

Your Name: Fatemeh Yazdian

Assistant Professor

Faculty of New Sciences and Technologies, University of Tehran

Personal Details

Address	Faculty of New Sciences and Technologies, University of Tehran, North Karegar Ave., Tehran, Iran
Date of Birth	11.9.1978
Language	English: upper intermediate Germany: elementary French: elementary
Voice	-

Education

1997- 2001)

B.Sc. in Chemical Engineering-Process design

Chemical Engineering Group, Faculty of Engineering, University of Tehran

(2002- 2004)

M.Sc. in Chemical Engineering-Biotechnology

Biotechnology Group, Faculty of Chemical Engineering, Tarbiat Modares University

(2005- 2009)

PhD. in Chemical Engineering-Biotechnology

Biotechnology Group, Faculty of Chemical Engineering, Tarbiat Modares University

Research Interests

(1997- 2001)

- Study of energy optimization in sugar factories (B.Sc. degree)
Chemical Engineering Group, Faculty of Engineering, University of Tehran, Iran

(2002- 2004)

- Production of bioprotein from natural gas (M.Sc. degree)
Biotechnology Group, Faculty of Chemical Engineering, Tarbiat Modares University, Iran

(2005- 2009)

- Study of process variables on bio-protein production from natural gas in loop bioreactors (PhD. degree)
Biotechnology Group, Faculty of Chemical Engineering, Tarbiat Modares University, Iran

(2000- 2008)

- Production of biopolymer from natural gas
- Study of bio-surfactant production
- Production of TAED in pilot scale
- Study of using gas biosensors in Gas industries
- Study of MEOR
- Design of Drying Equipment in pilot scale
- Removing of phenol by Peroxidase Enzyme
- Removing of oil pollution by biomaterials
- MSB (drug loading)*

*Friedrich-Alexander University of Erlangen - Nürnberg

(2008- 2011)

- Evaluation of optimum ratio of oil/water in biometallization process
- Evaluation of optimum ratio of diesel oil/water in bio-desulfurization process
- Evaluation of bio-corrosion in gas tubes (modeling and simulation)

(2008- 2011¹)

- Design and construction of H₂S biosensor
- Consideration of sludge removing by nano-biosurfactan

¹ Up to now

(2011-²)

- Pharmaceutical Metabolites

Journal Papers

- 1) **F. Yazdian**, S. Hajizadeh, S.A. Shojaosadati, M. Jahanshahi, R. Khalilzadeh, M. Nosrati (2005) Production of Single Cell Protein (SCP) from Natural Gas; Parameter Optimization and RNA evaluation. *Iranian Journal of Biotechnology*, 3, 235-242.
- 2) **F. Yazdian**, S.A. Shojaosadati, M. Nosrati, M.R. Mehrnia, E. Vasheghani-Farahan. (2009) Study of geometry and operational conditions on mixing time, gas hold up, mass transfer and biomass production from natural gas in a horizontal tubular loop bioreactor. *Chemical Engineering Science*, 64, 540-547.
- 3) **F. Yazdian**, S.A. Shojaosadati, M. Nosrati, M. PesaranHajiabbas, E. Vasheghani-Farahani. (2009) Investigation of gas properties, design, and operational parameters on hydrodynamic characteristics, mass transfer, and biomass production from natural in an external airlift loop bioreactor. *Chemical Engineering Science*, 64, 2455-2465.
- 4) **F. Yazdian**, S.A. Shojaosadati, M. Nosrati, KH. Malek, M.R. Mehrnia. (2009) On-line measurement of dissolved methane concentration during methane fermentation in a loop bioreactor. *Iran. J. Chem. Chem. Eng*, 28, 13-21.
- 5) **F. Yazdian**, M. PesaranHajiabbas, S.A. Shojaosadati, M. Nosrati, E. Vasheghani-Farahani, M.R. Mehrnia. (2010) Study of hydrodynamic, mass transfer and energy consumption for biomass production from natural gas in a vertical tubular loop bioreactor. *Biochemical Engineering Journal*, 49, 192-200.
- 6) Z.S. Aghamiri, M.R. Mehrnia, S.A. Shojaosadati, SH. Fatemi, **F. Yazdian**. (2010) Mathematical modeling of a horizontal tubular loop bioreactor for biomass production from natural gas. *Process Biochemistry*, 45, 1393-1400.
- 7) Gh. Amoabediny, M. Rezvani, H. Rashedi, S. Jokari, P. Chamanrokh, M. Mazaheri, M. Ghavami, **F. Yazdian**. (2010) Application of a novel method for optimization of bioemulsan

