

Curriculum Vitae

(2020)

Name: Davood

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Date of Birth: May, 21th.1970

Place of Birth: Karaj, Tehran, IRAN

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University Degrees:

1- B.Sc. in Microbiology, 1993, Tehran University, Tehran, IRAN.

2- M.Sc. in Bacteriology, 1996, Pasture Institute of Iran, Tehran, IRAN. 2

3- PhD in Food biotechnology, 2013, University Putra Malaysia, Kuala Lumpur, Malaysia

Publications and Congress:

- 1- **Zare, D.** and Mazaheri, M. (1997) Production of Single cell oil from Whey. 4th Biochemistry Congress, 19-22 Oct. 1997. *Babol University of Medical Sciences*. I. R. Iran.
- 2- **Zare, D.**, Ameri, F. & Azin, M. (2001) Optimization of betacarotene production by *B. trispora*. *6 th National Chemical Engineering Congress*. Isfahan university.
- 3- Moazed, H., Gorbani, M., Rostami, R. and **Zare, D.** (2001) Optimization of SCP production from whey by *K.fragilis*. *6 th National Chemical Engineering Congress*. Isfahan University.
- 4- Afzali, S., Azin, M., Fooladi, J. & **Zare, D.** (2000) Screening of extracellular lipase producing strains from environment. *The first National Congress of Biotechnology*. 22-24 Feb. 2000. Tehran, Iran
- 5- **Zare, D.**, Ameri, F., Ahmadian, M. & Hamzehi, H. (2002) The effect of trisporic acid from Plus strain on production of betacarotene by *B. trispora*. *The first colorant manufacturing & environmental protection Seminar*. 18 Feb. 2002. Tehran. Iran.
- 6- **Zare, D.** and kiani, M. (2004) Comparison of betacarotene production by *B. trispora* in stirred tank and airlift bioreactor. *Pajooresh va Sazandegii*.
- 7- **Zare, D.** and Azin, M. (2003) Increase in betacarotene production by *B. trispora* grown with whole cells of some microorganisms. *Journal of Biology*.
- 8- **Zare, D.** and Tagizadeh, T (2005) Test panel of tofu, produced from soybean by some essences, and production of fermented food (tempeh) from soy residues (okara) by *Rhizopus Oligosporus*. *4th National Congress of Biotechnology*. August 2005. Kerman

- 9- Habibi, Y., **Zare, D.**, keshavarzi, M, and Heydari, A. (2005) Optimization of culture media for production of *Bacillus Coagulans* to control cotton seedling damping off. *4th National Congress of Biotechnology*. August 2005. Kerman
- 10- Azin, M., Noroozy, G., **Zare, D.** and Alempoor, F. (2005) Comparison of some species of baker yeast for the amount of growth and sugar utilization in culture. *1th International Biology Conference*. August 2005.
- 11- **Zare, D.** (2005) Bioplastics and green chemistry: A solution for nondegradeble plastics. *Iranian Association of Chemical Engineering Journal*. 2005, No: 18. 3-10 3
- 12- **Zare, D.** and Tagizadeh, T. (2006) Production of tempeh from Okara. *16th National Congress of Food Industry*. April 2006. Gorgan
- 13- Azin, M., Moravej, R. and **Zare, D.** (2006) Production of xylanase by *Trichoderma longibrachiatum* on a mixture of wheat bran and wheat straw: Optimization of culture condition by Taguchi method. *Enzyme and Microbial Technology*. June 2006
- 14- Maleki, M., Azin, M, **Zare, D.** and Ghaemi, N. (2006) Improvement of lysine production in *Corynebacterium glutamicum* by random mutagenesis. *The 1th Conference on Biotechnology and Biocatalysts*. 20-21 Nov.
- 15- **Zare, D.** and Tagizadeh, M. (2006) Fermentation and optimization of tempeh production in pilot plant. *The 1th Conference on Biotechnology and Biocatalysts*. 20-21 Nov.
- 16- **Zare, D.**, Azin, M., Asad, S., dastgeyb, S., asgarian, H. and Kabiri, M. (2007) Comparison of full factorial and taghuchi method as two statistic methods for optimization of alpha amylase production by *Aspergillus oryzea*. *The 5th National Biotechnology Congress of Iran*. 24-26 Nov. Tehran. Iran.

