



Bibi Marzieh Razavizadeh

Personal Information

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Education

- Ph.D., **Physical Chemistry**, January 2000, Tarbiat Modarres University, Tehran, Iran. The title of thesis is: "The study of Physico-chemical parameters in ionic/nonionic mixed surfactant systems"
- M.Sc., **Physical Chemistry**, September 1993, Tarbiat Modarres University, Tehran, Iran. The title of thesis is: "Construction of ISE to DOTAB and measurement of its physico-chemical parameters in aqueous, non aqueous, and mixed solvents"
- B. Sc., **Chemistry**, June 1988, Ferdowsi University, Mashhad, Iran

Employment

- March 2000-present, Iranian Research organization for science and technology (the name of my organization was changed to Khorasan research institute of food Science & Technology in the early of 2007) , Mashhad branch
- 1994_2000 Teaching Assistance of Chemistry, Imam Khomeini International University, Ghazvin, Iran
- April 2006-Desamber 2008, Head of Department of chemistry and Materials
- December 2008- May 2010, Research Deputy head of Institute
- April 2011- April 2013, Head of Department of Food chemistry

Research Interests

- Food Chemistry
- Colloidal systems (nano and micro emulsions and encapsulation)
- Food packaging
- Biophysic stress on the plants, microorganisms and foods

- **Formulation of Natural liquid soap with special properties (Director-Executo) (2000)**
- **Chemical analyses of types of Iranian Dates (Director-Executo) (2001)**
- **Study of applications of nanotechnology in pollution removal from water (Director-Executo) (2004)**
- **Nano photo catalyst Titania (TiO₂) synthesis in bench scale by sol-jell method (advisor) (2005)**
- **Pt/SnO₂ nano-catalyste Synthesis (advisor) (2005)**
- **Preparation of Nano-emulsion of ginger oil for carbonated drinking (Director-Executo) (2007)**
- **Increasing of photo catalytic activity of nano-titania by doping of hetropolyacids (advisor) (2007)**
- **Formation of Nano-emulsion of anthocyanin (Director-Executo) (2008)**
- **Extraction and micro-encapsulation of red-peper oleoresin (Director-Executo) (2008)**
- **Nano-particle flotation collectors (Visitor) – sabbatical project in Mc-Master University. (2011)**
- **Fabrication of Immune- sensor for the rapid detection of 2,3, 7,8-tetrachlorodibenzo-p-dioxin (TCDD). (Director-Executor) (2013)**
- **Study of antimicrobial properties of polyethylene films containing propolis produced by the extrusion and electro-spinning methods (Director-Executo) (2014)**
- **"Investigating and comparing the extraction of German chamomile essential oil by CO₂ supercritical fluid method" (advisor) (2014)**
- **An Analysis of the Content of Internal and External Researches on Halal Food (Director-Executo) (2013-2014)**
- **"Design and Evaluation of Nano- carrier lipids Containing Alpha-Tocopherol" (advisor) (2015)**
- **W/W emulsion systems,**
- **Immobilization of active compounds of Asafoetida (Ferulassa Feotida) on polyethylene polymer to fabricate antimicrobial packaging containers (director)**
- **(Coworker- 2ed director) (2015)**
- **Study and manufacture of optical sensor based on modified quantum dots**

- with molecular molded polymer for the detection and measurement of Fluor- Phenicol". (advisor) (2015-2020)
- A collection studies on [A Study on the Economic, Social, and Political Capacities of Halal Food/ Identifying research issues in the field of halal food/ Study of the formation, development and current status of Halal food brand] (director) (2018)
- Preparation of fortifide (functional) chocolat with Calcium, vitamin D3, and Omega 3, (Director-Executo), (2017-2018)
- Quantitative and qualitative study of secondary metabolites (effective compounds) of saffron stigma due to induction of ultrasonic waves on the corm (director) (2018-2020)
- **Current project (Director-Executo):** Investigation of the effect of acoustic waves and verbal expressions on inhibition of *Aspergillus niger* and *Botrytis cinerea* (March 6th, 2020- November 6th, 2022)
- **Investigation on the effect of ultrasound on reducing the contamination and physical properties of saffron corm, and determination of crocin content in the stigmas obtained by induction of ultrasound on corms (director-Executo) (Sept. 2021- June 2022)**
- Polysaccharide extract of Eremuruse root: identification and evaluation of its performance properties in food industry (Co-worker)

1. H. Gharibi; B. M. Razavizadeh; and A. A. Rafati, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 136 (1998), 123-132.
2. H. Gharibi; A. A. Rafati; A. fayzollahi; B. M. Razavizadeh; and M. A. Safarpour, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 145 (1998), 47-56.
3. H. Gharibi; B. M. Razavizadeh; and M. Hashemianzadeh, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 174 (2000), 375-386.
4. H. Gharibi; M. Hashemianzadeh; and B. M. Razavizadeh, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 196 (2002), 31-37.
5. B. M. Razavizadeh; M. Mousavi-Khoshdeld; H. Gharibi; R. Behjatmanesh-Ardakani; S. Javadian; and B. Sohrabi, *J. Colloid and Interface Science*, 276 (2004) 197-207.
6. S. A. Mortazavi, B. M. Razavizadeh, H. Karadhian; *J. of Food Technology & Nutrition*, 2 (2) (2005), 27-34 (in Persian).
7. A.A. Rafati, M. Etesami, B. M. Razavizadeh, *J. of Molecular Liquids*, 136 (2007

) 44-49.

