

Curriculum Vitae

Personal Information

Full Name: Sharareh Harirchi

Nationality: Iranian

Date/place of birth: 1983/Neyshabur

Gender: Female

Marital Status: Married

Mailing Address: Sh. Ehsani Rad St., Enqelab St., Ahmadabad Mostoufi Rd., Azadegan Highway, P. O. Box 33535-111, Iranian Research Organization for Science and Technology, Tehran, Iran

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Educational Background

(2014 to 2020) Doctor of Philosophy in (Biology) Microbiology, Department of Cell and Molecular Biology and Microbiology, Faculty of Biological Science and Technology, University of Isfahan, Isfahan, Iran.

(2018 to 2019) Visiting Ph.D. student, Swedish Centre for Resource Recovery (SCRR), University of Borås, Borås, Sweden.

(2005-2008) Master of Science in Biology (Microbiology), Microbiology Division, Biology Department, Faculty of Science, University of Isfahan, Isfahan, Iran.

(2001-2005) Bachelor of Science in Cellular and Molecular Biology (Microbiology), Microbiology Division, Biology Department, Faculty of Science, University of Isfahan, Isfahan, Iran.

Ph.D. Thesis Title Enzymatic Hydrolysis of Lignocellulosic Materials by Using Thermophilic Bacteria Isolated from Larijan Hot Spring and Investigating Iron Nanoparticles and Carbon Nanostructures Effects in Facilitating Bioethanol Production. Supervised by Dr. Zahra Etemadifar and Professor Mohammad J. Taherzadeh and advised by Dr. Fatemeh Yazdian.

Thesis Grade 19.97 Out of 20 (Ranked as excellent by referees)

University University of Isfahan, Iran

Year 2020

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M.Sc. Thesis Title	The Effect of Dimethyl and Diethyl Disulfide on Molecular Structures (Flagella and Stalk) and Physiology of Marine Bacteria. Supervised by Professor Giti Emtiazi.
Thesis Grade	19.93 out of 20 (Ranked as excellent by referees)
University	University of Isfahan, Iran
Year	2008

Work Experience and Employment

(February 2024 to Present)	<u>Assistant Professor</u> , Department of Biotechnology, Iranian Organization for Science & Technology, Tehran, Iran.
(April 2023 to June 2023)	<u>Research Fellow</u> , Department of Biological and Environmental Science, Faculty of Mathematics and Science, University of Jyväskylä, Jyväskylä, Finland.
(September 2021 to September 2022)	<u>Project Researcher and Consultant</u> , Department of Cell and Molecular Biology and Microbiology, Faculty of Biological Science and Technology, University of Isfahan, Isfahan, Iran.
(January 2018 to December 2020)	<u>Iran Young Ambassador of American Society for Microbiology.</u>
(May 2015 to May 2017)	<u>ISO Officer</u> , Microorganisms Bank, Iranian Biological Resource Center (IBRC) Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran.
(November 2014 to May 2017)	<u>Chemicals Management Officer</u> , Microorganisms Bank, Iranian Biological Resource Center (IBRC) Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran.
(April 2013 to May 2017)	<u>International Affairs Administrator</u> , Microorganisms Bank, Iranian Biological Resource Center (IBRC) Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran.
(April 2011 to May 2017)	<u>Researcher and Lab Expert</u> , Preservation Laboratory, Microorganisms Bank, Iranian Biological Resource Center (IBRC) Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran.
(September to December 2016)	<u>Teacher Assistant</u> , Division of Microbiology, Biology Department, Faculty of Science, University of Isfahan, Isfahan, Iran.
(May 2011 to Nov 2014)	<u>CSR Laboratory Manager</u> , Microorganisms Bank, Iranian Biological Resource Centre, (IBRC) Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran.

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(Sep 2009 to Dec 2010)

Research Assistant, Department of Petroleum Biotechnology Upstream Industries, Biotechnology Research Center, Industrial and Environmental Protection Division, Research Institute of Petroleum Industry (RIPI), Tehran, Iran.

(March 2009 to Aug 2009)

Assistantship, Food, Water and Environment Laboratory, Pasteur Institute of Iran, Tehran, Iran.