- 17- **Zare, D.** and Tagizadeh, M. (2007) Optimization of tofu production content in pilot plant by taghuchi method. *The 5th National Biotechnology Congress of Iran*. 24-26 Nov. Tehran. Iran.
- 18- **Zare, D.** (2008) Tofu or Asian cheese as food product from soy in Iran. *Sonboleh*, April, 10-19-
- 19- Asgarian, E., Ghadam, P., **Zare, D.** and Safari, N. (2008) Extraction and isolation of carotenoid pigments from *Haloferax IRU1*, Iranian Extreme Halophile archae, By TLC. *Proceedings of the 15th National & Third international Conference of Biology*. 19-21 Aug. University of Tehran.
- 20- **Zare, D.**, Khanjani, S., Mazaheri, M. & Azin, M. (2008) Effect of different carbon/nitrogen ratio and induction factors in betacarotene production by *Blakeslea trispora*. *Proceedings of the 15th National & Third international Conference of Biology*. 19-21, Aug. University of Tehran.
- 21- **Zare, D.**, Tagizadeh, M. (2008) Utilization of Lighvan whey microflora to produce fermented Tofu. *15th International Student Conference of Biotechnology*. 15-17 Nov. University of Tehran.
- 22- **Zare, D.**, Tagizadeh, M., Azin, M. and Heydarian, M. (2009) Weight and flavor optimization in tofu production by taghuchi method. *Iranian Science and Food Journal*.
- 23- **Zare, D.** (2009) Biofuel production methods. *Iranian Association of Chemical Engineers Journal*.
- 24- **Zare, D.**, Azin, M, Rasi. H. & Mirdamadi, S. (2009) Enhancement of Tylosin Production in *Streptomyces fradiae* by Mutation. *Pajouhesh va Sazandegi*.
- 25- Abdehagh, N., Heydarian, S.M., Bonakdarpour, B., **Zare, D.** (2009) Removal of H₂S from synthetic waste gas streams using a biotrickling filter with polyurethane foam as synthetic bed, The 6th International Chemical Engineering Congress & Exhibition, *Kish, Iran*, 16-20 November
- 26- Abdehagh, N., Taghinejad Namini, M., Bonakdarpour, B., Heydarian, S.M., **Zare, D.** (2011) The use of response surface methodology for the study of the effect of liquid recirculation rate on the hydrogen sulfide removal performance of a biotrickling filter employing immobilised

Thiobacillus thioautotrophicus, International Chemical Engineering Congress & Exhibition, Kish, Iran, 21-24 November

27- Abdehagh, N., Taghinejad Namini, M., Heydarian, S.M., Bonakdarpour, B., **Zare, D.** (2011) Performance of a biotrickling filter employing thiobacillus thioautotrophicus immobilized on polyurethane foam for hydrogen sulfide removal , *Iranian Journal of Environmental Health Science and Engineering*, 8 (3) , pp. 245-254

28- M. T. Namini, Abdehagh, N., Heydarian, S. M., Bonakdarpour, B., **Zare, D.** (2012) Hydrogen Sulfide Removal Performance of a Bio-trickling Filter Employing Thiobacillus thioautotrophicus Immobilized on Polyurethane Foam under Various Starvation Regimes. *Biotechnology and Bioprocess Engineering* 17: 000-000, DOI 10.1007/s12257-012-0035-0

29- **Zare, D.**, Muhammad, K., Bejo, M. H. B., & Ghazali, H. M. (2012) Development and validation of an ion-pair chromatographic method for simultaneous determination of *trans*- and *cis*- urocanic acid in fish samples. *Journal of Chromatography A*, 1256, 144-149.

30- **Zare, D.**, Muhammad, K., Bejo, M. H. B., & Ghazali, H. M. (2013) Changes in urocanic acid, histamine, putrescine and cadaverine levels in Indian mackerel (*Rastrelliger kanagurta*) during storage at different temperatures. *Food Chemistry*, 139, 320-325.