8. Afshin Asadzadeh Shahir, Soheila Javadian, Bi Bi Marzieh Razavizadeh, and Hussein Gharibi, *The Journal of Physical Chemistry B* (2011) 115, 14435–14444.

9. Songtao Yang, Bi Bi Marzieh Razavizadeh, Robert Pelton, and Gerard Bruin, Nanoparticle Flotation Collectors- The Influence of Particle Softness, *ACS Appl. Mater. Interfaces* 2013, 5, 4836–4842.

10. B. M. Razavizadeh, S. S. Solooti, "Nanotechnology and its applications in cosmetics industry", *Journal of Health and Beauty Industry, Association of detergent*, (2004), Third Year, No. 13.

11. B. M. Razavizadeh, M. Hosseini Nezhad, "the toxicity of nanoparticles," *Nano World* (2009). 15, 39-48.

12- Seyedeh Belin Tavakoly Sany, Rosli Hashim, Majid Rezayi, Mohammad Azizur Rahman, Bi Bi Marzieh Razavizadeh, Ebrahim Abouzari-loff, David J. Karlen, (2015) Integrated ecological risk assessment of dioxin compounds, *Environ Sci Pollut Res*.

13- Seyedeh Belin Tavakoly Sany, Rosli Hashim, Aishah Salleh, Majid Rezayi, David J Karlen, Bi Bi Marzieh Razavizadeh, Ebrahim Abouzari-loff, (2015) Dioxin risk assessment: mechanisms of action and possible toxicity in human health, *Environ Sci Pollut Res*.

14- Mahbobeh Javidi, Mohammad Reza Housaindokht, Asma Verdian, Bibi Marzieh Razavizadeh, "Detection of chloramphenicol using a novel apta-sensing platform based on aptamer terminal-lock in milk samples" *Analytica Chimica Acta*, (2018), 1039, 116-123.

15- B. M. Razavizadeh (2019) Influence of immersion time and cationic latex nanoparticles concentration on flotation recovery, *Separation Science and Technology*, 54:7, 1204-1210, DOI: 10.1080/01496395.2018.1526193

16- Mousarreza Abroodi, Ahmad Bagheri, Bibi Marzieh Razavizadeh Investigation of surface tension and surface properties of alkanolamine–alcohol mixtures at T= 313.15 K and P= 90.6 kPa, *Journal of Molecular Liquids* 287 (2019) 110924.

17- Bibi Marzieh Razavizadeh, Raziieh Niazmand, Comparison of the Effects of Maceration and Ultrasound Extraction Methods on the Content of Phenolic Compounds of Propolis, The journal of Innovative Food Technologies (2019) 6(2) 293-304. DOI: <http://dx.doi.org/10.22104/JIFT.2019.3161.1766>

18- Bibi Marzieh Razavizadeh, Raziieh Niazmand, Somayeh Hajinezhad, Ehsan Akbari, Physicochemical and Antimicrobial Properties and Determination of Phenols and Flavonoids Content of Propolis from Bee Hives in Khorasan Razavi Province, (2020)

19- Bibi Marzieh Razavizadeh, Razieh Niazmand, Characterization of polyamide-6/propolis blended electrospun fibers, Heliyon 6 (2020) e04784.

20. S. Hajinezhad, B. M. Razavizadeh, R. Niazmand, Study of antimicrobial and physicochemical properties of LDPE/propolis extruded films, Polym. Bull. (2020) 77:4335-4353. <https://doi.org/10.1007/s00289-019-02965-y>

21- A. Faezian, B.M. Razavizadeh, Investigating the acoustic parameters for sounding saffron corms in terms greenhouse cultivation condition, Journal of Acoustical Engineering Society of Iran, Vol. 8, No. 1, (2020).

