## مشخصات فردى

نام : Darvishi نام خانوادگی : Darvishi تاریخ تولد :
PHD درجه / رتبه : Professor درجه / رتبه : Professor شروع به خدمت : ۲۰۱۰ تلفن مستقیم : ۴۱۳۷۲۷۸۹۰۰ تلفن داخلی : ۱۰۷۰ تلفن مستقیم : ۴.۱۳۷۲۷۸۹۰۰ تلفن داخلی : ۲۰۱۰ تلفن داخلی : ۲۰۱۰ تلفن داخلی : ۲۰۱۰ تلفن مستقیم : ۱۵۷۰ شوبایل : موبایل : PHD تحصیل : PHD محل تحصیل :



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بیوگرافی

توضيحات

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My profile in ResearchGate: www.researchgate.net/profile/Farshad\_Darvishi

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## University of Maragheh (Feb. 2019 to Present)

**Professor** 

Faculty of Scince, Department of Biology

Academic staff (lecturer and researcher), Head of Microbial Biotechnology and Bioprocess Engineering group (MBBE)

### University of Maragheh (Dec. 2014 to Feb. 2019)

**Associate Professor** 

Faculty of Scince, Department of Biology

Academic staff (lecturer and researcher), Head of Microbial Biotechnology and Bioprocess Engineering group (MBBE)

## University of Maragheh (Sep. 2010 to Dec. 2014)

**Assistant Professor** 

Faculty of Scince, Department of Biology

Academic staff (lecturer and researcher), Head of Microbial Biotechnology and Bioprocess Engineering group (MBBE)

سوابق تحصيلي

تاریخ ایجاد : سوم آبان ۱۳۹۵

اختر اعات

کارگاہ ھا

علايق

My main interest is biotechnological and environmental applications of yeasts. My research group is active in the following areas:

- New and powerful methods for strain characterization (X-Omics such as genomics, metagenomics, transcriptomics, proteomics, metabolomics, lipidomics, fluxomics) and improvement (such as metabolic engineering, reverse metabolic engineering, systems biology, synthetic biology).
- Heterologous proteins expression in Saccharomyces cerevisiae, Yarrowia lipolytica, Pichia pastoris and other nonconventional yeasts.
- Biotechnologically valuable products (such as lipase, laccase, glucose oxidase, asparaginase, glutaminase enzymes, and citric acid, isocitric acid, single cell protein, single cell oil,...) production using *Yarrowia lipolytica* from renewable sources and wastes.
- Enzyme immobilization on nanomaterials (magnetic nanoparticles and nanocomposite) and its kinetics study.
- Microbial biofules and bioelectricity production.
- Isolation and biodiversity study of yeasts.

طرح درس

زمینه های پژوهشی

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همکاری با تحریریه مجلات علمی

پروژه های تحقیقاتی خارج از دانشگاه

يروژه های تحقیقاتی

عضویت در کمیته ها و شوراها

عضویت در مجامع علمی و انجمن ها

تشويق ها

پست های اجرایی

سوابق تدريسي

#### **Graduate courses**

- Fermentation Technology University of Maragheh (Fall semester 2014 continued).
- Methods in Biotechnology University of Maragheh (Fall semester 2014 continued).
- Nanobiotechnology University of Maragheh (Fall semester 2013 continued).
- Biochemical Engineering University of Maragheh (Winter semester 2012 2014).
- Biotechnology of Fermentation Processes University of Maragheh (Fall semester 2012 2014).

# Undergraduate courses

- Biochemical Engineering and Fermentation Process University of Maragheh (Fall semester 2016 continued)
- Microbial Biotechnology University of Maragheh (Fall semester 2012 2014)
- Bacteriophages University of Maragheh (Fall semester 2012- 2014).
- English for the Students of Microbiology University of Maragheh (Fall semester 2011 continued).
- Bacterial Taxonomy (2) and Bacterial Taxonomy (2) Lab University of Maragheh (Fall semester 2011 2015).
- Environmental Microbiology and Environmental Microbiology Lab University of Maragheh (Winter semester 2011 continued).
- Industrial Microbiology and Industrial Microbiology Lab University of Maragheh (Fall semester 2010 continued).
- Food Microbiology and Food Microbiology Lab University of Maragheh (Fall semester 2010 continued).

