



### *Curriculum Vitae* 2017

**Name:** Mehrdad  
**Surname:** Azin  
**Place of Birth:** Tehran, IRAN  
**Languages:** Farsi, English  
**Tel/Fax:** +98-21-56276636  
**E-mail:** [azin@irost.org](mailto:azin@irost.org)



**Address:** Department of Biotechnology, Iranian Research Organization for Science & Technology, P. O. Box 15815-3538, 71 Forsat St., Enghelab Ave., Tehtan 15819, Iran

#### **University Degrees:**

- 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 articles:**

- 1- Malekzadeh, F., Azin, M., Shahamat, M. & Colwell, R.R. (1993) Isolation and Identification of three *Cellulomonas* spp. from Forest soils. *World J. Microbiol. Biotechnol.* **9**, 53-55.
- 2- Azin, M. (1990) Production of SCP from Sugar Cane Bagasse. *Pajouhesh. Winter*, 63-68.
- 3- Azin, M. Moazami, N. and Nemat-Gorgani, M. (1997) Production, Purification and Immobilization of Glucose Isomerase from *Streptomyces olivochromogenes* PTCC 1457. *World J. Microbiol. Biotechnol.* Vol. 13 (5) 597-8.
- 4- Karbasi, M., Ghassabian, S. and Azin, M. (1999) A report on the research project of production of L-Lysine. *Bulletin of Biotechnology Commission. I.R.Iran.* Vol. 2 (1), 19-24.
- 5- Azin, M. and Noroozi, E. (2001) Random mutagenesis and use of 2-deoxy-D-glucose as an antimetabolite for selection of  $\alpha$ -amylase-overproducing mutants of *Aspergillus oryzae*. *World Journal of Microbiology and Biotechnology*, Vol. 17, 747-750.
- 6- Mazaheri, A. M., Rostami, K. Shavali, M. and Azin, M. (2001) Decolorization of textile wastewater by *Phanerochaete chrysosporium*. *Desalination*, Vol. 141, pp. 331-336.
- 7- Azin, M. (2001) Microbial Biotechnology. *Bulletin of Biotechnology Commission, National Research Council of I.R.Iran.* Vol. 4, pp. 31-39 (In Farsi).
- 8- D. Zareh and M Azin. Increase in  $\beta$ -carotene production by *Blakeslea trispora* grown with whole cells of some microorganisms. *Iranian Journal of Biology.* 2004, 14 (1 & 2): 1-11.
- 9- Azin, M. Moravej, R. and Zareh, D. (2007) Production of xylanase by *Trichoderma longibrachiatum* on a mixture of wheat bran and wheat straw : Optimization of culture condition by Taguchi method. *Enz. Microb. Technol.* Vol. 40, No. 4, pp 801-805.
- 10- Hashemiravan Mahnaz and Azin Mehrdad (2005) Using mutagenic agents in native Acetobacters for production of acetic acid with high productivity in vinegar industries. *Science and Research Journal of Food and Nutrition Sciences.* Vol. 3, No. 1, Winter.
- 11- Zareh, F., Azin, M., Nikoupour, H. and Maslumi, M. T. (2006) Evaluation of Pectolytic and cellulolytic enzymes on improvement of sugar extraction process in dates. *Iranian Journal of Nutrition Sciences and Food Technology.* Vol. 1, No. 1. pp. 15-21.
- 12- Azin, M. Bioethanol or Green Fuel: Introducing a New and Environmental Friendly Fuel. *Jam-e-Jam Daily Newspaper.* No. 1841, p. 24.