22- Mousarreza Abroodi, Ahmad Bagheri, and Bibi Marzieh Razavizadeh, Surface Tension of Binary and Ternary Systems Containing Monoethanolamine (MEA), Water and Alcohols (Methanol, Ethanol, and Isopropanol) at 303.15 K, J. Chem. Eng. Data (2020) 65, 6, 3173–3182. <https://dx.doi.org/10.1021/acs.jced.0c00192>

23- Somayeh Hajinezhad , Bibi Marzieh Razavizadeh , Razieh Niazmand & Ismael Ghasemi (2020) Antimicrobial, mechanical, and physicochemical properties of ethylene vinyl alcohol (EVOH) extruded films blended with propolis, International Journal of Food Properties, 23:1, 2020-2032, DOI: 10.1080/10942912.2020.1840388

24- Razieh Niazmand, Bibi Marzieh Razavizadeh, and Farzaneh Sabbagh, Low-Density Polyethylene Films Carrying ferula asafetida Extract for Active Food Packaging: Thermal, Mechanical, Optical, Barrier, and Antifungal Properties, Advances in Polymer Technology Volume 2020, Article ID 4098472, 15 pages. <https://doi.org/10.1155/2020/4098472>

25- Razieh Niazmand & Bibi Marzieh Razavizadeh, Ferula asafoetida: chemical composition, thermal behavior, antioxidant and antimicrobial activities of leaf and gum hydroalcoholic extracts, J Food Sci Technol (2021) 58:2148-2159

[DOI 10.1007/s13197-020-04724-8](https://doi.org/10.1007/s13197-020-04724-8)

26- Razieh Niazmand & Bibi Marzieh Razavizadeh, Active polyethylene films incorporated with β -cyclodextrin/ferula asafoetida extract inclusion complexes: Sustained release of bioactive agents, Polymer Testing 95 (2021) 107113. <https://doi.org/10.1016/j.polymeresting.2021.107113>

27- Bibi Marzieh Razavizadeh, Razieh Niazmand, (2021). Mechanical and biodegradability properties of low density polyethylene/Propolis Blend films, Iranian Journal of Chemistry and Chemical Engineering, 39 (4),.

28- Bibi Marzieh Razavizadeh, Razieh Niazmand, Study of Mechanical and Biodegradability Properties of Low Density Polyethylene/Propolis Blend Films, Iranian Journal of Chemistry and Chemical Engineering (2021) 39(4).

- XII Scandinavian Symposium on Surface Chemistry .(June 1994)
- 14th Canadian Symposium on Theoretical Chemistry, (August 2001), Canada, Ottawa, (CSTC 2001).
- ICCT-2002 (August 2002) Germany, Rostoc.
- 39th IUPAC Congress and 86th Conference of the Canadian Society for Chemistry (Interface Chemistry), (August 2003), Canada, Ontario.
- International Conference on Chemistry and its Applications, (December 2003), Doha, Qatar.
- The first International congress of Iranian chemistry and chemical engineering , Shahid Beheshti University,(1994) Tehran, Iran.
- The second International congress of Iranian chemistry and chemical engineering, Shahid Bahonar University,(1998) Kerman, Iran.
- The 13th National congress of Iranian chemistry and chemical engineering , Tarbiat Modarres University, (1999) Tehran, Iran.
- The second binominal seminar of Iranian electrochemistry, Tabriz University, (1998) Tabriz, Iran.
- The third binominal seminar of Iranian electrochemistry, Mazandaran University, (1999) Babolsar, Iran.
- The first congress of chemistry, Azad university of Iran, (1999) Tehran, Iran.
- The 17th National congress of Iranian chemistry and chemical engineering , Uromia University, (2007) Uromia, Iran.
- The 5th seminar of Iranian electrochemistry, Tarbiat Modarres University, 7-8 May (2009) Tehran, Iran.
- The 6th seminar of Iranian electrochemistry, Kish University, 7-8 October (2010) Kish, Iran.
- Pigments in Foods VII" Congress, Novara, Italy, on 18-21 June 2013, Stablization of anthocyanins by double nanoemulsion technique, oral.
- Pigments in Foods VII" Congress, Novara, Italy, on 18-21 June (2013), "Microencapsulation of Red Pepper Oleoresin for Coloring and Flavouring Purposes, Poster.
- Macular carotenoids conference in Cambridge in July 2013, Extraction and Microencapsulation of Cartenoides from Red Peper .
- And more.....

- "Type of vinegars and application of them", B. M. Razavizadeh, Behnashr

Publisher, 2002 (In Persian).

- **"Molecular spectroscopy" by Bibi Marzieh Razavizadeh - Elahe Gohar Shadi - Hossein Azizi, Roodgoon and Sina Teb Publications, 2014**

**T e a c h i n g
a n d o t h e r
E x p e r i e n c e s**

- **Physical Chemistry, chemical engineering department, faculty of engineering, Ferdowsi University, Mashad, Iran 2005.**
- **General chemistry, Imam Khomeini International University, Ghazvin, Iran, 1994-1995.**
- **Food Safety, Dep. of Food Safety and Quality Control, 2019-2022**