ahmadi Gavlighi, H.**, Amini Sarteshnizi, R., Barzegar, M., and Udenigwe, C. C. (2022) In vitro antioxidant activity and antidiabetic effect of fractionated potato protein hydrolysate via ultrafiltration and adsorption chromatography, *LWT* 154.
- [4] Maassoumi, N., Ghanati, F., Zare-Maivan, H., and **Gavlighi, H. A.** (2022) Metabolic changes network in selenium-treated Astragalus cells derived by glutathione as a core component, *Plant Cell, Tissue and Organ Culture*.
- [5] Zoghi, A., Vedadi, S., Esfahani, Z. H., **Gavlighi, H. A.**, and Khosravi-Darani, K. (2021) A review on pectin extraction methods using lignocellulosic wastes, *Biomass Conversion and Biorefinery*.
- [6] Sardabi, F., Azizi, M. H., **Gavlighi, H. A.**, and Rashidinejad, A. (2021) The effect of Moringa peregrina seed husk on the in vitro starch digestibility, microstructure, and quality of white wheat bread, *LWT* 136.
- [7] Karimi, A., **Ahmadi Gavlighi, H.**, Amini Sarteshnizi, R., and Udenigwe, C. C. (2021) Effect of maize germ protein hydrolysate addition on digestion, in vitro antioxidant activity and quality characteristics of bread, *Journal of Cereal Science* 97.
- [8] Jalali-Jivan, M., Fathi-Achachlouei, B., **Ahmadi-Gavlighi, H.**, and Jafari, S. M. (2021) Improving the extraction efficiency and stability of  $\beta$ -carotene from carrot by enzyme-assisted green nanoemulsification, *Innovative Food Science and Emerging Technologies* 74.
- [9] Gheshlaghi, S. P., Khaledabad, M. A., Nikoo, M., Regenstein, J. M., and **Gavlighi, H. A.** (2021) Impact of sturgeon gelatin hydrolysates (SGH) on physicochemical and microbiological properties of fat-free set-type yogurt, *LWT* 148.
- [10] Ghandehari Yazdi, A. P., Barzegar, M., Sahari, M. A., and **Gavlighi, H. A.** (2021) Encapsulation of pistachio green hull phenolic compounds by spray drying, *Journal of Agricultural Science and Technology* 23, 51-64.
- [11] Ghaderi-Ghahfarokhi, M., Yousefvand, A., **Ahmadi Gavlighi, H.**, and Zarei, M. (2021) The effect of hydrolysed tragacanth gum and inulin on the probiotic viability and

- quality characteristics of low-fat yoghurt, *International Journal of Dairy Technology* 74, 161-169.
- [12] Delfanian, M., Sahari, M. A., Barzegar, M., and **Ahmadi Gavlighi, H.** (2021) Effect of Steric Structure on the Mechanism of Antioxidant Activity of Alkyl Gallates in Soybean Oil Triacylglycerols—A Kinetic Approach, *European Journal of Lipid Science and Technology* 123.
- [13] Delfanian, M., Sahari, M. A., Barzegar, M., and **Ahmadi Gavlighi, H.** (2021) Structure–antioxidant activity relationships of gallic acid and phloroglucinol, *Journal of Food Measurement and Characterization* 15, 5036-5046.
- [14] Amini Sarteshnizi, R., Sahari, M. A., **Ahmadi Gavlighi, H.**, Regenstein, J. M., Nikoo, M., and Udenigwe, C. C. (2021) Influence of fish protein hydrolysate-pistachio green hull extract interactions on antioxidant activity and inhibition of  $\alpha$ -glucosidase,  $\alpha$ -amylase, and DPP-IV enzymes, *LWT* 142.
- [15] Alavi, M., Tabarsa, M., and **Ahmadi Gavlighi, H.** (2021) Antioxidant activity,  $\alpha$ -amylase and  $\alpha$ -glucosidase inhibition properties of sulfated-polysaccharides purified from freshwater plant *Myriophyllum spicatum* L., *Journal of Food Science and Technology (Iran)* 18, 81-90.