(July 2003 to January 2008)

Assistantship, Environmental microbiology lab, Division of Microbiology, Biology Department, Faculty of Science, University of Isfahan, Isfahan, Iran.

Honors and Achievements

(2023)

Awarded The University of Jyväskylä Visiting Fellow Program Grant 2023 (EUR 6000), Jyväskylä, Finland.

(2021)

Top Young Researcher at the Department of Cell and Molecular Biology & Microbiology, Faculty of Biological Science and Technology, University of Isfahan, Iran.

(2016)

Ranked 3rd in the first Bio-Model Competition at University of Isfahan

(2010)

Achieved grant from Iran Nanotechnology Initiative Council for collaboration with professor Giti Emtiazi in translating and preparing a book entitled "Molecular Nanobiotechnology (Prokaryotes)" in Iran.

(2008)

Highest grade in M.Sc thesis of Microbiology (19.93 out of 20 ranked as excellent by referees)

(2005)

- Ranked 29th in Microbiology among up to 8500 participants in the national exam for entering nationwide M.Sc. programs in biological science.
- Ranked as a top student

(2004)

Ranked 1st and achieved gold medal in The 1st Nation Wide Conference of Biology Student (Biology, Society, a Glance at the Future) for studying of "Copper Adsorption by Nitrogen Fixing Bacteria".

(2002)

Ranked as a top student

Research Interests

- Molecular Microbiology and Microbial Physiology
- Resource Recovery and Wastes Treatment
- Microbial Biotechnology
- Biorefinery
- Long-term Preservation and Cryobiology

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Books

- Mohaddaseh Ramezani, Mahdi Moshtaghi Nikou, [Sharareh Harirchi](#), Mohammad Ali Amoozegar. 2017. **Fundamentals of Polyphasic Taxonomy of Microbial Species**. ISBN: 978-600-102-958-5, Iranian Students Booking Agency, Tehran, Iran.
- Giti Emtiazi and [Sharareh Harirchi](#). 2009. **Molecular Nanobiotechnology (Prokaryotes)**. ISBN: 978-964-7864-61-9, Mani publication, Isfahan, Iran.

Book Chapters

- [Sharareh Harirchi](#), Mojdeh Mirshafiei, Abdullah Bilal Öztürk, Mohsen Parchami, Fatemeh Yazdian, Mohammad J. Taherzadeh. 2025. **Production of biogas from food waste** In: Sirohi, R., Tarafdar, A., Porto de Souza Vandenbergh, L., Taherzadeh, M. J., Pandey, A. (eds) Sustainable Technologies for Food Waste Management. CRC Press, Boca Raton. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781032706030-6/production-biogas-food-waste-sharareh-harirchi-mojdeh-mirshafiei-abdullah-bilal-%C3%B6zt%C3%BCrk-mohsen-parchami-fatemeh-yazdian-mohammad-taherzadeh?context=ubx&refId=c187aad3-ab9a-4f64-ab4d-0dc606ea7b44>.
- Mandana Lak, Ariel Marchlewicz, Seyed Ali Nojoudi, Mohaddaseh Ramezani, [Sharareh Harirchi](#). 2024. **Bacterial Based Drop-In Biofuel Production** In: Kaur Brar, S., Gonzalez, C. S. O., Soccol, C. R., Saini, R. (eds) The Microbiology of the Drop-in Biofuel Production. Springer. https://link.springer.com/chapter/10.1007/978-3-031-61637-2_6#citeas.
- Shokufeh Rafieyan, Zahra Etemadifar, Reihaneh Moridshahi, Farzaneh Dianatdar, [Sharareh Harirchi](#). 2024. **Antibiotics and Antibiotic Resistance Genes and Their Management in Organic Wastes** In: Bhat, S. A., Kumar, V., Li, F., Ameen, F., Kumar, S. (eds) Environmental Nexus Approach Management of Water, Waste, and Soil. CRC Press, New York. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003408352-13/antibiotics-antibiotic-resistance-genes-management-organic-wastes-shokufeh-rafieyan-zahra-etemadifar-reihaneh-moridshahi-farzaneh-dianatdar-sharareh-harirchi>.
- Ramin Yazdani, [Sharareh Harirchi](#), Mandana Lak, Mojdeh Mirshafiei, Seyed Ali Nojoudi, Mohaddaseh Ramezani, Behnam Rasekh, Fatemeh Yazdian. 2024. **Recent Advances in Conventional and Modern Wastewater Treatment Approaches** In: Kumar, V., Kumar, S., Verma, P., Bhat, S.A. (eds) Microbial Nexus for Sustainable Wastewater Treatment: Resources, Efficiency, and Reuse. CRC Press, Florida. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003441069-5/recent-advances-conventional-modern-wastewater-treatment-approaches-ramin-yazdani-sharareh-harirchi-mandana-lak-mojdeh-mirshafiei-seyed-ali-nojoudi-mohaddaseh-ramezani-behnam-rasekh-fatemeh-yazdian>.
- Xinwei Sun, Andrei Mikhailovich Dregulo, Su Zhenni, Obulisamy Parthiba Karthikeyan, [Sharareh Harirchi](#), El-Sayed Salama, Yue Li, Raveendran Sindhu, Parameswaran Binod, Ashok Pandey, Mukesh Kumar Awasthi. 2023. **Role of Marine Algae for GHG Reduction/CO₂ Sequestration: Strategies and Applications**. In: Patel, A. K., Singhanian, R.R., Dong, C-D., Pandey, A. (eds) Sustainable Marine Food and Feed Production Technologies. CRC Press. <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1795417&dsid=7252>.