مقالات ارائه شده

#### **Refereed Journal Articles**

- 1. **Darvishi F**, Faraji N, Shamsi F. 2019. Production and structural modeling of a novel asparaginase in *Yarrowia lipolytica*. *International Journal of Biological Macromolecules*, 125, 955-961. DOI: 10.1016/j.ijbiomac.2018.12.162.
- 2. **Darvishi F**, Abolhasan Moghaddami N. 2019. Optimization of an industrial medium from molasses for bioethanol production using the Taguchi statistical experimental-design method. *Fermentation*, 5 (1), 14. DOI: 10.3390/fermentation5010014.
- 3. **Darvishi F**, Moradi M, Madzak C, Jolivalt C. 2018. Laccase production from sucrose by recombinant/*arrowia lipolytica* and its application to decolorization of environmental pollutant dyes. *Ecotoxicology and environmental safety*, 165, 278-283. DOI: 10.1016/j.ecoenv.2018.09.026.
- 4. Fathi Z, Doustkhah E, Rostamnia S, Darvishi F, Ghodsi A, Ide Y. 2018. Interaction of *Yarrowia lipolytica* lipase with dithiocarbamate modified magnetic carbon Fe3O4@C/DTC core-shell nanoparticles *International Journal of Biological Macromolecules*, 117: 218-224. DOI: 10.1016/j.ijbiomac.2018.05.156.
- Darvishi F, Zarei A, Madzak C. 2018. In silico and in vivo analysis of signal peptides effect on recombinant glucose oxidase production in nonconventional yeast *Yarrowia lipolytica*. World Journal of Microbiology and Biotechnology, 34: 128. DOI: 10.1007/s11274-018-2512-x.
- 6. Zavareh S, Farrokhzad Z, **Darvishi F**. 2018. Modification of zeolite 4A for use as an adsorbent for glyphosate and as an antibacterial agent for water. *Ecotoxicology and Environmental Safety*, 155: 1-8. DOI: 10.1016/j.ecoenv.2018.02.043.
- 7. **Darvishi F**, Ariana M, Marella ER, Borodina I. 2018. Advances in synthetic biology of oleaginous yeast *Yarrowia lipolytica* for producing non-native chemicals. *Applied Microbiology and Biotechnology*, 102: 5925–5938. DOI: 10.1007/s00253-018-9099-x.
- 8. **Darvishi F**, Fathi Z, Ariana M, Moradi H. 2017. *Yarrowia lipolytica* as a workhorse for biofuel production. *Biochemical Engineering Journal*, 127: 87-96. DOI: 10.1016/j.bej.2017.08.013
- Khadivi derakhshan F, Darvishi F, Dezfulian M, Madzak C. 2017. Expression and characterization of glucose oxidase from Aspergillus niger in Yarrowia lipolytica. See comment in PubMed Commons belowMolecular Biotechnology 59 (8): 307-314. DOI: 10.1007/s12033-017-0017-8
- 10. Heidarizadeh M, Doustkhah E, Rostamnia S, Fathi Rezaei P, Darvishi F, Zeynizadeh B. 2017. Dithiocarbamate to modify magnetic graphene oxide nanocomposite (Fe<sub>3</sub>O<sub>4</sub>-GO): A new strategy for covalent enzyme (lipase) immobilization to fabrication a new nanobiocatalyst for enzymatic hydrolysis of PNPD. *International Journal of Biological Macromolecules*, 101: 696-702. DOI: 10.1016/j.ijbiomac.2017.03.152
- 11. **Darvishi F**, Moradi M, Madzak C, Jolivalt C. 2017. Production of laccase by recombinant *Yarrowia lipolytica* from molasses: Bioprocess development using statistical modeling and increase productivity in shake-flask and bioreactor cultures. *Applied Biochemistry and Biotechnology*, 181: 1228-1239. DOI: 10.1007/s12010-016-2280-8
- 12. Mahdavinia GR, Hosseini R, **Darvishi F**, Sabzi M. 2016. The release of cefazolin from chitosan/polyvinyl alcohol/sepiolite nanocomposite hydrogel films. *Iranian Polymer Journal*, 25 (11): 933–943. DOI: 10.1007/s13726-016-0480-2
- 13. Mahdavinia GR, Mousanezhad S, H Hosseinzadeh, Darvishi F, Sabzi M. 2016. Magnetic hydrogel beads based on PVA/sodium alginate/laponite RD and studying their BSA adsorption. *Carbohydrate Polymers*, 147: 379–391. DOI: 10.1016/j.carbpol.2016.04.024