31- Mohammadi, S., Heydarian, S. M., Mazaheri Assadi, M. Jahangiri, M. & **Zare, D** (2014) Vacuum residue bio-degradation using a bubble column fermentor, *Petroleum Science and Technology*, 32, 75-83

32- **Zare, D.**, Muhammad, K., Bejo, M. H. B., & Ghazali, H. M. (2015) Determination of urocanic acid, a compound implicated in histamine toxicity and assessment of biogenic amines relation to urocanic acid content in selected fish and fish products, *Journal of Food Composition and Analysis*, 37, 95-103

- 33- **Zare, D.**, Muhammad, K., Bejo, M. H. B., & Ghazali, H. M. (2015) Determination of trans- and cis-urocanic acid in relation to histamine, putrescine and cadaverine contents in tuna (*Auxis thazard*) at different storage temperatures, *Journal of Food Science*, 80(2):479-483
- 34- Ezzat, M.A., **Zare D.**, Karim, R. and Ghazali, H.M. (2015) *Trans*- and *cis*-urocanic acid, biogenic amine and amino acid contents in *ikan pekasam* (fermented fish) produced from Javanese carp (*Puntius gonionotus*) and black tilapia (*Oreochromis mossambicus*), *Food Chemistry*, 172, 893-899
- 35- **Zare, D.** & Ghazali, H. M. (2015) Assessing the quality of sardine based on biogenic amines using a fuzzy logic model, *Food Chemistry*, 221, 936–943
- 36- Poursefollah, A., Zare, D. & Mirzaei, M. (2018) Combined Encapsulation of *Bifidobacterium bifidum* and Beta-Carotene Using Casein-Carrageenan and Estimation of their Durability during Storage and in Simulated Gastric Acid Situation. *Food Technology & Nutrition*, 5 (4) 1-17
- 37- Dani, N., **Zare, D.**, Mazaheri, M., Soltani, N. & Irani, S. H. (2016) Screening of microalgae for lipid production. The 17th International and Iranian Congress of Microbiology. 23-25 August. Tehran University.
- 38- **Zare, D.** & Taghizadeh, T. (2016) Optimization of okara fermentation and production of burger from fermented okara, *Journal of Applied microbiology in Food Industry*, 2 (1): 25-38
- 39- Bagheri, F. & **Zare, D.** (2018) Intestinal microbiome and related diseases: A recent updated review. *Bioscience Biotechnology. Research. Communication*. 11(1): 89-96
- 40- Shariati, S. **Zare, D.** & Mirdamadi, S. (2019) Screening of carbon and nitrogen sources using mixture analysis designs for carotenoid production by *Blakeslea trispora*. *Food Science and Biotechnology*, 28 (2), 469-479. DOI: 10.1007/s10068-018-0484-0

41- M Mirzaei, S Mirdamadi, M Safavi, **D Zare**, M Hadizadeh, M M Asadi. (2019) In vitro and cellular antioxidant activity evaluation of novel peptides derived from *Saccharomyces cerevisiae* protein hydrolysate: structure–function relationship. Amino Acids.51(8):1167-1175. doi: 10.1007/s00726-019-02752-z.

42- Azizi M., **D. Zare.**, Akhavan AS., Azin M (2019) Increasing beta carotene production by *Blakeslea trispora* using addition of *Serratia marcescens*. 3rd international and 15th national biotechnology congress of Islamic republic of Iran. 3-5 September, Tehran, Iran

43- **D. Zare**, Enshaeeyeh, M (2019) Miscellaneous Methods for the Detection of Biogenic amines. In: Biogenic Amines in Food, eds : S. Bahruddin and Tofalo R., Royal Society of Chemistry, Cambridge, CB4 0WF, UK

Research Activities:

1- Production of SCO from whey (assistant researcher). 1994-1996. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.

2- Production of Tylosin by *Streptomyces fradiae* (executive researcher). 1998-1999. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.

3- Pilot plant scale production of *Bacillus thuringiensis* M-H-14 (assistant researcher) 1989-Continued. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.

4- Pilot-scale production of L-lysine(assistant researcher).1998-2000. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran. IRAN.

5- Pilot-scale production of microbial rennet. 1999-2001. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.