- 13- Tofighi, A., Azin, M. \*, Mazaheri Assadi, M. , Assadi-rad, M. H. A. Nejadstari, T. and Fallahian, M.R. Inhibitory Effect of High Concentrations of Furfural on Industrial Strain of *Saccharomyces cerevisiae*. *Int. J. Environ. Res.*, 4(1):137-142, Winter 2010
- 14- Samira Bahramian, Mehrdad Azin, Mohammad Chamani and Abbas Gerami. Optimization of Enzymatic Extraction of Sugars from Kabkab Date Fruit. *World Applied Sciences Journal*, 9, 85-90, 2010.
- 15- Taghizadeh, Y., Zare, D. Mortazavi, S. A., Azizmohseni, F. Azin, M. and Heydarian, M. Weight and Flavor Optimization in Tofu Production by Taguchi Method. *Journal of Food Science & Technology*. 6, 59-68. 2010.
- 16- Jafari, Z., Majd, A. Falahian, F. and Azin, M\*. Optimization of Simultaneous Production of Amylase and Pectinase by *Aspergillus oryzae*. *Journal of Sciences Islamic Azad University*. 18, 17-30, 2009.
- 17- Maryam Gharachorloo, Mehrdad Ghavami, Sepideh Hosseini\*, Mehrdad Azin and Seyed Zeadin Mazaheri. Cultivation of *Mortierella alpina* on Less Expensive Medium- Chemical Evaluation of Produced Oil. (2012) *Journal of Pure and Applied Microbiology*, Vol 6:1-10.
- 18- Hosseini, S., Azin, M.\*, Ghavami, M., Hosseini Mazhari, S.Z. Evaluation of production of Single Cell Oil by *Mortierella alpina*. 2012, *Food Technology and Nutrition*, Vol. 9:6-14.
- ۱۹- رویا مروج، مهرداد آذین\*. ۱۳۹۱، بررسی و بهینه سازی تولید آنزیمهای آمیلولیتیک توسط قارچ *Trichoderma longibrachiatum* با استفاده از روش آماری تاکوچی. *مجله زیست شناسی ایران*. شماره ۴، جلد ۲۵. صفحه ۵۰۸-۵۰۱.
- ۲۰- گیلدا دزیانی؛ مهرداد آذین، مرتضی خوشوقت علی آبادی. ۱۳۹۱. زیست چارگی پساب کارخانه قند شاهرود. *مجله زیست فناوری میکروارگانیسمهای محیطی*. شماره دوم. صفحه ۳۱-۴۳
- 21- Mohsen Ahi, Mehrdad Azin, Seyed A. Shojaosadati, Ebrahim Vasheghani-Farahani, Mohsen Nosrati 2013. Optimization of Sugarcanne Bagasse Hydrolysis by Microwave-Assisted Pretreatment for Bioethanol Production. *Chem. Eng. Technol.*, 36, No. 11, 1997-2005.
- ۲۲- محمد مشهدی کریم، مهرداد آذین\*، سید لطیف موسوی گرگری، میثم سرشار. ۱۳۹۰. مقایسه عملکرد سلول های آزاد و تثبیت شده باسیلوس لیکنی فورمیس در تولید پروتئاز قلبیایی. *مجله دنیای میکروبیها*. سال چهارم. صفحه ۱۵-۲۲.
- 23- Mohammad Mahdi Zaman, Seyedeh Hamideh Mortazavi, Marzieh Aligholi, Hodiseh Mahmoud Janlou, Samira Khodi Aghmiuni, Malihe Sadat Pormasjedi-Meibod, Naghmeh Ghanadian, Mehrdad Azin, Mahmoud Ghazi Khansari \*. 2012. Native Bacterial Mixed Culture: A Proportionate Solution for Refinery and Petrochemical Wastewaters. *Thrita Journal of Medical Sciences*. DOI: 10.5812/thrita.7278.
- 24- Aghdas Ramezani, Mahyat Jafari, Tannaz Goodarzi, Seyed Mehdi Alavi, Ali Hafez Salmanian & Mehrdad Azin. 2014. Lactose consuming strains of *Xanthomonas citri* subsp. *citri* (Xcc) insight into the emergence of natural field resources for xanthan gum production. *W J Microbiol Biotechnol*. 30(5):1511-7.
- 25- Bahareh Rahimian Zarif\*, Mehrdad Azin. 2014. Identifying Probiotics of *Macrobrachium rosenbergii*'s Intestine Micro Flora and Their Effect in Prawn's Growth and Survival. *Advances in Life Sciences*, 4(3): 123-130.
- ۲۶- محسن آهی، مهرداد آذین، سید عباس شجاع الساداتی، ابراهیم واشقانی فراهانی، محسن نصرتی. ۱۳۹۳. بهینه سازی تولید بیواتانول از باگاس نیشکر پیش تیمار اسیدی شده با به کارگیری پیکیا استیبیتیس. *فصلنامه زیست شناسی میکروارگانیسمها*. سال سوم، شماره ۹، صفحه ۲۰-۱۱.
- 27- Farnak Mohammadkazemi, Mehrdad Azin, Alireza Ashori\*, 2015. Production of bacterial cellulose using different carbon sources and culture media. *Carbohydrate Polymers* 117 , 518-523.
- ۲۸- شکوفه غازی، مهرداد آذین، عباس اخوان سپهی. 1393 افزایش میزان تولید آنزیم گزیلاناز از باسیلوس موجاونسیس با استفاده از روش جهش زایی تصادفی. *مجله زیست شناسی میکروارگانیسم ها*، سال سوم، شماره ۱۱، صفحه ۳۶-۲۱.
- 29- Ghazi Sh, Akhavan Sepahi A, Azin M, Khaje Kh, Khavarinejad R. 2014. UV mutagenesis for the overproduction of xylanase from *Bacillus mojavenis* PTCC 1723 and optimization of the production condition. *Iran J Basic Med Sci* 17:844-853.
- ۳۰- سیده ساناز میرنژاد خباز، مریم قراچورلو، مهرداد آذین، مهرداد قوامی، بابک غیائی طرزی. *صمغ گیری روغن خام سویا با آنزیم لسیتاز اولترا*. *مجله علوم تغذیه و صنایع غذایی ایران* - سال نهم، شماره ۳، پاییز ۱۳۹۳، صفحات ۷۲-۶۳.
- ۳۱- ناصر تاجیک\*، مهرداد آذین، مسعود فلاح پور، رضوان پوراحمد. ۱۳۹۳. جهش زایی توسط UV و اسید نیتریک برای افزایش تولید رنت در *Rhizomucor miehei*. *فصلنامه زیست شناسی میکروارگانیسمهای ایران*. شماره ۱۰، صفحه ۱-۱۲.