- 14. Zavareh S, Zarei M, Darvishi F, Hasan Azizi. 2015. As(III) adsorption and antimicrobial properties of Cu-chitosan/alumina nanocomposite. *Chemical Engineering Journal*, 273: 610–621. DOI: 10.1016/j.cej.2015.03.112
- Zavareh S, Darvishi F. Samandari G. 2015. Preparation and characterization of epoxy/oregano oil as a new epoxy-based coating material with both antimicrobial effect and increased toughness. *Journal of Coatings Technology and Research*, 12 (2): 610–621. DOI: 10.1007/s11998-014-9641-4
- 16. **Darvishi F**, Hosseini B. 2015. Investigation the effect of olive oil feeding strategies on *Yarrowia lipolytica* lipase production. *Biological Journal of Microorganism*, 4 (15): 1-8.
- 17. **Darvishi F**, Hosseini B, Fathirezaei P. 2015. Optimization of *Yarrowia lipolytica* lipase production by Taguchi experiment design method. *Iranian Biology Journal*, 28 (3): 336-343.
- 18. **Darvishi F**, Hosseini B. 2015. Effect of olive oil with different purity grades on *Yarrowia lipolytica* lipase production. *Biological Journal of Microorganism*, 4 (13): 35-42.
- 19. Khodaei A, Arzanlou M, Babai-Ahari A, **Darvishi F**. 2014. Identification of black Aspergilli species on grape and raisin in Southern regions of East and West Azerbaijan Provinces. *Journal of Applied researches in Plant Protection*, 3(1): 49-64.
- 20. **Darvishi F**, Destain J, Nahvi I, Thonart P, Zarkesh-Esfahani H. 2012. Effect of additives on freeze-drying and storage of *Varrowia lipolytica* lipase. *Applied Biochemistry and Biotechnology*, 168: 1101–1107. DOI: 10.1007/s12010-012-9844-z
- 21. **Darvishi F**. 2012. Expression of native and mutant extracellular lipases from *Yarrowia lipolytica* in *Saccharomyces cerevisiae*. *Microbial Biotechnology*, 5 (5): 634-641. DOI: 10.1111/j.1751-7915.2012.00354.x
- 22. Mirbagheri M, Nahvi I, Emtiazi G, Mafakher L**Darvishi F.** 2012. Taxonomic characterization and potential biotechnological applications of *Yarrowia lipolytica* isolated from meat and its products. *Jundishapur Journal of Microbiology*, 5 (1): 346-351. DOI: 10.5812/kowsar.20083645.2433
- 23. Mirbagheri M, Nahvi I, Emtiazi G, Darvishi F. 2011. Enhanced production of citric acid in *Yarrowia lipolytica* by Triton X-100. *Applied Biochemistry and Biotechnology*, 165: 1068-1074. DOI: 10.1007/s12010-011-9325-9
- 24. **Darvishi F**, Destain J, Nahvi I, Thonart P, Zarkesh-Esfahani H. 2011. High-level production of extracellular lipase by *Yarrowia lipolytica* mutants from methyl oleate. *New Biotechnology*, 28 (6): 756-760. DOI: 10.1016/j.nbt.2011.02.002
- 25. **Darvishi F**, Nahvi I, Zarkesh-Esfahani H. 2011. Lipase production by *Yarrowia lipolytica* from different carbon sources. *Iranian Journal of Biology*, 24 (2): 169-175.
- 26. Mirbagheri M, Nahvi I, Emtiazi G, Darvishi F. 2011. Isolation and identification of citric acid producing yeast to use in industry. *JMBS*, 2 (1): 77-89.
- 27. **Darvishi F**, Nahvi I, Zarkesh-Esfahani H. 2011. Investigation of nitrogen sources effect on lipase production of *Yarrowia lipolytica* yeast. *JMBS*, 2 (1): 45-53.
- 28. Mafakher L, Mirbagheri M, **Darvishi F**, Nahvi I, Zarkesh-Esfahani H, Emtiazi G. 2010. Isolation of lipase and citric acid producing yeasts from agro-industrial wastewater. *New Biotechnology*, 27 (4): 337-340. DOI: 10.1016/j.nbt.2010.04.006
- 29. **Darvishi F**, Nahvi I, Zarkesh-Esfahani H, Momenbik F. 2009. Effect of plant oils upon lipase and citric acid production in *Yarrowia lipolytica* yeast. *BioMed Research International (Journal of Biomedicine and Biotechnology)* 2009, 562943. DOI:10.1155/2009/562943

