



Iranian Research Organization for
Science and Technology

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Education

Biotechnology

PhD

1- B.Sc. in Microbiology, 1985, Faculty of Science, Tehran University, Tehran, IRAN.

2- M.Sc. in Microbiology, 1989, Tehran University, Tehran, IRAN. Title of thesis: Identification of Three *Cellulomonas* spp. from IRAN and Evaluation of them in Production of SCP. M.Sc. thesis. Tehran University, Tehran, IRAN.

3- Ph.D. in Biotechnology (Biological Products), 1996, Pasteur Institute of IRAN, Tehran, IRAN. Title of thesis: Production, Purification and Immobilization of Glucose Isomerase for preparation of High Fructose Syrups.

Journal papers

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 - 22- Sara Honardoost*; Jamshid Fooladi; Mehrdad Azin; Parinaz Ghadam. Partial Purification of a Thermostable Lipase From a Local Strain of *Geobacillus stearothermophilus* and Its Zymographic Analysis. Ardabil, Iran, July, 14-16, 2012.
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- 1- Production of SCP from sugar cane bagasse (project manager). 1987-1989. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 2- Production of SCP from orange peels (assistant researcher). 1989-1990. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 3- Laboratory scale production of *Bacillus thuringiensis* M-H-14 (assistant researcher). 1987-1989. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 4- Preservation of industrial and pathogenic microorganisms (assistant researcher). Persian Type Culture Collection (PTCC). 1987-1990. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 5- Isolation of native microorganisms for production of glucose isomerase (project manager). 1993-1995. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 6- Preparation of biological manure (project manager). 1994-1995. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 7- Pilot plant scale production of *Bacillus thuringiensis* M-H-14 (assistant researcher) 1989-1999. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 8- Production, purification and immobilization of glucose isomerase for preparation of high fructose syrup (project manager). 1991-1996. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 9- Laboratory scale production of L-lysine (project manager). 1997-1998. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 10- Production of over-producing *Aspergillus niger* mutants for production of glucoamylase (project manager). 1998-1999. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 11- pilot-scale production of L-lysine (project manager). 1998-2000. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 12- Pilot-scale production of microbial rennet (project manager). 1999-2001. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 13- Microbial Production of beta-carotene by *Blakeslae trispora*- Over production of beta-carotene by mutation and selection (assistant researcher). 1999-2001. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.
- 14- Feasibility study of production of microbial rennet in Iran (project manager). 2002-2003. Biotechnology Center. Iranian Research organization for Science & Technology. Tehran. Iran.
- 15- Evaluation of Enhancement of Alcohol Production in Parchin Alcohol Producing Plant (Project Manager). 2003-2005. Joint Venture Research Program: Iranian Research Organization for Science & Technology, Management and Programming, Parchin Alcohol Production Plant.
- 16- Enhancement of Suagr Extraction of Date Fruit by Enzymatic Treatment (Project Manager). 2008-2010. Iranian Research Organization for Science & Technology.
- 17- Production of Bioethanol from Lignocellulosics (a work performed as a scientific consortium of 6 scientific organizations). 2008-2011.
- 18- Co-fermentation of lignocellulosic material for production of bioethanol. 2011-2013.
- 19- Pilot production of Streptococcosis & Lactococcosis vaccine. 2011-2012.
- 20- Production of Xanthan from cheese whey. 2012-2013.
- 21- Production of bioethanol from water plants, Azola and Duckweed. 2012-2014.
- 22- Production of Bioethanol from microalgal isolated from Persian Gulf, 2017-2019.

- 23- Using Artificial Laboratory Evolution for improving an industrial ethanol producer strain of *Saccharomyces cerevisiae*. 2018-2022.
- 24- Increasing cell concentration of probiotic strain, 2017-2022.

Main fields of interest

- 1- Second and third generations of bioethanol production
- 2- Lignocellulosic digesting enzymes
- 3- Biopolymers of microbial origin

Supervision of theses

Supervision of more than 20 Thesis of MSc and PhD degree.

Main responsibilities

- 1- Head of biotechnology pilot-plant. 1993-1999.
- 2- Head of the Office of Link with Industry, Ministry of Science, Research and Technology, 2001-2006.
- 3- Member of Expertise Committee of Biotechnology, IROST, 2002.
- 4- Head of the Office of University- Industry linkage, IROST, 2001-2006.
- 5- Member of the Expertise Committee of IROST, 2002-2009.
- 6- Dean Of Department of Biotechnology, 2009- continued
- 7- Representative of IROST in New Energies Headquarter, 2009-continued
- 8- Member of the Scientific Board of the Biotechnology Group, University of Tehran, 2003-2005.
- 9- Member of Advisory Committee of Khawrazmi Scientific Festival, 2004-present.
- 10- Head of biotechnology pilot-plant. 2012-2018.
- 11- Head of biotechnology Department, IROST. 2013-2015.
- 12- Head of Bioenergy and Bioconversion research group 2010- continued

Scientific Adviser to:

- Biotechnology Programming Group, Biotechnology Center, IROST.

- Biotechnology Scientific Group, Biotechnology Center, IROST.
 - Biotechnology Committee, Khawrazmi Scientific Award, IRAN.
 - Biotechnology Committee, Ministry of Jihad-E-Sazandegi, IRAN.
 - Many industries including Bidestan Alcohol Producing Complex.
- Teaching Experiences: Over 20 years of Teaching in universities in BSc, MSc and PhD grades.

Training Courses: Over 20 training courses passed in the fields of fermentation, Microbial Physiology and Genetics, Statistics, Microbial Products.

Experiences:

- Microbial mutation & selection for over-production of microbial metabolites
- Fermentation and industrial microbiology
- Enzyme and cell immobilization techniques
- Product recovery by chromatography, electrophoresis, cell-disintegration, etc.
- Enzyme and amino acid production.
- Yeast technology consisting baker's yeast and ethanol (Bioethanol) production
- Design of Experiments