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- Taner Sar, [Sharareh Harirchi](#), Fatemeh Yazdian, Mohammad J. Taherzadeh. 2023. **Microorganisms Used in Biorefineries**. In: Bhaskar, T., Varjani, S., Krishna, B.B., Pandey, A. (eds) Biotic Resources Circular Bioeconomy Perspective. CRC Press, Florida. <https://doi.org/10.1201/9781003335740>.
- [Sharareh Harirchi](#), Shokufeh Rafieyan, Seyed Ali Nojoumi, Zahra Etemadifar. 2022. **Microbial Biodegradation and Metagenomics in Remediation of Environmental Pollutants: Enzymes and Mechanisms**. In: Kumar, V., Thakur, I.S. (eds) Omics Insights in Environmental Bioremediation. Springer, Singapore. https://doi.org/10.1007/978-981-19-4320-1_21
- [Sharareh Harirchi](#), Neda Roustaa, Sunita Varjani, Mohammad J. Taherzadeh. 2022, **Sampling, Preservation, and Growth Monitoring of Filamentous Fungi**. In: Taherzadeh, M.J., Ferreira J., Pandey, A. (eds) Current Developments in Biotechnology and Bioengineering Filamentous Fungi Biorefinery, Elsevier, Netherlands. <https://www.elsevier.com/books/current-developments-in-biotechnology-and-bioengineering/taherzadeh/978-0-323-91872-5>

