SOLEIMAN ABBASI

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PROFISSINAL EXPERIENCE

- **Professor,** Tarbiat Modares University, Tehran, Iran, 2015–continues
- **Associate Professor,** Tarbiat Modares University, Tehran, Iran, 2009–2015
- **Visiting Professor,** University of Manitoba, Winnipeg, Canada, 2014–2015
- **Assistant Professor**, Tarbiat Modares University, Tehran, Iran, 2004–2008
- **Teaching Assistant**, Leeds University, Leeds, UK, 2000–2003
- **Quality Control Manager**, Pegasus Food, Tabriz, Iran, 1998–1999
- **Lecturer & Researcher**, NNFTRI, Tehran, Iran, 1994–1998

AREAS OF INTREST

- Functional foods, bioactive ingredients and nutraceuticals
- Isolation and characterization of bioactive compounds from by-products
- Nanoencapsulation and nanoemulsification (microemulsion technique)
- Chemistry and interaction of proteins, polysaccharides and lipids
- Thermal and non-thermal food processing techniques
- Development of health promoting food products

EDUCATION

- Ph.D in Food Science, University of Leeds (Leeds, UK), 1999–2003
- MSc. in Food Science & Technology, NNFTRI, Tehran, Iran, 1992–1994
- BSc. in Nutritional Sciences, NNFTRI, Tehran, Iran, 1987–1991

MEMBERSHIP IN SCIENTIFIC SOCIETIES

- Canadian Institute of Food Science and Technology (CIFST)
- Iranian Food Science & Technology Association (IFSTA)
- Member of National Scientific Board of Food Science & Technology (Ministry of Health, Iran)
- Iran Medical Council

PEER REVIEWED PUBLICATIONS

- **Nejatian, M., and Abbasi, S., (2018).** Fabrication of concentrated triglyceride nanoemulsion and nanogel using ultrasonication. ***Food Hydrocolloids,*** **(submitted).**