² Up to now

production in a miniaturized bioreactor. *Bioresource Technology*, 101, 9758-9764

- 8) **F. Yazdian**, S.A. Shojaosadati, M. Nosrati, E. Vasheghani-Farahani, M.R. Mehrnia. (2010) Comparison of loop bioreactors based on hydrodynamic and mass transfer characteristics for biomass production from natural gas. *Iran. J. Chem. Chem. Eng.*, 29, 37-57.
- 9) S. M. Mousavi, S.A. Shojaosadati, J. Golestani, **F. Yazdian**. (2010) CFD simulation and optimization of effective parameters for biomass production in a horizontal tubular loop bioreactor. *Chemical Engineering and processing*, 49, 1249-1258
- 10) M. Roayaei Ardakani, A. Aminsefat, B. Rasekh, **F. Yazdian**, B. Zargar, M. Zarei, H. Najafzadeh. (2010). Biodesulfurization of DBT by a newly isolated, *Stenotrophomonas maltophilia* strain Kho1. *World Applied Science Journal* ISSN 1818-4952, 10, 272-278.
- 11) Z. Azimzadeh, **F. Yazdian**, Gh. Mohebbali, M. Soheili, MR. Mehrnia. (2011). Determination of growth kinetic parameters of a desulfurizing bacterium *Gordonia alkanivorans* rpi90a. *Chemical Engineering Transactions*, 24, 937-942. DOI: 10.3303/CET1124157.
- 12) Z. Azimzadeh, MR. Mehrnia, **F. Yazdian**, M. Soheili, Gh. Mohebbali, B. Rasekh. (2011) Analysis of Petroleum Biodesulfurization in an Airlift Bioreactor Using Response Surface Methodology *Bioresource Technology*, 102, 10585-10591
- 13) **F. Yazdian**, S.A. Shojaosadati, M. Nosrati, E. Vasheghani-Farahani, M.R. Mehrnia. (2012) Mixing studies in loop bioreactors. *Iran. J. Chem. Chem. Eng*, 31, 91-101.
- 14) F. Rahnamaa, E. Vasheghani-Farahani, **F. Yazdian**, S.A. Shojaosadati. (2012). PHB production by *Methylocystis hirsuta* from natural gas in a bubble column and a vertical loop bioreactor. *Biochemical Engineering Journal*, 65, 51-56.
- 15) S. Jokar, H. Rashedi, GH. Amoabediny, **F. Yazdian**, M. Rezvani, Ash. Hatamian Zarmi, (2012). Effect of aeration rate on biosurfactin production in a miniaturized bioreactor, *INT J ENVIRON RES.*, 6, 627-634
- 16) Fatemeh Ebrahimi, Simin Naghizadeh, Hamid Rashedi, **Fatemeh**

Yazdian, Ghassem Amoabediny, Soheila Sheibani, Ashraf S., Hatamian Zarmi, (2012). Capability Evaluation of Rhamnolipid Biosurfactant purified by Magnetic Iron Oxide Nanoparticles for Emulsification of Water/n-decane Mixture. *New Biotechnology*, <http://dx.doi.org/10.1016/j.nbt.2012.08.435>

17) Simin Naghizadeh, Hamid Rashedi, **Fatemeh Yazdian**, Ghassem Amoabediny, Mansour Hajibapir, Fatemeh Ebrahimi, Soheila Sheibani, Ashraf S. Hatamian Zarmi, (2012). Recovery and Purification of Rhamnolipid from fermentation broth, by use of a Nanotechnology Process, *New Biotechnology*, <http://dx.doi.org/10.1016/j.nbt.2012.08.436>

18) M. Hassanzadeh, M. Kambarani, L. Taebi, **F. Yazdian**, (2012). Kinetic study of sodium cocoyl sarcosinate synthesis and factors affecting the reaction on bench and pilot scale, *J. Sur. Deter.* 15

19) Seyed J. Ashrafi, Mahrokh F. Rastegar, Motahare Ashrafi, **Fatemeh Yazdian**, Reza Pourrahim, Anil K. Suresh. (2013). Influence of External Factors on the Production and Morphology of Biogenic Silver Nanocrystallites, *Journal of Nanoscience and Nanotechnology*, 13, 2295-2301.