Publications

- Taner Sar, Ariel Marchlewicz, [Sharareh Harirchi](#), Fani Mantzouridou, Muge Isleten Hosoglu, Meltem Yesilcimen Akbas, Coralie Hellwig, Mohammad J Taherzadeh. 2024. **Resource Recovery and Treatment of Wastewaters Using Filamentous Fungi**. *Science of The Total Environment*. 951: 175752. <https://doi.org/10.1016/j.scitotenv.2024.175752>.
- Marzieh Ramezani Farani, Mandana Lak, William C. Cho, Haneul Kang, Maryam Azarian, Fatemeh Yazdian, [Sharareh Harirchi](#), Keyvan Khoshmaram, Iraj Alipourfard, Kiavash Hushmandi, Seung-Kyu Hwang, Yun Suk Huh. 2024. **Carbon nanomaterials: a promising avenue in colorectal cancer treatment**. *Carbon Letters*. 34: 2035-2053. <https://doi.org/10.1007/s42823-024-00805-2>
- Zeinab Rafiee, Maryam Jalili Tabaii, Maryam Moradi, [Sharareh Harirchi](#). 2024. **Unveiling Antibacterial Potential and Physiological Characteristics of Thermophilic Bacteria Isolated from a Hot Spring in Iran**. *Microorganisms*. 12 (4): 834. <https://doi.org/10.3390/microorganisms12040834>.
- Yue Li, Karthikeyan Meenatchisundaram, Karthik Rajendran, Nisarg Gohil, Vinay Kumar, Vijai Singh, Manoj Kumar Solanki, [Sharareh Harirchi](#), Zengqiang Zhang, Raveendran Sindhu, Mohammad J. Taherzadeh, Mukesh Kumar Awasthi. 2023. **Sustainable Conversion of Biowaste to Energy to Tackle the Emerging Pollutants: A Review**. *Current Pollution Reports*. <https://doi.org/10.1007/s40726-023-00281-8>.
- Taner Sar, Pelin Kiraz, Vjola Braho, [Sharareh Harirchi](#), Meltem Yesilcimen Akbas. 2023. **Novel Perspectives on Food-Based Natural Antimicrobials: A Review of Recent Findings Published since 2020**. *Microorganisms*. 11 (9): 2234. <https://doi.org/10.3390/microorganisms11092234>.
- Mukesh Kumar Awasthi, Prabakaran Ganeshan, Nisarg Gohil, Vinay Kumar, Vijai Singh, Karthik Rajendran, [Sharareh Harirchi](#), Manoj Kumar Solanki, Raveendran Sindhu, Parameswaran Binod, Zengqiang Zhang, Mohammad J. Taherzadeh. 2023. **Advanced approaches for resource recovery from wastewater and activated sludge: A review**. *Bioresource Technology*. 129250. <https://doi.org/10.1016/j.biortech.2023.129250>.
- Nazife Isik Haykir, Shikh Mohd Shahrul Nizan Shikh Zahari, [Sharareh Harirchi](#), Taner Sar, Mukesh Kumar Awasthi, Mohammad J. Taherzadeh. 2023. **Applications of ionic liquids for the biochemical transformation of lignocellulosic biomass into biofuels and biochemicals: A critical review**. *Biochemical Engineering Journal*. 108850. <https://doi.org/10.1016/j.bej.2023.108850>.