- **Rasouli, M., Abbasi, S., and Azarikia, F. (2018).** Effect of sodium hexametaphosphate on heat stability of protein–hydrocolloid systems. ***Food Hydrocolloids*, (submitted).**
- **Jalali Jivan, M., and Abbasi, S. (2018).** Lutein extraction using microemulsion technique: effect of ultrasound pretreatment. ***Food Chemistry*, (submitted).**
- **Jalali Jivan, M., and Abbasi, S. (2018).** Lutein extraction from spinach: alkali optimization. ***Journal of Food Compositon and Analysis*, (submitted).**
- **Abbasi, S. and Scanlon, M.G. (2018).** Nanostructural characterization of orange peel essential oil microemulsions using ultrasonic resonance technology. ***Journal of Agricultural and Food Chemistry,*** (in preparation).
- **Perven, S., Scanlon, M.G. and Abbasi, S. (2018).** Characterization of bovine serum albumin–potassium halides interaction using ultrasonic resonator technology. ***Journal of Protein,*** (in preparation).
- **Dabestani, M., Kadkhodaee, R., Phillips, O.G., and Abbasi, S. (2018).** Persian gum: A comprehensive review on its physicochemical and functional properties. ***Food Hydrocolloids, doi.org/10.1016/j.foodhyd.2017.06.006***
- **Radi, M., and Abbasi, S. (2018).** Optimization of novel oil extraction technique from canola seeds: lecithin-based microemulsion. ***European Journal of Lipid Science and Technology,* DOI: 10.1002/ejlt.201700267**
- **Azarikia, F., Abbasi, S., Scanlon, M.G., and McClements, D.J. (2018).** Emulsion stability enhancement against environmental stresses using whey protein–tragacanthin complex: Comparison of layer-by-layer and mixing methods. ***Journal International Journal of Food Properties*, doi.org/10.1080/10942912.2017.1362651.**
- **Teimouri, S., Abbasi, S. and Scanlon, M.G. (2018).** Stabilisation mechanism of various inulins and hydrocolloids: Milk–sour cherry juice mixture. ***International Journal of Dairy Technology*, 71:** 208–215.
- **Abbasi, S. and Amiri Rigi, A. (2017).** Microemulsions as Nano-Carriers for Nutraceuticals: Current Trends and the Future Outlook. ***EC Nutrition*, 12: 46-50.**
- **Amiri-Rigi, A., and Abbasi, S. (2017).** Stability assessment of lycopene microemulsion prepared using tomato industrial waste against various processing conditions. ***Journal of the Science of Food and Agriculture*, 97:** 4922–4928.
- **Abbasi, S. (2017).** Challenges towards characterization and application of a novel hydrocolloid: Persian gum. ***Current Opinion in Colloid & Interface Science,* 28, 37–45.**
- **Abbasi, S. (2017).** Persian gum: a novel natural hydrocolloid. ***Nutrition and Food Sciences Research,* 4: 1–2.**
- **Samari-Khalaj, M. and Abbasi, S. (2017).** Solubilisation of Persian gum: chemical modification using acrylamide. ***International Journal of Biological Macromolecules,* 101, 187–195**.
- **Ghaderi, A. and Abbasi, S. (2017).** Yoghurt Powder Production Using Microwave–Vacuum Drier: Drying Kinetics, Mathematical Modeling, And Characteristics**. *SDRP Journal of Food Science & Technology*, 2:**
- **Harouni, A. and Abbasi, S. (2017).** Designing A Microwave-Assisted Low Pressure Cold Plasma (LPCP) Generator: A Case Study On Salmonella Decontamination. ***SDRP Journal of Food Science & Technology, 2:***
- **Behbahani, M.S. and Abbasi, S. (2017).** Stabilization of flixweed seeds (*Descurainia sophia* L.) drink: Persian refreshing drink. ***Food Bioscience,*** http://dx.doi.org/10.1016/j.fbio.2017.03.001
- **Mohammadi, S., Abbasi, S. and Scanlon, M.G. (2016).** Development of emulsifying property in Persian gum using octenyl succinic anhydride (OSA). ***International Biological Macromolecules,* 89: 396–405**
- **Abbasi, S. and Radi, M. (2016).** Food grade microemulsion systems: canola oil/lecithin:n-propanol/water. ***Food Chemistry,* 194: 972–979.**
- **Azarikia, F. and Abbasi, S. (2016).** Mechanism of soluble complex formation of milk proteins with native gums (tragacanth and Persian gum). ***Food Hydrocolloids,* 59: 35–44.**
- **Azarikia, F. and Abbasi, S. (2016).** Efficacy of whey protein–tragacanth on stabilization of oil-in-water emulsions: Comparison of mixed and layer by layer methods. ***Food Hydrocolloids,* 59: 26–34.**
- **Teimouri, S., Abbasi, S. and Sheikh, N. (2016).** Effects of gamma irradiation on some physicochemical and rheological properties of Persian gum and gum tragacanth**. *Food Hydrocolloids,* 59: 9–16.**
- **Amiri-Rigi, A., Abbasi, S. and Scanlon, M.G. (2016).** Enhanced lycopene extraction from tomato industrial waste using microemulsion technique: Optimization of enzymatic and ultrasound pre-treatments. ***Innovative Food Science & Emerging Technologies,* 35, 160–167.**