- 32- FARANAK MOHAMMADKAZEMI, KAZEM DOOSTHOSEINI and MEHRDAD AZIN. 2015. EFFECT OF ETHANOL AND MEDIUM ON BACTERIAL CELLULOSE (BC) PRODUCTION BY *GLUCONACETOBACTER XYLINUS* (PTCC 1734). *Cellulose Chem. Technol.*, **49** (5-6), 455-462(2015).
- 33- Faranak Mohammadkazemi, Kazem Doosthoseini, Eshmaiel Ganjanc, Mehrdad Azin. 2015. Manufacturing of bacterial nano-cellulose reinforced fiber\_cement composites. *Construction and Building Materials* 101 958–964.
- 34- Hoda Nouri, Mehrdad Azin\*, and S. Latif Mousavi 2017. Enhanced ethanol production from sugarcane bagasse hydrolysate with high content of inhibitors by an adapted *Barnettozyma californica*. *Environmental Progress & Sustainable Energy*. DOI 10.1002/ep.12769.
- 35- Hoda Nouri, Mehrdad Azin\*, Mir Latif Mousavi Xylan-hydrolyzing thermotolerant *Candida tropicalis* HNMA-1 for bioethanol production from sugarcane bagasse hydrolysate. 2017. *Annals Microbiology*. *Ann Microbiol* 67:633–641

