



Research Institute of Food Science & Technology, Mashhad, Iran. [www.rifst.ir](http://www.rifst.ir)

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## Education

(List of all educational institutions attended after high school).

- 2012-second semester *Research Scholar in Department of chemical and Biomolecular Engineering in North Carolina University (NCSTU) for six months as a J-1 Exchange visitor.*
- 2008-2012 *Ph.D. of food engineering; Ferdowsi University of Mashhad (FUM), Mashhad, Iran.*  
Relevant Courses: Food Rheology, Modeling and simulation, Image processing, Applied mathematics in food engineering.
- 2004-2006 *M.Sc. of food science and technology; Ferdowsi University of Mashhad (FUM), Mashhad, Iran.*  
Relevant Courses: Engineering properties of foods, Membrane processes technology, Advanced food process engineering.
- 2000-2004 *B.Sc. of food science and technology; Tabriz University, Iran.*  
Relevant Courses: Food chemistry, Food microbiology, Food process engineering, Dairy technology, Edible oil technology, Sugar technology, Canning.

## Languages

- Farsi-mother tongue.
- English-excellent knowledge in reading, writing and comprehension.
- French-beginner.

## Computer skills

- Operating systems: Windows 2000/XP and Windows 7.
- Software: Microsoft office (word, Excel, PowerPoint, outlook), Statistical (Mstat, Curve Expert, Design Expert, Sigma Stat, Slide Write, Minitab & SPSS), Engineering (Matlab, AutoCAD & Rheoplus), Image processing & Neural networks software.

## Research Interests

- Food Hydrocolloids and rheological and structural properties
- Rheology and microstructure of food biopolymers
- Food Engineering, Membrane technology & its application in edible oil industry

## Peer Reviewed Articles

1. Abdollahi Moghaddam, Mohammad.R., **Rafe, Ali.** and Taghizade, Masoud. (2014). Kinetics of color and physical attributes of cookie during deep fat frying by image processing techniques. *Journal of Food Processing and Preservation*. doi:10.1111/jfpp.12268.
2. **Ali Rafe,** Masood Hashemi (2014). The Rheological Modeling and Effect of Temperature on Steady Shear Flow Behavior of *Cordia abyssinica* Gum. *Journal of Food Processing Technology*. 5:309. doi: 10.4172/2157-7110.1000309.
3. **Ali Rafe,** Seyed Mohammad Ali Razavi (2013). The effect of pH and calcium ion on rheological behaviour of  $\beta$ -lactoglobulin-basil seed gum mixed gels. *International Journal of food science and technology*. 48, 556-563.
4. **Ali Rafe,** Seyed Mohammad Ali Razavi (2012). Dynamic viscoelastic study on the gelation of basil seed gum. *International Journal of food science and technology*. 48, 556-563.
5. **Ali Rafe,** Seyed Mohammad Ali Razavi, Saad Khan (2012). Rheological and structural properties of  $\beta$ -lactoglobulin and basil seed gum mixture: Effect of heating rate. *Food research international*, 49, 32-38.
6. **Ali Rafe,** Seyed Mohammad Ali Razavi, Reza Farhoosh (2013). Rheology and microstructure of basil seed gum and  $\beta$ -lactoglobulin mixed gels. *Journal of Food Hydrocolloids*, 30, 134-142.
7. **Ali Rafe,** Seyed Mohammad Ali Razavi, M.H. Haddad Khodaparast (2012). Refining of Crude Canola Oil using PSA. *International Journal of Food Engineering Ultrafiltration Membrane*, 8, 2.
8. **Ali Rafe,** Seyed Mohammad Ali Razavi (2009). Water and hexane permeate flux through UF polysulfone amide membrane. *Desalination* 236, 39–45.
9. **Ali Rafe,** Seyed Mohammad Ali Razavi (2009). Potential application of UF PSA membrane in degumming of crude canola oil. Presented in the 6<sup>th</sup> International chemical engineering & exhibition (ICHEC 2009), 16-20 Nov, 2009. Kish Island, Iran.
10. Razavi, S.M.A., **Rafe, A.** & R. Akbari (2007). Terminal velocity of pistachio nut and its kernel as affected by moisture content and variety. *African Journal of Agricultural Research*. 2 (12), pp. 663-666.
11. Razavi, S.M.A., Emadzadeh, B., **Rafe, A.** & Mohammad Amini, A. (2007). The physical properties of pistachio nut and its kernel as a function of moisture content and variety: Part I. Geometrical properties. *Journal of Food Engineering* 81, 209–217.
12. Razavi, S.M.A., **Rafe, A.**, Mohammad Amini, A. & Mohammadi Moghaddam, T. (2007). The physical properties of pistachio nut and its kernel as a function of moisture content and variety: Part II. Gravimetric properties. *Journal of Food Engineering* 81, 218–225.
13. Razavi, S.M.A., Mohammad Amini, A., **Rafe, A.** & Emadzadeh, B. (2007). The physical properties of pistachio nut and its kernel as a function of moisture content and variety: Part III. Frictional properties. *Journal of Food Engineering* 81, 226–235.