20) Meisam Omid, M. A. Malakoutian, Mohammadmehdi Choolaei, F. Oroojalian, F. Haghirsadat, **F. Yazdian**. (2013). A Label-Free Detection of Biomolecules Using Micromechanical Biosensors. *CHIN. PHYS. LETT.*, 6, 068701-1 to 4.

21) Meisam Omid, M. A. Malakotian, F. Haghirsadat, F. Oroojalian, **F. Yazdian**, M. Azhdari, (2013). Quantitative Measurement of Prostate Specific Antigen Using Microcantilever Sensors, *Iranian Journal of Biotechnology*

22) S. Bahari, Gh. Amoabedini, A.S. Hatamian Zarmi, **F. Yazdian**, (2013). Evaluation of Immobilization of Cytochrome c oxidase enzyme on a gold surface and its activity assay, *Iranian Journal of Biotechnology*

23) M. Esmaelifar, A.S. Hatamian Zaremi, M. Azizi, **F. Yazdian**, F. Oroojalian, (2013). Investigation of Antimicrobial Activity of Shiitake Extracts, An Edible Mushroom as A New Source of Natural Antibiotics, *Iranian Journal of Biotechnology*

- 24) F. Tazari, M. Rahaie, A. S. Hatamian zarmi, **F.Yazdian**, (2013). Application Of Proteomics Approach in Cancer and Infectious Diseases Studies, *Iranian Journal of Biotechnology*

- 25) M. Alipour, A.S. Hatamian Zaremi, **F. Yazdian**, S.M. Hoseini, (2013). Isolation and Characterization of Indigenous Methylophilic Microorganisms From Wastewater With Co-contamination by Petroleum Hydrocarbons and Heavy Metals. *Iranian Journal of Biotechnology*

- 26) A. Seyedin, **F. Yazdian**, M. Azizi, A.S. Hatamian Zaremi, F. Oroojalian, (2013). Antibacterial activity of medicinal fungus *monascus*, *Iranian Journal of Biotechnology*

- 27) F. Ghodoosi, E. Vasheghani Farahani, **F. Yazdian**, S.A. shojaosadati, (2013). PHB Production from Natural Gas by *Methylocystis hirsute*, *Iranian Journal of Biotechnology*

- 28) M. Esmaelifar, A.S. Hatamian Zaremi, M. Azizi, **F. Yazdian**, F. Oroojalian. (2013). Investigation of Antimicrobial Activity of Shiitake Extracts, An Edible Mushroom as A New Source of Natural Antibiotics, *Iranian Journal of Biotechnology*

Conference Papers

- 1) **Yazdian**, S. Hajizadeh, S.A. Shojaosadati, M. Jahanshahi, R. Khalilzadeh. (2004) Production of Single Cell Protein (SCP) from Natural Gas. National Chemical Engineering Congress, Tehran, Iran.

- 2) **S. Iranpour**, F. Yazdian, M. Malekshahi, M. Kambarani. (2005) Using biosensors in LABS. National Surfactant Congress, Isfahan, Iran.

- 3) **F. Yazdian**, F. Hormozi, S. Iranpour, R. Saghafi. (2005). Design of drying equipment for production of TAED in pilot scale. National Chemical Engineering Congress, Sistan Baluchestan, Iran.

- 4) **F. Yazdian**, S. Hajizadeh, S.A. Shojaosadati, M. Jahanshahi, R. Khalilzadeh. (2005) Consideration of some Nutrient Values of Produced Single Cell Protein (SCP) from Natural Gas. National Chemical Engineering Congress, Sistan Baluchestan, Iran.

- 5) **F. Yazdian**, S. Hajizadeh, S.A. Shojaosadati, R. Khalilzadeh. (2005)

Production and Optimization of Single Cell Protein (SCP) from Natural Gas. National Student Chemical Engineering Congress, Tehran, Iran.