- 6- Production of Beta carotene by *Blakeslae trispora*. 1999-2001. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 7- Pilot scale production of Tofu and Tempeh (executive researcher). 2004-2006. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 8- Pilot scale production of Lactic acid by *Lactobacillus*, (assistant researcher). 2002-2004. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 9- Pilot scale extraction of Tannin and production of edible Mushrooms from Pistachio (assistant researcher). 1997-1999. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 10- Pilot scale of SCP production for Fish food. (assistant researcher). 2002-2004. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 11- Enhance of alchole production from molasses (assistant researcher). 2003-2005 Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 12- Enhance of glucoamylase production by mutation & selection from *A.orysea* (supervisor) 1998-1999. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 13- Production of SCP from whey (supervisor) 2002. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 14- Pilot scale of H₂S biofilteration by *Thiobacillus sp.* (assistant researcher). 2005-2007. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 15- Isolation and screening of microorganisms in order to biolightening of Vacuum bottom residue. (executive researcher). 2008- 2010, Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.

- 16- Biolightening of Vacuum bottom residue in pilot plant. (executive researcher) 2008-2010
Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 15- Isolation of *Lactobacillus* Bacteria from yoghurts. (assistant researcher). 2007-2009.
Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.
- 16- HPLC analysis of *trans*- and *cis*-urocanic acid in fish samples. (executive researcher). 2009-
2012. Faculty Food Science & Technology, University Putra Malaysia
- 17- HPLC analysis of biogenic amines in fish samples. (executive researcher). 2009-2012. Faculty
Food Science & Technology, University Putra Malaysia
- 18- Enhancement of beta carotene production using fed batch method in *Blakeslea trispora*,
(executive researcher). 2014-at present. Biotechnology Center. Iranian Research Organization for
Science & Technology. Tehran, IRAN.
- 19- Screening of microalgae for production of bioplastic and lipid. (executive researcher). 2014-
at present. Biotechnology Center. Iranian Research Organization for Science & Technology.
Tehran, IRAN.
- 20- Screening of bacteria for production of bioplastic and lipid. (executive researcher). 2014-at
present. Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran,
IRAN.
- 21- Optimization of Kefir grain for production of kefir. (executive researcher) 2018-at present,
Biotechnology Center. Iranian Research Organization for Science & Technology. Tehran, IRAN.

Executive responsibilities:

- 1- Head of Biotechnology Laboratory. 1996-2003.
- 2- Head of Biotechnology Pilot plant. 2005-2000

3- Deputy of Department of Biotechnology at IROST, 2014-2018

4- Head of Biotechnology Pilot plant. 2018-at present

5- Head of graduate school of Irost. 2020- at present

Scientific Adviser to:

- Biotechnology Scientific Group, Biotechnology Center, IROST.

- Biotechnology Committee, Khawrazmi Scientific Award, IRAN. 1997-at present

- Biotechnology Committee, Young Khawrazmi Scientific Award, IRAN. 2002-at present

Teaching Experiences:

- **Industrial Microbiology**, University of Science & Technology. (M.Sc students), Tehran, Iran. 1998-1999.

- **Biotechnology**, Institute Pasteur of IRAN, (PhD students), Tehran, Iran. 1996-2000

- **Industrial Microbiology**, Tehran University, school of science (PhD students), Tehran, Iran. 2002-2005.

- **Industrial microbiology**. Tehran University, School of medical science (PhD students), Tehran, Iran. 2002-2005.

- **Industrial Microbiology**, University of Shahed, (B.Sc students), 2014-at present

- **Statistic and design of experiment**, Iranian Research Organization for Science and Technology, 2014-at present

- **Industrial Microbiology**, Safadasht Azad University, (M.Sc students), 2015-2017

- **Industrial Microbiology**, Ghods Azad University, (M.Sc students), 2016-2017

- **Fermentation Industry**, Ghods Azad University, (Bachelor students), 2017

Workshops:

- International workshop for Technology up gradation on food, leather, pulp & paper (Participant) 1998. Iranian Research Organization for Science & Technology, Mashhad. Iran.
- Workshop on Microbiology monitoring of coastal waters (participant) 2002. Kuwait.
- International workshop for ethanol production. (participant) 2008. Gazvin. Iran.
- Workshop on HPLC Waters, (participant), 2011, Kuala Lumpur, Malaysia
- Workshop TLC Merck, (participant), 2011, Kuala Lumpur, Malaysia
- Workshop of Design of experiment using Response Surface Methodology (executive), 2016 Tehran. Iran
- The place of biotechnology in modern science (executive), 2016 Azad University of Safadasht Tehran. Iran
- Commercialization of knowledge based projects (executive), 2017 Azad University of Safadasht Tehran. Iran