

Curriculum Vitae

Rassoul Kadkhodae; PhD
Department of Food Technology
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EDUCATION

PhD (2000-2004) **Food Science**
University of Leeds, UK
Thesis: *The Use of High Power Ultrasound in Food Engineering*. Studied the destructive effect of high intensity ultrasound waves on bacterial α -amylase and investigated the parameters influencing acoustic cavitation and inactivation of the enzyme. Established a correlation between cavitation noise spectral components, cavitation intensity, and enzyme inactivation.

MSc (1993-1996) **Food Science and Technology**
University of Mashad, Iran
Thesis: *Producing a Fermented Beverage from Sweet Cream Buttermilk*. Isolated lactic acid bacteria from various sources. Used them for fermentation of sweet cream buttermilk and evaluated physicochemical and organoleptic characteristics of the fermented product.
Modules: Advanced Food Chemistry, Industrial Microbiology and biotechnology, Advanced Food Engineering, and Advanced Instrumental Chemistry.

BSc (1989-1993) **Food Science and Technology**
University of Mashad, Iran
Modules: Food Chemistry, Food Analysis, Food Microbiology, Food Engineering, Food Preservation, and Food Quality Control.
Final year project: *Physicochemical Characteristics of Kefir*.

HONOURS AND AWARDS

2001 Book of the year 2001. Award for the translation of "Introduction to Food Engineering", University of Tehran, Iran
1997 First place in PhD entrance exam in Iran
1993 First place in MSc entrance exam in Iran

TRAINING AND COURSES

2001 Ultrasound Workshop, University of Leeds, UK
2000 Simulation and Optimization Tools in Food Processes; Nantes, France
1994 Genetic Engineering and Bioreactor Design, University of Mashad, Iran

FOOD SCIENCE RELATED EMPLOYMENT

2005- Date

**Assistant Professor and Head of
Biotechnology Committee**
Department of Food Technology
Khorasan Science and Technology Park
Mashad, Iran

Conducting and managing research projects in collaboration with food industry. Supervising post graduate students. Current research projects: preparing stable food and medicinal emulsions by ultrasound, ultrasonic inactivation of pectinase in orange juice, ultrasonic extraction of active compounds from saffron.

1997-1999

Industrial Senior Consultant
Agricultural Organization of Khorasan,
Mashad, Iran

Responsible for administration and technical evaluation of food processing industrial plans and consulting services to investors in food industry. Created a database for estimation the amount of raw material annually demanded by over 200 food industries located in the province of khorasan and of freshly consumed in this area. This was used in long term planning for the extension of agriculture and food industry in the province of Khorasan. Revised and commentated the national plan proposed by the Iranian Ministry of Agriculture for the development of agriculture and food industry in the province of Khorasan.

1997-1999

Member of the Board of Directors
Khorasan Council of Research and Technology,
Mashad, Iran

Key contribution in preparation and approval of the guidelines and policies for long term extension of food biotechnology in the province of Khorasan. Industrial advisor for the development of biotechnology in Khorasan (production of acetic acid, citric acid and ethanol). Consultant to food biotechnology students and individuals from industry.

1994-1999

Lecturer
University of Sabzevar, Iran
University of Ghoochan, Iran
Hashemi-Nejad Institute, Iran

Administrator and academic advisor to undergraduate and postgraduate students. Supervised students' projects and independent studies.

Modules Taught: Food Microbiology, Food Chemistry, Fermentation Technology, Industrial Biotechnology, Food Preservation, and Professional Seminar in Food Technology.

2001-2002

Laboratory Teaching Assistant
University of Leeds, UK

Taught Practical Food Technology Module to undergraduate students and laboratory supervision.

1993-1994

Graduate Teaching Assistant
University of Mashad, Iran

Taught Lipid Chemistry as a part of Edible Oil Technology Module to undergraduate students.

PROFESSIONAL AFFILIATIONS

1993-Date	Iranian Association of Food Technologists
1994-Date	Iranian Organization for Scientific and Industrial Research
1997-2000	Iranian Council of Research and Technology
2000-Date	Institute of Physics, UK

PUBLICATIONS AND PRESENTATIONS

Hassani, A., Kadkhodae, R., Hamed Mousavian, M. H. (2007) Producing stable emulsions by ultrasound with emphasis on the use of Taguchi statistical methodology: a new approach. A paper presented at the 5th International Congress on Food Technology, Thessaloniki, Greece, 7-11 March 2007.