- 30. **Darvishi F**, Hojati Z, Motovali-bashi M. 2006. Rapid isolation and molecular detection of streptomycin-producing streptomycetes *JSSU*, 14 (2): 51-55.
- 31. **Darvishi F**, Golbang N, Hojati Z, Motovali-bashi M. 2006. Isolation of the Streptomycin antibiotic production regulatory gene. *(trR)* by PCR. *Iranian Journal of Biology*, 19 (3): 264-271.

#### Refereed conference articles (oral and poster)

- 1. **Darvishi F**, Moghaddami N. Isolation and identification of bioethanol producer *Saccharomyces cerevisiae* from Iran's alcohol producer manufactures. The 20th National and 8th International Congress of Biology. 22-24 August 2018, Maragheh, Iran.
- 2. Ashengroph M, **Darvishi F**, Mohammadi E. Intra- and extra-cellular biosynthesis of silver nanoparticles by *Yarrowia lipolytica*. The 20th National and 8th International Congress of Biology. 22-24 August 2018, Maragheh, Iran.
- 3. **Darvishi F**, Moghaddami N. Optimization of ethanol production by industrial strain of *Saccharomyces cerevisiae*. The 20th National and 8th International Congress of Biology. 22-24 August 2018, Maragheh, Iran.
- 4. Abbasi F, Abadi M, Asadollahi M, **Darvishi F**. Microbial production of xanthan gum by *Xanthomonas campestris* using acorn starch as carbon source. The 20th National and 8th International Congress of Biology. 22-24 August 2018, Maragheh, Iran.
- 5. **Darvishi** F, Faraji N. Investigation of the L-Glutaminase production in the yeast *Yarrowia lipolytica*. The 19th National and 7th International Congress of Biology. 30 August-1 September 2016, Tabriz, Iran.
- 6. **Darvishi F**, Salmani N. Evaluation of single cell oil production in the yeast *Yarrowia lipolytica*. The 19th National and 7th International Congress of Biology. 30 August-1 September 2016, Tabriz, Iran.
- 7. Shamsi F, **Darvishi F**. Optimization of the L-Asparaginase production in the yeast *Yarrowia lipolytica* using Taguchi experimental design method. The 19th National and 7th International Congress of Biology. 30 August-1 September 2016, Tabriz, Iran.
- 8. **Darvishi F**, Shamsi F. Evaluation of the L-Asparaginase production in the yeast *Yarrowia lipolytica*. The 19th National and 7th International Congress of Biology. 30 August-1 September 2016, Tabriz, Iran.
- Moradi M, Darvishi F, Madzak C, Jolivalt, C. Laccase production from sucrose by recombinant *Yarrowia lipolytica*. The 17th International & Iranian Congress of Microbiology. 23-25 August 2016, Tehran, Iran.
- 10. Khadivi derakhshan F, **Darvishi F**, Madzak C. Isolation and cloning of *Aspergillus niger* glucose oxidase in *Yarrowia lipolytica* expression monocopy vector. The 17th International & Iranian Congress of Microbiology. 23-25 August 2016, Tehran, Iran.
- 11. Moradi M, **Darvishi F**, Madzak C, Jolivalt, C. The use of recombinant laccase of *Yarrowia lipolytica* for decolorization of environmental pollutant dyes. The 17th International & Iranian Congress of Microbiology. 23-25 August 2016, Tehran, Iran.
- 12. Moradi M, **Darvishi F**, Madzak C, Jolivalt, C. Effect of different substrates on heterologous production of a fungal laccase in a recombinant strain of *Yarrowia lipolytica*. The 16th International & Iranian Congress of Microbiology. 25-26 August 2015, Tehran, Iran.
- 13. **Darvishi F.** Effect of oleic and alkane compounds on *POX2* promoter induction in *Yarrowia lipolytica* yeast. The 13th Iranian & the Second International Congress of Microbiology. 14-16 July 2012, Ardabil, Iran.