- **Amiri-Rigi, A. and Abbasi, S. (2016).** Microemulsion-based lycopene extraction: Effect of surfactants, cosurfactants and pretreatments. ***Food Chemistry,* 197: 1002–1009.**
- **Azarikia, F., Wu, B., Abbasi, S. and McClements, D.G. (2015).** Stabilization of biopolymer microgels formed by electrostatic complexation: Influence of enzyme (laccase) cross-linking on pH, thermal, and mechanical stability. ***Food Research International*, 78: 18–26.**
- **Mirmajidi-Hashtjin, A. and Abbasi, S. (2015).** Optimization of ultrasonic emulsification conditions for the production of orange peel essential oil nanoemulsions. ***Journal of Food Science and Technology,* 52: 2679–2689.**
- **Mirmajidi-Hashtjin, A. and Abbasi, S. (2015).** Nano-emulsification of orange peel essential oil using sonication and native gums. ***Food Hydrocolloids,* 44: 40–48.**
- **Abbasi, S. and Saeedabadian, A.** (2015). Influences of lactose hydrolysis of milk and sugar reduction on some physical properties of ice cream. ***Journal of Food Science and Technology*, 52: 367–374.**
- **Abbastabar, B., Azizi, M.H., Adnani, A. and Abbasi, S. (2015).** Determining and modeling rheological characteristics of quince seed gum. ***Food Hydrocolloids,* 43: 259–264.**
- **Farahani G., Ezzatpanah H. and Abbasi S. (2014).** Characterization of Siahmazgi cheese, an Iranian ewe's milk variety: Assessment of physico-chemical, textural and rheological specifications during ripening. ***LWT - Food Science and Technology*, 58: 335–342.**
- **Ghasemi, S. and Abbasi, S. (2014).** Formation of natural casein micelle nanocapsule by means of pH changes and ultrasound. ***Food Hydrocolloids,* 42: 42–47.**
- **Alighourchi, H., Barzegar, M., Sahari, M.A. and Abbasi, S. (2014**). The effects of sonication and gamma irradiation on the inactivation of *Escherichia coli* and *Saccharomyces cerevisiae* in pomegranate juice. ***Irannian Journal of Microbiology*, 6: 51–58**.
- **Alighourchi, H., Barzegar, M., Sahari, M.A. and Abbasi, S. (2013).** Effect of sonication on anthocyanins, total phenolic content, and antioxidant capacity of pomegranate juices. ***International Food Research Journal*, 20: 1703–1709.**
- **Radi, M., Abbasi, S., Hamidi, Z. and Azizi, MH. (2013).** Development of a new method for extraction of canola oil using lecithin based microemulsion systems**.** ***Agro FOOD Industry Hi Tech*, 24 (5): 70–73.**
- **Hossenzadeh Samani, B., Khoshtagaza, M.H., Minaei, S. and Abbasi, S. (2013).** Effect of ultrasonic waves on pasteurization of sour cherry juice. ***International Journal of Biosciences,* 3: 193–200.**
- **Abbasi S. and Mohammadi S. (2013).** Stabilization of milk–orange juice mixture using Persian gum: Efficiency and mechanism. ***Food Bioscience, 2: 53–60.***
- **Berenji Ardestani S., Sahari M.A., Barzgar M. Abbasi S. (2013).** Some physicochemical properties of Iranian native barberry fruits (abi and poloei): *Berberis integerrima* and *Berberis vulgaris.* ***Journal of Food and Pharmaceutical Sciences, 1: 67–74.***
- **Motavali A., Najafi Gh. H., Abbasi S., Minaei S. and Ghaderi A. (2013).** Microwave–vacuum drying of sour cherry: comparison of m. mathematical models and artificial neural networks. ***Journal of Food Science and Technology*, 50 : 714–722.**
- **Saberian H., Hamidi-Esfahani Z. and Abbasi S. (2013).** Effect of pasteurization and storage on bioactive components of Aloe vera gel. ***Nutrition & Food Science*, 43: 175–183.**
- **Amiri S., Abbasi S., Ezzatpanah H. and Hosseini E**. (2013). Nanocapsulation of orange peel oil using microemulsion technique. ***Agro FOOD Industry Hi Tech*, 24: 44–47.**
- **Badamchi, M., Hamidi-Esfahani, Z., Abbasi, S. (2013).** Comparison of phytase production by *Aspergillus ficuum* under submerged and solid state fermentation conditions. ***Focusing on Modern Food Industry (FMFI),* 2: 129–137.**
- **Mohammadizadeh, M., Hamidi-Esfahani, Z., Abbasi, S., Moradi, M. and Tanabandeh, F. (2012).** Isolation and identification of cellulolytic fungi from the soil and optimization of cellulolytic activities of *Aspergillus niger* MZM 98-a2. ***Current Topics in Biotechnology,* 7:71–7.**
- **Ghaderi A., Abbasi S., Motevali A. and Minaei S. (2012).** Comparison of mathematical models and artificial neural networks for prediction of drying kinetics of mushroom in microwave–vacuum drier. ***Chemical Industry and Chemical Engineering Quarterly,* 18 (2): 283–293.**
- **Nouri, M., Ezzatpanah, H., Abbasi, S., Aminafshar, M. and Behmadi, H. (2012).** Effect of partially hydrolyzed kappa-casein on physicochemical and sensory properties of heated milk. ***Journal of Dispersion Science and Technology*, 33: 1204–1209.**
- **Samadlouie H.R., Hamidi-Esfahani Z., Alavi S.M., Soltani-Najafabadi M., Sahari M.A. and Abbasi S. (2012).** Statistical approach to optimization of fermentative production of oil and arachidonic acid from *Mortierella alpine* CBS 754.68. ***African Journal of Microbiology Research,* 6: 1559–1567**
- **Nouri M., Ezzatpanah H. and Abbasi S. (2011).** Application of renneted skim milk as a fat mimetics in nonfat yoghurt. ***Food and Nutrition Sciences*, 2: 541–548.**