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- Mukesh Kumar Awasthi, Vinay Kumar, Coralie Hellwig, Rachma Wikandari, [Sharareh Harirchi](#), Taner Sar, Steven Wainaina, Raveendran Sindhu, Parameswaran Binod, Zengqiang Zhang, Mohammad J. Taherzadeh. 2022. **Filamentous fungi for sustainable vegan food production systems within a circular economy: Present status and future prospects.** *Food Research International*. 112318. <https://doi.org/10.1016/j.foodres.2022.112318>.
- [Sharareh Harirchi](#), Taner Sar, Mohaddaseh Ramezani, Habibu Aliyu, Zahra Etemadifar, Seyed Ali Nojoumi, Fatemeh Yazdian, Mukesh Kumar Awasthi, Mohammad J. Taherzadeh. 2022. **Bacillales: From Taxonomy to Biotechnological and Industrial Perspectives.** *Microorganisms*. 10 (12): 2355. <https://doi.org/10.3390/microorganisms10122355>.
- Mukesh Kumar Awasthi, [Sharareh Harirchi](#), Taner Sar, Vigneswaran VS, Karthik Rajendran, Ricardo G'omez-García, Coralie Hellwig, Parameswaran Binod, Raveendran Sindhu, Aravind Madhavan, A.N. Anoop Kumar, Vinod Kumar, Deepak Kumar, Zengqiang Zhang, Mohammad J. Taherzadeh. 2022. **Myco-biorefinery approaches for food waste valorization: Present status and future prospects.** *Bioresource Technology*. 360: 127592. <https://doi.org/10.1016/j.biortech.2022.127592>.
- Sara Tavallaei, [Sharareh Harirchi](#), Zahra Etemadifar, Mohammad J. Taherzadeh. 2022. **Lignocellulosic Biomass: Renewable Sources for Bioethanol Production.** *Biological Journal of Microorganism*. 11 (43): 71-95. <https://doi.org/10.22108/bjm.2022.131065.1425>. (In Persian).
- [Sharareh Harirchi](#), Steven Wainaina, Taner Sar, Seyed Ali Nojoumi, Milad Parchami, Mohsen Parchami, Sunita Varjani, Samir Kumar Khanal, Jonathan Wong, Mukesh Kumar Awasthi, Mohammad J. Taherzadeh. 2022. **Microbiological Insights into Anaerobic Digestion for Biogas, Hydrogen or Volatile Fatty acids (VFAs): A Review.** *Bioengineered*. 13 (3): 6521-6557. <https://doi.org/10.1080/21655979.2022.2035986>.
- Taner Sar, [Sharareh Harirchi](#), Mohaddaseh Ramezani, Gülru Bulkan, Meltem Yesilcimen Akbas, Ashok Pandey, Mohammad J. Taherzadeh. 2022. **Potential utilization of dairy industries by-products and wastes through microbial processes: A critical review.** *Science of The Total Environment*. 810: 152253. <https://doi.org/10.1016/j.scitotenv.2021.152253>.
- [Sharareh Harirchi](#), Zahra Etemadifar, Fatemeh Yazdian, Mohammad J. Taherzadeh. 2020. **Efficacy of Polyextremophilic *Aeribacillus pallidus* on Bioprocessing of Beet Vinasse Derived from Ethanol Industries.** *Bioresource Technology*. 313: 123662. <https://doi.org/10.1016/j.biortech.2020.123662>.
- [Sharareh Harirchi](#), Zahra Etemadifar, Amir Mahboubi, Fatemeh Yazdian, Mohammad J. Taherzadeh. 2020. **The Effect of Calcium/Magnesium Ratio on the Biomass Production of a Novel Thermoalkaliphilic *Aeribacillus pallidus* Strain with Highly Heat-Resistant Spores.** *Current Microbiology*. 77: 2565-2574. <https://doi.org/10.1007/s00284-020-02010-6>.
- Mohaddaseh Ramezani, Mahdi Moshtaghi Nikou, Mohammad Pourmohyadini, Cathrin Spröer, Peter Schumann, [Sharareh Harirchi](#), Mahnaz Aryaeifar, Seyed Abolhassan Shahzadeh Fazeli, Mohammad Ali Amoozegar, Antonio Ventosa. 2019. ***Planomicrobium iranicum* sp. nov., a novel slightly halophilic bacterium isolated from a hypersaline wetland.** *International Journal of Systematic and Evolutionary Microbiology*. 69 (5): 1433–1437. <https://doi.org/10.1099/ijsem.0.003332>.