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- [17] Noorolahi, Z., Sahari, M. A., Barzegar, M., and **Ahmadi Gavlighi, H.** (2020) Tannin fraction of pistachio green hull extract with pancreatic lipase inhibitory and antioxidant activity, *Journal of Food Biochemistry* 44.
- [18] Mirab, B., **Ahmadi Gavlighi, H.**, Amini Sarteshnizi, R., Azizi, M. H., and C. Udenigwe, C. (2020) Production of low glycemic potential sponge cake by pomegranate peel extract (PPE) as natural enriched polyphenol extract: Textural, color and consumer acceptability, *LWT* 134.
- [19] Lashgari, S. S., Noorolahi, Z., Sahari, M. A., and **Ahmadi Gavlighi, H.** (2020) Improvement of oxidative stability and textural properties of fermented sausage via addition of pistachio hull extract, *Food Science and Nutrition* 8, 2920-2928.
- [20] Keshavarzi, M., Najafi, G., **Ahmadi Gavlighi, H.**, Seyfi, P., and Ghomi, H. (2020) Enhancement of polyphenolic content extraction rate with maximal antioxidant activity from green tea leaves by cold plasma, *Journal of Food Science* 85, 3415-3422.
- [21] Karimi, N., Nikoo, M., **Ahmadi Gavlighi, H.**, Piri Gheshlaghi, S., Regenstein, J. M., and Xu, X. (2020) Effect of pacific white shrimp (*Litopenaeus vannamei*) protein

- hydrolysates (SPH) and (-)-epigallocatechin gallate (EGCG) on sourdough and bread quality, *LWT* 131.
- [22] Karimi, A., Azizi, M. H., and **Ahmadi Gavlighi, H.** (2020) Frationation of hydrolysate from corn germ protein by ultrafiltration: In vitro antidiabetic and antioxidant activity, *Food Science and Nutrition* 8, 2395-2405.
- [23] Karimi, A., Azizi, M. H., and **Ahmadi Gavlighi, H.** (2020) Erratum to: Frationation of hydrolysate from corn germ protein by ultrafiltration: In vitro antidiabetic and antioxidant activity (Food Science & Nutrition, (2020), 8, 5, (2395-2405), 10.1002/fsn3.1529), *Food Science and Nutrition* 8, 5192.
- [24] Ghandehari Yazdi, A. P., Barzegar, M., **Ahmadi Gavlighi, H.**, Sahari, M. A., and Mohammadian, A. H. (2020) Physicochemical properties and organoleptic aspects of ice cream enriched with microencapsulated pistachio peel extract, *International Journal of Dairy Technology* 73, 570-577.
- [25] Ghaderi-Ghahfarokhi, M., Yousefvand, A., **Ahmadi Gavlighi, H.**, Zarei, M., and Farhangnia, P. (2020) Developing novel synbiotic low-fat yogurt with fucoxylgalacturonan from tragacanth gum: Investigation of quality parameters and *Lactobacillus casei* survival, *Food Science and Nutrition* 8, 4491-4504.
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- [27] Alavi, M., Tabarsa, M., You, S., and **Gavlighi, H. A.** (2020) Structural characteristics, molecular properties and immunostimulatory effects of sulfated polysaccharide from freshwater *Myriophyllum spicatum* L, *International Journal of Biological Macromolecules* 153, 951-961.
- [28] Abbasi, M. A., Ghazanfari, S., Sharifi, S. D., and **Ahmadi Gavlighi, H.** (2020) Effect of rosemary essential oil as nitrite substitute on quality of sausage produced using chicken fed by thymus essential oil and rapeseed oil, *Journal of Food Science and Technology*.
- [29] Abbasi, M. A., Ghazanfari, S., Sharifi, S. D., and **Ahmadi Gavlighi, H.** (2020) Influence of dietary plant fats and antioxidant supplementations on performance, apparent metabolizable energy and protein digestibility, lipid oxidation and fatty acid composition of meat in broiler chicken, *Veterinary Medicine and Science* 6, 54-68.
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- concentrated pistachio hull extract, *Food Chemistry* 277, 398-406.