- **Abbasi, S. and Azari, S. (2011).** Efficiency of novel iron microencapsulation techniques: fortification of milk**.** ***International Journal of Food Science and Technology*****, 46: 1927–1933.**
- **Saremnezhad, S., Azizi, M.H., Barzgar, M., Abbasi, S., and Ahmadi, E. (2011).** Properties of a new edible film made of faba bean protein isolate. ***Journal of Agricultural Science and Technology*****, 13: 181–192.**
- **Raki-Salimi, K., Hamidi, Z. and Abbasi, S. (2011).** Statistical optimization of arachidonic acid production. ***Iranian Journal of Biotechnology*****, 9: 87–93.**
- **Dehghan-Shoar, Z., Hamidi, Z. and Abbasi, S. (2010**). Effect of temperature and modified atmosphere on quality preservation of Sayer date fruits. ***Journal of Food Processing and Preservation, 34: 323–334.***
- **Azarikia, F. and Abbasi, S. (2010).** On the stabilization mechanism of Doogh (Iranian yoghurt drink) by gum tragacanth. ***Food Hydrocolloids,*** **24: 358–363.**
- **Farzanmehr, H. and Abbasi, S. (2009).** Effects of inulin and bulking agents on some physicochemical, textural, and sensory properties of milk chocolate. ***Journal of Texture Studies,*** **40: 536–553.**
- **Abbasi, S. and Farzanmehr, H. (2009).** Optimization of formulation of prebiotic milk chocolate based on rheological properties**.** ***Food Technology and Biotechnology****,* **47: 396–403.**
- **Abbasi, S. and Azari, S. (2009).** Novel microwave–freeze drying of onion slices**.** ***International Journal of Food Science and Technology,*** **44: 974–979.**
- **Abbasi, S., Rahimi, S. and Azizi, M.H. (2009).** Influence of microwave-microencapsulated citric acid on some sensory properties of chewing gum. ***Journal of Microencapsulation***, **26: 90–96.**
- **Chizari, M., Jannat, S. and Abbasi, S. (2008).** Role of extension in developing dairy farmers Knowledge toward milk quality in Golpayegan township, Iran. ***American_Eurasian Journal of Agriculture and Environment.*** **3(3): 333–338.**
- **Alighourchi, H., Barzegar, M. and Abbasi, S. (2008).** Effect of gamma irradiation on the stability of anthocyanins and shelf-life of various pomegranate juices. ***Food Chemistry,*** **110: 1036–1040.**
- **Alighourchi, H., Barzegar, M. and Abbasi, S. (2008).** Anthocyanins characterization of 15 Iranian pomegranate (*Punica granatum* L.) varieties and their variation after cold storage and pasteurization. ***European Food Research and Technology A,*** **227: 881–887.**
- **Abbasi, S. and Rahimi, S. (2008).** Microwave-assisted encapsulation of citric acid using hydrocolloids**.** ***International Journal of Food Science and Technology,*** **43: 1226–1232.**
- **Abbasi, S. (2005).** Influence of acidification and surfactants on gelation of skimmed milk powder dispersions under high hydrostatic pressure**.** ***ICFPTE, 2: 660–668***.
- **Abbasi, S., Zandi, P. and Mirbagheri, E. (2005).** Quantitaion of limonin in Iranian orange juice concentrates using HPLC and spectrophotometric methods. ***European Food Research & Technology,*** **221: 202–207.**
- **Abbasi, S. and Dickinson, E. (2004).** Gelation of *i*-carrageenan and micellar casein mixtures under high hydrostatic pressure. ***Journal of Agricultural & Food Chemistry*****, 52, 1705–1714.**
- **Abbasi, S. and Dickinson, E. (2003).** Interaction of micellar casein and *i*-carrageenan: influence of high pressure. ***High Pressure Research*****, 23, 71–75.**
- **Fallahi, E., Kimiagar, M., Valaei, N. and Abbasi, S. (2003).** Effect of fortified flour with ferrous sulfate and with Na_2EDTA on iron deficiency anemia and serum zinc. ***Journal of Food, Agriculture & Environment,*** **3–4, 69–71.**
- **Abbasi, S. and Dickinson, E. (2002).** Induced rheological changes to low methoxyl pectin *plus* micellar casein mixtures by high-pressure. ***Journal of Agricultural & Food Chemistry,*** **50, 3559–3565.**
- **Abbasi, S. and Dickinson, E. (2002).** Influence of high-pressure treatment on gelation of skim milk powder + low methoxyl pectin dispersions. ***High Pressure Research,*** **22, 643–647.**
- **Abbasi, S. & Dickinson, E. (2001).** Influence of sugars on high-pressure induced gelation of skim milk dispersions. ***Food Hydrocolloids*****, 15, 315–319.**