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- Mahdi Moshtaghi Nikou, Mohaddaseh Ramezani, [Sharareh Harirchi](#), Somayeh Makzoom, Mohammad Ali Amoozegar, Seyed Abolhasan Shahzadeh Fazeli, Peter Schumann, Antonio Ventosa. 2017. ***Salinifilum* gen. nov., with description of *Salinifilum proteinilyticum* sp. nov., an extremely halophilic actinomycete isolated from Meighan wetland, Iran, and reclassification of *Saccharopolyspora aidingensis* as *Salinifilum aidingensis* comb. nov. and *Saccharopolyspora ghardaiensis* as *Salinifilum ghardaiensis* comb. nov..** *International Journal of Systematic and Evolutionary Microbiology*. 67 (10): 4221-4227. <https://doi.org/10.1099/ijsem.0.002286>.
- Maryam Fanaei, Sayyed Hamid Zarkesh-Esfahani, Sahar Eskandari, Ghazal Babolmorad, [Sharareh Harirchi](#), Marzieh Rezaei, Somaieh Sabzali, Mina Seifzadeh. 2016. **Leptin and autoimmune diseases.** *Iranian Journal of Endocrinology and Metabolism*. 18 (3): 213-221. (In Persian).
- Aliakbar Nasiri, Roghayeh Afsar Gharebagh, Seyed Ali Nojourni, Majidreza Akbarizadeh, [Sharareh Harirchi](#), Masoud Arefnezhad, Shahla Sahraei, Mehran Hesarakhi, Mahdi Afshari, Fereshteh Javadian, Maryam Sheykhzade Asadi, Zahra Shahi, Aliyeh Sargazi. 2016. **Evaluation of the Antimicrobial Activity of Silver Nanoparticles on Antibiotic-Resistant *Pseudomonas aeruginosa*.** *International Journal of Basic Science in Medicine*. 1 (1): 25-28. <http://dx.doi.org/10.15171/ijbsm.2016.06>.
- Mahdi Moshtaghi Nikou, Mohaddaseh Ramezani, Mohammad Ali Amoozegar, Mehrnoosh Rasooli, [Sharareh Harirchi](#), Seyed Abolhasan Shahzadeh Fazeli, Peter Schumann, Cathrin Spröer, Antonio Ventosa. 2015. ***Nocardia halotolerans* sp. nov., a halotolerant actinomycete isolated from saline soil.** *International Journal of Systematic and Evolutionary Microbiology*. 65 (9): 3148-3154. <https://doi.org/10.1099/ijsem.0.000394>.
- Seyed Hamid Reza Alavi, Giti Emtiazi, [Sharareh Harirchi](#), Mohsen Golabi. 2005. **Methanol production from Dimethyl Sulfide (DMS) by *Bacillus*.** *Scientific Journal of Oil & Gas Exploration and Production*. 25 (9): 42-43. [20.1001.1.25381652.1384.1384.25.12.3](https://doi.org/10.1001.1.25381652.1384.1384.25.12.3).

Presentations

- [Sharareh Harirchi](#), Mohaddaseh Ramezani, Seyed Ali Nojourni . 2023. **Critical Roles of Microorganisms in Zero Waste Strategies.** International Sustainable Resource Recovery Strategies Towards Zero Waste (FULLRECO4US) Conference, 13-15 September, Istanbul, Turkey.
- [Sharareh Harirchi](#), Eeva-riikka Vehniäinen, Marja Tirola. 2023. **Analysis of fungal ribosomal RNA in soil samples using unbiased metatranscriptomic libraries.** The XLIII Finish NMR Symposium. Natural Sciences for Sustainability 2023, 16-17 June, Jyväskylä, Finland.
- Mahdi Moshtaghi Nikou, Mohaddaseh Ramezani, [Sharareh Harirchi](#), Somayyeh Makzoom, Mohammad Ali Amoozegar, Seyed Abolhassan Shahzadeh Fazeli. 2016. **Introduction of a new moderate halophilic rare actinomycete using polyphasic approach.** 19th National and 7th International Congress of Biology, 30 August-September 1, Tabriz, Iran.
- [Sharareh Harirchi](#), Shokufeh Rafieyan, Mohaddaseh Ramezani, Seyed Abolhassan Shahzadeh Fazeli. 2016. **Proposal of new methods for long-term preservation of salt loving microorganisms in IBRC.** 17th International and Iranian Congress of Microbiology, August 23-25, Tehran, Iran.