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- [34] Nikoo, M., Benjakul, S., Yasemi, M., **Ahmadi Gavlighi, H.**, and Xu, X. (2019) Hydrolysates from rainbow trout (*Oncorhynchus mykiss*) processing by-product with different pretreatments: Antioxidant activity and their effect on lipid and protein oxidation of raw fish emulsion, *LWT* 108, 120-128.
- [35] Nikoo, M., Benjakul, S., **Ahmadi Gavlighi, H.**, Xu, X., and Regenstein, J. M. (2019) Hydrolysates from rainbow trout (*Oncorhynchus mykiss*) processing by-products: Properties when added to fish mince with different freeze-thaw cycles, *Food Bioscience* 30.
- [36] Kamali, E., Sahari, M. A., Barzegar, M., and **Ahmadi Gavlighi, H.** (2019) Novel oleogel formulation based on amaranth oil: Physicochemical characterization, *Food Science and Nutrition* 7, 1986-1996.
- [37] Gharaie, Z., Azizi, M. H., Barzegar, M., and **Ahmadi Gavlighi, H.** (2019) Gum tragacanth oil/gels as an alternative to shortening in cookies: Rheological, chemical and textural properties, *LWT* 105, 265-271.
- [38] Ghandahari Yazdi, A. P., Barzegar, M., Sahari, M. A., and **Ahmadi Gavlighi, H.** (2019) Optimization of the enzyme-assisted aqueous extraction of phenolic compounds from pistachio green hull, *Food Science and Nutrition* 7, 356-366.
- [39] Bitalebi, S., Nikoo, M., Rahmanifarah, K., Noori, F., and **Ahmadi Gavlighi, H.** (2019) Effect of apple peel extract as natural antioxidant on lipid and protein oxidation of rainbow trout (*Oncorhynchus mykiss*) mince, *International Aquatic Research* 11, 135-146.
- [40] Aliyari, P., Kazaj, F. B., Barzegar, M., and **Gavlighi, H. A.** (2019) Production of functional sausage using pomegranate peel and pistachio green hull extracts as natural preservatives, *Journal of Agricultural Science and Technology* 22, 159-172.
- [41] Aghagholizadeh, R., Kadivar, M., Nazari, M., **Ahmadi, H.**, and Azizi, M. H. (2019) Capability of solvent retention capacity to quality of flat bread in three wheat cultivars, *Journal of Food Science and Technology* 56, 775-782.
- [42] Abbasi, M. A., Ghazanfari, S., Sharifi, S. D., and **Gavlighi, H. A.** (2019) The effect of

- rosemary, thymus and satureja essential oils, Vitamin E and vegetable oils on immune system and intestinal microflora of broiler chicken, *Journal of Veterinary Research* 74, 153-166.
- [43] Abbasi, E., Amini Sarteshnizi, R., **Ahmadi Gavlighi, H.**, Nikoo, M., Azizi, M. H., and Sadeghinejad, N. (2019) Effect of partial replacement of fat with added water and tragacanth gum (*Astragalus gossypinus* and *Astragalus compactus*) on the physicochemical, texture, oxidative stability, and sensory property of reduced fat emulsion type sausage, *Meat Science* 147, 135-143.
- [44] Seifzadeh, N., Sahari, M. A., Barzegar, M., and **Ahmadi Gavlighi, H.** (2018) Concentration of pistachio hull extract antioxidants using membrane separation and reduction of membrane fouling during process, *Food Science and Nutrition* 6, 1741-1750.
- [45] Saberian, H., Hamidi-Esfahani, Z., **Ahmadi Gavlighi, H.**, Banakar, A., and Barzegar, M. (2018) The potential of ohmic heating for pectin extraction from orange waste, *Journal of Food Processing and Preservation* 42.
- [46] Nikoo, M., Regenstein, J. M., and **Ahmadi Gavlighi, H.** (2018) Antioxidant and Antimicrobial Activities of (-)-Epigallocatechin-3-gallate (EGCG) and its Potential to Preserve the Quality and Safety of Foods, *Comprehensive Reviews in Food Science and Food Safety* 17, 732-753.