#### Conference papers:

- 1- Azin, M., Malekzadeh, F. & Moazami, N. (1989) Production of SCP from sugar Cane Baggasse. National Food Conversion technology Congress. Faculty of engineering, Tehran University, October 15-17.
- 2- Azin, M., & Moazami, N. (1989) Production of SCP from sugar Cane Baggasse. Second Congress of Forest and Technology. Faculty of engineering, Tehran University, December 19-21.
- 3- Moazami, N., Samadi, P., Tabatabai, M., Azin, M., Mirdamadi, S. & Kiani, M. (1991) Production of Microbial Insecticides in IRAN. First Regional Congress of Biotechnology, Tehran, Iran. November 1991.
- 4- Mazaheri, A., Moazami, N., Salaji, M. H., Vaziri, M., Tabatabai, M., Samadi, P., Azin, M. & Kiani, M. (1991) Effects of *Fusarium solani* in Controlling Broomrape in Sunflower, Cucumber, Tobacco, Melon, Watermelon and Cucurbit. First Regional Congress of Biotechnology, Tehran, Iran. November 1991.
- 5- Azin, M., Moazami, N. and Nemat-Gorgani, M. (1997) Evaluation of production and immobilization of glucose isomerase. 4<sup>th</sup> Biochemistry Congress, 19-22 Oct. 1997. Babol University of Medical Sciences. I. R. Iran.
- 6- Azin, M., Ghassabian, S. and Karbasi, M. (1999) Laboratory scale production of L-lysine . 8<sup>th</sup> Conference of Biology. 31st Aug - 2d Sept. Razi University. Kermanshah. I. R. Iran.
- 7- Afzali, S., Azin, M., Fooladi, J., Mirdamadi, S., and Zareh, D. (2000) Isolation of extracellular lipase producing strains and optimization of enzyme production. The First National Congress of Biotechnology. Feb. 22-24 2000. Tarbiat-E- Modarres University. Tehran, Iran.
- 8- Azin, M., Haghighi, K. and Karbasi, M., (2000) Fermentative production of L-lysine. The First National Congress of Biotechnology. Feb. 22-24 2000. Tarbiat-E- Modarres University. Tehran, Iran.
- 9- Azin, M., Haghighi, K. and Karbasi, M., (2000) Production of L-lysine by fermentation. 5<sup>th</sup> National & 4<sup>th</sup> International Chemical Engineering Congress. April 24-27, 2000. Shiraz University. Shiraz, Iran.
- 10- Noroozi, E. and Azin, M. (2001) Production of alpha-amylase by mutant strain of *Aspergillus oryzae*. Asian International Mycological Congress. Agricultural Research, Education and Development Organization, Ministry of Jihad-e-Agriculture. Karaj, I.R. Iran September 17-20. p. 90.
- 11- Azin, M. (2001) Developments in solid state fermentation. Asian International Mycological Congress. Agricultural Research, Education and Development Organization, Ministry of Jihad-e-Agriculture. Karaj, I.R. Iran September 17-20. p. 91.
- 12- Azin, M., Norouzi, J., Zareh, D. and Alempour Salemi, F. (2005) Comparison of some species of baker's yeast for the amount of growth and sugar utilization in culture. 13th Iranian Biology Conference and the First International Conference of Biology. Guilan University, Rasht, I.R. Iran. 17-20 Sept. (Oral presentation).
- 13- Zareh, F., Azin, M., Nikoupour, H. and Mazloumi, M. T. Enzymatic treatment for improvement of date sugar extraction process. 4th National Biotechnology Congress of Biotechnology. Kerman, I.R. Iran. August 2005.
- 14- Alempour Salemi, F., Azin, M. and Norouzi, J. Comparison of some industrial baker's yeast strains in their production of CO<sub>2</sub>, trehalose, consumption of sugar and growth rate. First International Iranian Congress on Biological Science. Azad University of Iran. Karaj, I.R. Iran. September 2005. (poster).