Kadkhodae, R.; Sadeghian, A. R. (2007) Ultrasonic-assisted emulsification: probing creaming and droplet size distribution. A paper presented at the 5th International Congress on Food Technology, Thessaloniki, Greece, 7-11 March 2007.

Mehmandoost, N.; kadkhodae, R.; Hamed Mousavian, M. T. (2007) Investigation of the effect of ultrasound on pectinmethyl esterase and nutrient content of fresh orange juice. A paper presented at the 5th International Congress on Food Technology, Thessaloniki, Greece, 7-11 March 2007.

Kadkhodae, R.; Hemmati Kakhki, A. (2006) Ultrasonic extraction of active compounds of saffron. A paper presented at the 2nd International Symposium on Saffron Biology and Technology, Mashad, Iran, 28-30 October 2006 and also submitted to Ultrasonics Sonochemistry.

Kadkhodae, R.; Sadeghian, A. R. (2006) Ultrasonic emulsification: effect of temperature and acoustic power on droplet size distribution, emulsion stability and oil deterioration. A paper submitted to the 13th World Congress of Food Science and Technology, Nantes, France, 17 – 21 September 2006.

Kadkhodae, R (2006) Green chemistry: a comprehensive overview on acoustic cavitation and ultrasonic preservation of foods. A paper presented at the 16th National Congress of Food Industry, Gorgan, Iran, 11-12 April 2006.

Kadkhodae, R.; Povey, M. (2006) Ultrasonic inactivation of Bacillus α -amylase I. effect of gas content and emitting face of probe. Ultrasonics Sonochemistry. In Press.

Kadkhodae, R.; Povey, M. (2006) Ultrasonic inactivation of Bacillus α -amylase II. effect of amplitude and acoustic power. Ultrasonics Sonochemistry. In Press.

Kadkhodae, R.; Povey, M. (2006) Correlation between cavitation noise spectrum and sonochemical reactions. A poster presented at the 10th meeting of the European Society of Sonochemistry, Hamburg, Germany, 4-8 June 2006.

Kadkhodae, R.; Povey, M. (2006) An investigation on the cavitation phenomena in pulsed ultrasound field I. preliminary study. A poster presented at the 10th meeting of the European Society of Sonochemistry, Hamburg, Germany, 4-8 June 2006.

Kadkhodae, R; Povey, M (2003) “Correlation between spectral characteristics of acoustic cavitation and liquid temperature at different ultrasound

intensities.” A paper presented at the International Ultrasonics Conference, Granada, Spain, 30 June -3 July 2003.

Kadkhodae, R; Povey, M (2002) “Influence of different factors on acoustic inactivation of bacterial α -amylase.” A paper presented at the 2nd Anglo-French Physical Acoustic Conference, Wissant, France, 10-12 December 2002.

Kadkhodae, R; Povey, M (2001) “Acoustic inactivation of bacterial α -amylase.” A paper presented at the 1st Anglo-French Physical Acoustic Conference, Kent, UK, 13 December 2001.

Mortazavi, A; Kadkhodae, R; Karimi, M; Rahimi, S (2002) “Biotechnology: A Textbook of Industrial Microbiology.” 2nd edition . Mashad University Press, Iran. A textbook translated from English into Persian edited by Brock, T D from German into English originally written by Crueger, W and Crueger, A (1984) Sunderland, Mass: Sinauer Associates.

Mortazavi, A; Seyf-Kordi, A; Kadkhodae, R; Shaffafi, M (2002) “Introduction to Food Engineering.” 2nd edition. Mashad University Press, Iran. A book translated from English into Persian edited by Singh, P R and Heldman D R (1993) 2nd edition. San Diego; London: Academic Press.

Kadkhodae, R; Mortazavi, M (1998) “Producing a fermented beverage from sweet cream buttermilk” Iranian Journal of Agricultural Science and Technology. 2(5) 176-185.

Shaffafi, M; Kadkhodae, R (1995) “The use of edible biofilms in food preservation.” A paper presented at the 8th Iranian National Conference of Food Technology, 25-28 October 1995, Karaj, Iran.

Komeylidoost, S; Kadkhodae, R (1994) “Degradation of aflatoxins by food additives.” A paper presented at the 7th Iranian National Conference of Food Technology, 12-15 October 1994, Tehran, Iran.

Mortazavi, M; Kadkhodae, R; Gheybi, F (1993) “A study on the physicochemical characteristics of kefir grains.” A paper presented at the 6th Iranian National Conference of Food Technology, 25-28 September 1993, Ramsar, Iran.

REFERENCES

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