- 14. Mafakher L, Nahvi I, Zarkesh-Esfahani H, Mirolyaei M**Darvishi F**. *Candida galli*, newly isolated lipolytic yeast from wastewater treatment plant of Isfahan. The 12th Iranian and 1st International congress of Microbiology, May 2011, University of Kermanshah, Iran.
- 15. **Darvishi F**, Nahvi I, Ziaee S. Expression of native and mutant extracellular lipase from *Yarrowia lipolytica* in *Saccharomyces cerevisiae*. 6th conference on Recombinant protein production. 16 19 February 2011, Vienna, **Austria**.
- 16. Mirbagheri M, Nahvi I, Emtiazi G, Darvishi F. Isolation of native high-level citric acid producing yeasts. The 2nd national congress of biology young scientists, February 2011, Tehran, Iran.
- 17. **Darvishi** F, Destain J, Nahvi I, Thonart P, Zarkesh-Esfahani H. Effect of additives on freeze-drying and storage of *larrowia lipolytica* lipase. 14th International Biotechnology Symposium and Exhibition. 14 18 September 2010, Rimini, *Italy*. Published in Journal of Biotechnology, Vol.150, Supplement 1, November 2010, Page 352.
- 18. Mafakher L, Zarkesh-Esfahani H, Nahvi I, Mirolyaei M**Darvishi F**. Study of lipolytic yeasts population on meat products. The 11th Iranian congress of Microbiology, April 2010, Lahijan, Iran.
- 19. Mafakher L, **Darvishi F**, Nahvi I, Zarkesh-Esfahani H, Mirolyaei M. Application of lipolytic yeasts for wastewater treatment plant. International conference on water & wastewater treatment, April 2010, University of Isfahan, Iran.
- 20. **Darvishi F**, Mafakher L, Nahvi I, Zarkesh-Esfahani H, Mirolyaei M. Investigation of lipase enzyme production by different strains of *Iipolytica*. The 10th Iranian congress of Microbiology, 21 23 April 2009, Ilam, Iran.
- 21. Habibi E, **Darvishi** F, Ahmadi A. Nanostructures and drug delivery. The 2nd National Congress of biology students, 3 5 May 2006, Mashhad, Iran.
- 22. Habibi E, **Darvishi F**, Ahmadi A. Significance of synthetic nanostructures in dictating cellular response. The 2nd National Congress of biology students, 3 5 May 2006, Mashhad, Iran.
- 23. Habibi E, **Darvishi F**, Ahmadi A. Biomedical application of nanotechnology for drug targeting and gene therapy. The 2nd National Congress of biology students, 3 5 May 2006, Mashhad, Iran.
- 24. **Darvishi F**, Hojati Z, Motovali-bashi M. Isolation of the streptomycin-producing streptomycetes from Iranian soil in order to genetically modify them. The 13th Iranian biology conference and the first international conference of biology, 23 25 August 2005, Rasht, Iran.
- 25. Habibi E, **Darvishi** F. Nanotechnology for overcoming biological barriers. The 1st National Congress of biotechnology students, 15 17 December 2005, Tehran, Iran.
- Hojati Z, Darvishi F. Genetic engineering of streptomycetes for novel generation antibiotics production. The 1st National Congress of biology students, 21 - 23 May 2003, Mashhad, Iran.
- 27. Emtiazi G, **Darvishi** F. Application of pizophilic bacteria in biotechnology. The 1st National Congress of biology students, 21 23 May 2003, Mashhad, Iran.
- 28. **Darvishi** F, Najafi F. Single cell protein production from rice bran by *Saccharomyces cerevisiae*. The 1st National Congress of biology and biotechnology students, 17 19 September 2002, Tehran, Iran.

برنامه درسی ترم جاری برنامه آموزشی سایر

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