## Conference presentation

1. **Ali Rafe**, Razavi, S.M.A. & Haddad Khodaparast M. H. (2011). Refining of crude canola oil using PSA ultrafiltration membrane. Poster and short listed for Oral Presentation, 11th International Congress on Engineering and Food (ICEF11). 22-26 May, 2011, Athens, Greece.
2. Bolourian. S., **Rafe. A**, Goli Movahhed, G., Afshari. (2011). Evaluation of production sugar free cookies with permitted additives in order to increase the quality and nutrition properties. Poster Presentation, 11th International Congress on Engineering and Food (ICEF11). 22-26 May, 2011, Athens, Greece.
3. Bolourian. S., **Rafe. A**, Goli Movahhed, G., Afshari. (2011). Evaluation of thermal resistance and efficiency of palm olein and canola oils in frying of potato chips. Poster Presentation, 11th International Congress on Engineering and Food (ICEF11). 22-26 May, 2011, Athens, Greece.
4. **Rafe, A.**, Hemmati, R. & Bolourian, S. (2011). Modeling of mass transfer and axial dispersion coefficients in RDC columns. Poster Presentation, 13th Iranian National Chemical Engineering Congress & 1st International Regional Chemical and Petroleum Engineering Kermanshah, Iran, 25-28 October, 2010.
5. Bolourian, S., Goli Movahhed, G., Afshari, M., & **Rafe, A.** (2011). Optimization of frying oil formula in order to increase the oil stability Poster Presentation, 13th Iranian National Chemical Engineering Congress & 1st International Regional Chemical and Petroleum Engineering Kermanshah, Iran, 25-28 October, 2010.
6. **Rafe, A.** & Razavi, S.M.A. (2007). The evaluation of UF Potential in degumming, bleaching and refining of crude canola oil. Presented in the 2<sup>nd</sup> applied-scientific seminar in oilseeds and edible oil, 22 mordad, Tehran, Iran.
7. Razavi, S.M.A., **Rafe, A.** & Hadad Khodaparast, M.H (2005). Potential of membrane technologies for extraction and purification in oil process industry. First scientific seminar of Iran vegetable oil industry, 17July, Tehran, Iran.

## Book publication

Editors in Djahad Daneshgahi Mashhad. Handbook of Edible natural colors (under press 2011). Iranian Academic Center for Education Culture and Research (ACECR), Mashhad, Iran.

## Awards

The second top person accepted in the exam of M.Sc. IRAN (2005-2006).

The second top person in M.Sc. treatise of Ferdowsi University Festival (2006).

## Research Projects

**Rafe, A.**, Razavi, S.M.A. and HaddadKhodaparast, M.H., 2005-2006, Potential of the de-gumming and de-colorization of Canola raw oil by Ultrafiltration processing.

Razavi, S.M.A., Kashaninejad, M., **Rafe, A.**, Amini, A.M., Emadzadeh, B. and Mohammadi Moghaddam, T., 2004-2006, Gravimetric, Geometrical, Frictional and Aero-dynamical Properties of Iranian Pistachio's Varieties.

**Rafe, A.**, Saberi Najafi, M., 2013-2015. The preparation of garlic oil-*Monascus purpureus* pigment nano-carrier for induced apoptosis.

**Rafe, A.**, Sarbi, M., 2013-2014. Evaluation of production, bioactive components, physicochemical and functional properties of Razavi soft drink in accordance with Razavieh hadith.

## Professional Experience

- 2012-present **Assistant Professor**,  
*Department of food nanotechnology, Research Institute of Food Science & Techn Mashhad, Iran.*
- 2007-2011 **Technical responsible and quality control supervisor**,  
*Nutricia-Mashhad milk powder (multi), Shahrak sanati Toos, Mashhad, Iran.*
- 2010-present **Lecturer**, *Department of Food Science & Technology, Toos Industrial states, Mashhad, Iran.*  
(part-time) **Fields:** Edible oil technology, Applied computer in food science & English for food students.
- 2007-2009 **Lecturer**, *Department of Food Science & Technology, Islamic Azad university, Damghan, Iran.*  
**Fields:** Food packaging, Quality control, Seminar & Edible oil technology.
- 2006 **Research Associate**,  
*Food Technology Research Group, Research Center of Eghbal, Mashhad, Iran.*
- 2006 **Lab responsible in edible oil extraction**,  
*Seh-Gol Khorasan, Edible oil extraction and refinery, Neyshboor, Iran.*