- 6) **F. Yazdian**, M. PesaranHajiabbas, S.A. Shojaosadati, M. Nosrati, E. Vasheghani-Farahani, M.R. Mehrnia. (2007) Evaluation of gas hold-up and mixing time in loop bioreactors during production of Single cell protein (SCP) from natural gas. Biomicroworld, Seville, Spain
- 7) **F. Yazdian**, M. PesaranHajiabbas, S.A. Shojaosadati, M. Nosrati, E. Vasheghani-Farahani, M.R. Mehrnia. (2007) Investigation of mixing time, gas hold-up and flow regime in horizontal tubular loop bioreactor during production of Single cell protein (SCP) from natural gas. 5th National Biotechnology Congress, Tehran, Iran.
- 8) S. Iranpour, **F. Yazdian**, M. Malekshahi, M. Kambarani. (2007) Study and consideration of nano_biopigment by Biochemical oxidation method. National Nano Congress, Shiraz, Iran.
- 9) **F. Yazdian**, M. PesaranHajiabbas, S.A. Shojaosadati, F. Zajkaniha. (2008) Production of bioprotein by methanotroph bacteria. Second National Gas Congress, Tehran, Iran.
- 10) **F. Yazdian**, F. Zajkaniha, H. Bonyad, A.R. Amirsadeghi, M. Kambarani, K. khosravi. (2008) Biopolymer production from natural gas. Second National Gas Congress, Tehran, Iran.
- 11) Z.S. Aghamiri, M.R. Mehrnia, **F. Yazdian**, S.A. Shojaosadati, S.H. Fatemei. (2009) Mathematical modeling of the resistance time distribution in horizontal tubular loop bioreactor. 8th World Congress of Chemical Engineering, Canada
- 12) **F. Yazdian**, M. Azizi, M. Soheili. (2010) Investigation of kinetic parameters during biometallization of light crude oil. 14th International gas and oil congress, Tehran, Iran.
- 13) Z. Azimzadeh Irani, **F. Yazdian**, M. Soheili, Gh. Mohebbali, MR. Mehrnia. (2010). Different engineering technique of diesel oil biodesulfurization. 14th International gas and oil congress, Tehran, Iran.
- 14) Gh. Amoabediny, H. Rashedi, **F. Yazdian**, J. Büchs. (2011). A NEW METHOD TO QUANTIFY THE CO₂ SENSITIVITY OF YEASTS IN SHAKEN BIOREACTORS. NCY, Ukraine

15) Gh. Amoabediny, H. Rashedi, **F. Yazdian**, M. Azizi, M. Mirzaei. (2011). A COMPARISON BETWEEN IMMOBILIZED AND WET CELL IN MICROBIAL BIOSENSING SYSTEM FOR MONITORING HYDROGEN SULFIDE. NCY, Ukraine.

16) **F. Yazdian** and coauthors, Mathematical modeling of the resistance time distribution in a forced liquid vertical loop tubular bioreactor for biomass production from natural gas, the first international congress on oil gas and petrochemistry, 2012

Books

1. PHB Production
2. Mathematical Modeling Of Biosensors
3. Principles of Bio-separation Engineering
4. Transport Phenomena In Biological Systems
5. New Biotechnology
6. Bio-reactors in Tissue Engineering
7. Bio-surfactants
8. Microbial Enhance Oil Recovery
9. Protein Engineering
10. Biochemistry and Molecular Biotechnology Techniques

Honors

(2005)

First Ranked among 25 participants in Chemical Engineering-Biotechnology in the entrance exam of PhD.

(2007)

First ranked in 5th National Biotechnology Congress for "Investigation of mixing time, gas hold-up and flow regime in horizontal tubular loop bioreactor during production of Single cell protein (SCP) from natural gas".

(2009)

First ranked in 2005-2009 for PhD. degree.

Highest degree in PhD. of Science thesis (excellent by referees).

Academic Appointments

Associate Professor of Faculty of New Sciences and Technologies, University of Tehran,

2011-present

Head of Life Science Engineering, 2010 to 2013

Teachings

- Thermodynamic
- Bioreactor Design
- Fermentation Laboratory
- Computer
- Transport phenomena
- New topics in Biotechnology
- Bio-separation
- Mathematics
- Simulation

Industrial Appointments

Petrochemical Industrial Oil Company

Environment Center

Oil Company

Gas Company