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- Mahmoud Shavandi, [Sharareh Harirchi](#), Seyed Mohammad Mehdi Dastgheib, Hanif Khodaverdi. 2013. **Application of hyperthermophilic *Geobacillus* sp. Isolated from Larijan hot spring for removal of paraffinic oil-well deposits.** 14th International and Iranian Congress of Microbiology, August 28-30, Tehran, Iran.
- Shima Sadat Seyedmahdi, [Sharareh Harirchi](#), Azadeh Shahinpei. 2013. **Long-term preservation of aerobic and anaerobic probiotics in IBRC.** 14th International and Iranian Congress of Microbiology, August 28-30, Tehran, Iran.
- Shima Sadat Seyedmahdi, Heidar Shakarami, [Sharareh Harirchi](#), Fatemeh Abedi, Mohammad Ali Amoozegar. 2012. **Long-term preservation of Archaea domain by freeze- drying method in IBRC.** 1st National Biological Resource Congress, February 22-23, Tehran, Iran.
- Mahdi Moshtaghi Nikou, Mohaddeseh Ramezani, [Sharareh Harirchi](#), Mohammad Ali Amoozegar. 2012. **Isolation and partial identification of rare actinomycetes from Inche-boroon lake, Gorgan Province.** 1st National Biological Resource Congress, February 22-23, Tehran, Iran.
- Mohaddeseh Ramezani, Ali Makhdoumi, Seyed Abolhasan Shahzadeh Fazeli, [Sharareh Harirchi](#), Mohammad Ali Amoozegar. 2012. ***Limimonas halophila*, gen. nov., sp. nov., a halophilic bacteria in Rhodospirillaceae family.** 1st National Biological Resource Congress, February 22-23, Tehran, Iran.
- Mahmoud Shavandi, [Sharareh Harirchi](#), Hanif Khodaverdi, Sayyed Mohammad Mehdi Dastgheib. 2010. **Application of thermophilic bacteria for treatment of waxy oil wells.** 14th International oil, gas & petrochemical congress, May 19-20, Tehran, Iran.
- Giti Emtiazi, [Sharareh Harirchi](#), Neda Habibi. 2008. **Bioremediation of Diethyl disulfide by nano layer membrane from *Rhodococcus*.** Second conference of nanostructure, March 11-14, Kish Island, Iran.
- Giti Emtiazi and [Sharareh Harirchi](#). 2008. **The role of membrane enzymes of *Rhodococcus erythropolis* 68 in Diethyl disulfide (DEDS) removal.** The 9th Iranian Conference of Microbiology, March 4-6, Kerman, Iran.
- Giti Emtiazi and [Sharareh Harirchi](#). 2007. **Diethyl disulfide effect on bacterial biofilm.** Research Week of University of Isfahan, Decembre 18, Isfahan, Iran.
- [Sharareh Harirchi](#) and Giti Emtiazi. 2007. **Application of bioglue in nanotechnology.** The 7th International Conference on Nanotechnology and Application (Nano Tech Insight '07), March 10-17, Luxor, Egypt.
- [Sharareh Harirchi](#) and Naser Golbang. 2007. **Cyanotoxins and their hazards.** Research Week of University of Isfahan, February 24, Isfahan, Iran.
- Iraj Nahvi, [Sharareh Harirchi](#), Maryam Bagheri. 2006. ***Geobacter* or Nanobiogenerator.** The 2nd Nation Wide Conference of Biology Student (Biology, Society, a Glance at the Future), May 11-12, Mashhad, Iran.
- Naser Golbang, Saaïd Afsharzadeh, [Sharareh Harirchi](#). 2006. **Cyanotoxins: The invisible and mysterious toxins.** The 2nd Nation Wide Conference of Biology Student (Biology, Society, a Glance at the Future), May 11-12, Mashhad, Iran.
- Majid Motevali-bashi and [Sharareh Harirchi](#). 2006. **Telomerases: A way to immortal life.** The 9th Iranian Genetics Congress, May 20-22, Tehran, Iran.

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- Majid Motevali-bashi and Sharareh Harirchi. 2004. **New concepts of aging process**. The 2nd National Conference on Biology and Biotechnology of Student, March 10-12, Zabol, Iran.
- Giti Emtiazi and Sharareh Harirchi. 2004. **Copper Adsorption by Nitrogen fixing bacteria**. The 1st Nation Wide Conference of Biology Student (Biology, Society, a Glance at the Future), May 19- 21, Mashhad, Iran.