- [47] Nemati, F., Ghanati, F., **Gavlighi, H. A.**, and Sharifi, M. (2018) Fructan dynamics and antioxidant capacity of 4-day-old seedlings of wheat (*Triticum aestivum*) cultivars during drought stress and recovery, *Functional Plant Biology* 45, 1000-1008.
- [48] Nemati, F., Ghanati, F., **Ahmadi Gavlighi, H.**, and Sharifi, M. (2018) Comparison of sucrose metabolism in wheat seedlings during drought stress and subsequent recovery, *Biologia Plantarum* 62, 595-599.
- [49] Lalegani, S., **Ahmadi Gavlighi, H.**, Azizi, M. H., and Amini Sarteshnizi, R. (2018) Inhibitory activity of phenolic-rich pistachio green hull extract-enriched pasta on key type 2 diabetes relevant enzymes and glycemic index, *Food Research International* 105, 94-101.
- [50] Fattahifar, E., Barzegar, M., **Ahmadi Gavlighi, H.**, and Sahari, M. A. (2018) Evaluation of the inhibitory effect of pistachio (*Pistacia vera* L.) green hull aqueous extract on mushroom tyrosinase activity and its application as a button mushroom postharvest anti-browning agent, *Postharvest Biology and Technology* 145, 157-165.
- [51] **Ahmadi Gavlighi, H.**, Tabarsa, M., You, S., Surayot, U., and Ghaderi-Ghahfarokhi, M. (2018) Extraction, characterization and immunomodulatory property of pectic polysaccharide from pomegranate peels: Enzymatic vs conventional approach,

- [52] Sarfaraz, A., Azizi, M. H., **Ahmadi Gavlighi, H.**, and Barzegar, M. (2017) Physicochemical and functional characterization of wheat milling co-products: Fine grinding to achieve high fiber antioxidant-rich fractions, *Journal of Cereal Science* 77, 228-234.
- [53] Saberian, H., Hamidi-Esfahani, Z., **Ahmadi Gavlighi, H.**, and Barzegar, M. (2017) Optimization of pectin extraction from orange juice waste assisted by ohmic heating, *Chemical Engineering and Processing: Process Intensification* 117, 154-161.
- [54] Kordjazi, M., Shabanpour, B., Zabihi, E., Faramarzi, M. A., **Ahmadi Gavlighi, H.**, Fegghi, S. M. A., and Hosseini, S. A. (2017) Investigation of effects of fucoidan polysaccharides extracted from two species of *Padina* on the wound-healing process in the rat, *Turkish Journal of Veterinary and Animal Sciences* 41, 106-117.
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- [57] Alnajjar, N., Ghanati, F., Behmanesh, M., and **Gavlighi, H. A.** (2017) Fine quantitation of novel trace taxans in suspension-cultured *Corylus avellana* L.: Cells by photo diode array HPLC technique, *Iranian Journal of Plant Physiology* 7, 1963-1969.
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### **Book Chapters**

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- [1] Zaidel, D. N. A., **Gavligli, H. A.**, Khairuddin, N., Zainol, N., Hashim, Z., Mohammad, N. A., and Lazim, N. A. M. Functional Properties and Potential Application of Biosurfactants as a Natural Ingredient in the Food Industry, In *Microbial Surfactants*, pp 98-132, CRC Press.
- [2] Nikoo, M., Xu, X., and **Gavligli, H. A.** (2016) Seafood Waste-Derived Peptides: Their Antioxidant Activity and Potential as Alternative Preservatives in Fish Products, In *Protein Byproducts: Transformation from Environmental Burden Into Value-Added Products*, pp 315-332.
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### **Patent**

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ENZYMATIC PRODUCTION OF POLYSACCHARIDES FROM GUM TRAGACANTH  
MIKKELSEN, Jørn Dalgaard; (DK), **GAVLIGLI, Hassan Ahmadi**; (IR), MICHALAK, Malwina; (DK),  
MEYER, Anne S.; (DK), ALE, Marcel Tutor; (DK); (WO/2014/170498), **Publication**  
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