PEER REVIEWED PUBLICATIONS (IN FARSI)

Since 1997, over 80 research papers in peer reviewed research journals in Farsi language have been published and full list would be available per request.

CONFERENCE PRESENTATIONS

Over 120 presentations as invited speaker, key speaker, oral and poster in international and Iranian scientific congresses in various fields have been delivered. The full list would be available per request.

BOOK CHAPTERS EDITED

- **Abbasi, S. (2018). Challenges towards stabilization of dairy based drinks.** Emerging Trends and Developments in Beverage Science (Multi Volume SET I-XX) vol 9 (milk based beverages), Elsevier.
- **Abbasi, S. (2018). Persian gum** (*Amygdalus scoparia* Spach). In S.M.A.Razavi (ed). *Emerging Natural Hydrocolloids: Rheology and Functions*, Wiley (UK).
- **Abbasi, S., and Scanlon, M.G. (2016). Nano-structural characterization of food grade microemulsions: ultrasonic resonator technology.** In Alexandru Mihai GRUMEZESCU (Ed.). *Nanotechnology in Food Industry (Multi Volume SET I-X), Vol 3 (emulsions*), Elsevier.
- **Abbasi, S., and Rahimi, S. (2015). Persian gum.** In Munmaya Mishra (Ed.), *Encyclopedia of Biomedical Polymers and Polymeric Biomaterials*. USA, New York : Taylor and Francis Group LLC.

PATENTS

- **Abbasi, S. and Ghasemi, S. (2015).** Method for nanoencapsulation of hydrophobic compounds and compositions thereof, **US patents, Pub No: 2015/0147367 A1.**
- **Abbasi, S. and Harouni, A. (2015).** Microwave assisted low pressure cold plasma (LPCP). **Iranian Intellectual Properties Patent No: Under review.**
- **Ghasemi, S. and Abbasi, S. (2013).** Production of casein micelle nanocapsule containing hydrophobic bioactive compounds. **Iranian Intellectual Properties Patent No: 80420.**
- **Abbasi, S. and Behbahani, M. S. (2013).** Stabilization of Iranian refreshing drink (Sharbat e Khakesheer) using hydrocolloids. **Iranian Intellectual Properties Patent No: 80117.**
- **Abbasi, S. and Esmaeilzadeh Nasiri, M. (2012).** Instant yoghurt powder production using microwave-vacuum drier: Application of hydrocolloids. **Iranian Intellectual Properties Patent No: 74699.**
- **Abbasi, S. and Ghaderi, A.R. (2011).** Yoghurt powder production using microwave-vacuum drier. **Iranian Intellectual Properties Patent No: 68738.**
- **Abbasi, S. and Rahimi, S. (2006).** Microencapsulation using microwave. **Iranian Intellectual Properties Patent No: 40420.**
- **Abbasi, S. (2006).** Designing a microwave-vacuum drier. **Iranian Intellectual Properties Patent No: 48830.**

POSTGRADUATE STUDENTS SUPERVISED AND ADVISED

- Ph.D Students: 16
- MSc Students: 35

COURSES TAUGHT

- Food Processing
- Food Rheology
- Food Colloids
- Oil Science and Technology
- Dairy Science and Technology
- Fruit and Vegetable Processing Technology