- 15- Zareh, F., Azin, M. and Nikoupour, H. (2006) Pectinolytic and cellulolytic enzymes for improvement of date sugar extraction process. 13th World Congress of Food Science & Technology. 17-21 September, 2006, Nantes, France (Oral presentation).
- 16- Maleki, M., Azin, M. and Ghaemi, N. Optimization of Lysine Production by *Corynebacterium glutamicum* by Random Mutagenesis. First National Congress of Biotechnology and Biocatalysis. Shar-e Ray. November 2006.
- 17- Zareh, D., Azin, M., Asad, S., Dastgheyb, S. M. M., Asgharian, H and Kabiri M. Optimization of Production of Alpha-Amylase by *Aspergillus oryzae*, using Full Factorial and Taguchi Statistical Methods and their comparison. The 5th National Biotechnology Congress of Iran, 24-26 Nov, 2007, Summit Meeting Conference Hall, Tehran- Iran.
- 18- Khanjani, S. Zare, D. Mazaheri M and Azin, M. Effect of Different Carbon/Nitrogen ratio and Induction Factors of Beta-Carotene Production by *Blakeslea trispora*. 15<sup>th</sup> National & 3<sup>rd</sup> International Conference of Biology, 19-21 August 2008, University of Tehran, Tehran, Iran.
- 19- Zohreh Jafari1 ,Ahmad Majd ,Fathollah Fallahian1, Mehrdad Azin \*. Optimization of Simultaneous Production of Amylase, Pectinase and Cellulase, by *Aspergillus oryzae*. 5<sup>th</sup> International Chemical Engineering Congress and Exhibition Kish Island, 2 - 5 January 2008.
- 20- Towfighi, A., Azin, M., Mazaheriassadi, M. Assadirad, M. H. and Falahian F. Inhibitory Effect of Furfural on Growth Kinetics of Two Industrial Strains of *Saccharomyces cerevisiae*. The 6th National Biotechnology Congress of Iran 13-15 Aug, 2009, Milad Tower Conference Hall, Tehran- Iran.
- 21- Mohsen Ahi; Mehrdad Azin; Seyed Abbas Shojaosadati; Ebrahim Vasheghani Farahani; Mohsen Nosrati. Bioethanol Production From Sugarcane Bagasse Hemicellulose Using *Pichia Stipitis*. The 13<sup>th</sup> Iranian and 2<sup>nd</sup> International Conference of Microbiology. Ardabil, Iran, July, 14-16, 2012.
- 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.
- 23- Hoda Nouri\*; Mehrdad Azin; Seyed Mir Latif Mousavi Gargari ;Farzane Ahadzadeh Salout. Selection of Furfural Tolerant-xylan Degrading Native Yeasts for Bioethanol Production. Ardabil, Iran, July, 14-16, 2012.
- 24- Hoda Nouri; Mehrdad Azin\*; Seyed Mir Latif Mousavi Gargari ;Behzad Dehghani. Evaluation of Different Methods for Ascomycetous Yeasts' DNA Extraction. Ardabil, Iran, July, 14-16, 2012.
- 25- Shahram Sharafi\*; Mehrdad Azin; Ali Mashinchian Moradi; Anita Khanafari; S. Mohammad Reza Fatemi. Dilute Acid Hydrolysis of Freshwater Fern (*Azolla* Sp.) For Production of Bioethanol. Ardabil, Iran, July, 14-16, 2012.
- 26- Tahere Sajadi; Mehrdad Azin\*; Mahnaz Mazaheriassadi. Production of Cellulases by *Trichoderma* Spp. Mutants. Ardabil, Iran, July, 14-16, 2012.
- 27- Sepideh Shokri khaneghah; Mehrdad Azin\*; Hatef Ajudanifar. Detoxification of Sugarcane Bagasse Dilute-Acid Hydrolyzate by Overliming for Bioethanol Production. Ardabil, Iran, July, 14-16, 2012.
- 28- Milad Rabbani Esfahani, Mehrdad Azin. Microwave-High Temperature Pretreatment and Enzymatic Hydrolysis of Sugarcane Baggasse. 12<sup>th</sup> Annual Meeting of American Institute of Chemical Engineers (AIChE). Pitsburg-Pennsylvania, USA. Oct. 28- Nov. 2<sup>nd</sup>, 2012.

#### Research Activities:

- 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.

**Main field of recent activities:**

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

**University Thesis:** Guide of more than 20 Thesis of MSc and PhD degree.

**Executive 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-continued.
- 11- Head of biotechnology Department, IROST. 2013-2015.

**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 immobilisation 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 by Taguchi, Response Surface and Simplex methods.