On-line Resources

(2018) Two bacterial strains deposition in international culture collections (Iran and Sweden)

Aeribacillus pallidus

<https://ccug.se/strain?id=72355&s=20725&p=871&sort=so&collection=entire&records=25&t>

Ureibacillus thermosphaericus

<https://ibrc.ir/index.aspx?&siteid=1&pageid=379&p=1&showitem=658>

(2016-2022) 16 sequenced genes registered in National Center for Biotechnology Information (NCBI)

<https://www.ncbi.nlm.nih.gov/nuccore/OP564888.1>
<https://www.ncbi.nlm.nih.gov/nuccore/OP564889.1>
<https://www.ncbi.nlm.nih.gov/nuccore/OP564890.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MG768973.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MG770094.1>
<https://www.ncbi.nlm.nih.gov/nuccore/KX024578.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MH368151.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MH005096.1>
<https://www.ncbi.nlm.nih.gov/nuccore/KU886574.1>
https://www.ncbi.nlm.nih.gov/nuccore/NR_137261.1
<https://www.ncbi.nlm.nih.gov/nuccore/MH368353.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MH368299.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MH368296.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MH368249.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MG770357.1>
<https://www.ncbi.nlm.nih.gov/nuccore/MF522829.1>

Editorial Roles

- (2024-2025) Guest Editor, *Frontiers in Microbiomes*
Special Issue: "Ecological Roles and Functional Contributions of Environmental Microbiomes in Ecosystem Dynamics"
- (2024-2025) Guest Editor, *Microorganisms*
Special Issue: "Microbial Bioactive Compounds: Production, Sustainability, and Environmental Protection"

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- (2023-2024) Guest Editor, *Separations*
Special Issue: “Application of Biomass in Degradation and Purification”

Peer Review Contributions

National Journals

- Applied Food Biotechnology (2015 to Present), National Nutrition and Food Technology Research Institute
- Journal of Microbial Biology (2015 to Present), University of Isfahan
- Iranian Journal of Microbiology (2022 to Present), Teheran University of Medical Sciences
- Microbiology, Metabolites and Biotechnology (2024 to Present), Iranian Research Organization for Science and Technology

International Journals

• Elsevier

- Bioresource Technology (2020 to Present)
- Bioresource Technology Reports (2024 to Present)
- Chemosphere (2022 to Present)
- Environmental Pollution (2023 to Present)
- Environmental Research (2022 to Present)
- Environmental Technology & Innovation (2022 to Present)
- International Journal of Biological Macromolecules (2023 to Present)
- International Journal of Food Microbiology (2022 to Present)
- Process Biochemistry (2022 to Present)
- Renewable Energy (2023 to Present)

• Frontiers

- Frontiers in Chemical Engineering (2024 to Present)

• MDPI AG.

- Agriculture (2024 to Present)
- Antibiotics (2024 to Present)
- Applied Sciences (2023 to Present)
- Diversity (2024 to Present)
- Fermentation (2023 to Present)
- Foods (2024 to Present)
- International Journal of Environmental Research and Public Health (2023 to Present)
- International Journal of Molecular Sciences (2023 to Present)
- Journal of Fungi (2023 to Present)
- Life (2023 to Present)
- Microorganisms (2022 to Present)
- Molecules (2022 to Present)
- Polymers (2023 to Present)
- Sustainability (2022 to Present)
- Water (2022 to Present)

Curriculum Vitae

• Springer

- BioEnergy Research (2022 to Present)
- Biomass Conversion and Biorefinery (2021 to Present)
- Biotechnology Letters (2024 to Present)
- Discover Applied Sciences (2024 to Present)
- Systems Microbiology and Biomanufacturing (2024 to Present)
- Waste and Biomass Valorization (2022 to Present)

• Taylor and Francis Ltd.

- Bioengineered (2020 to Present)
- Critical Reviews in Environmental Science and Technology (2024 to Present)
- Geomicrobiology Journal (2022 to Present)

• Wiley-Blackwell

- Biotechnology Progress (2022 to Present)
- Engineering in Life Sciences (2021 to Present)

Projects:

- **Biodiversity and Identification of Biosurfactant-producing Bacteria from Makran Trench Sediments.** *Department of Biotechnology, Iranian Research Organization for Science and Technology, Tehran, Iran. (Active).*
- **Setting up the Microbial Culture Collection of the University of Isfahan through Maintaining Microorganisms Related to the Ethanol Production Industry.** *Microbiology Division, Biology Department, Faculty of Science, University of Isfahan, Isfahan, Iran. (Completed).*
- **Isolation, Identification and Preservation of Native Microorganisms in Meighan Wetland.** *Microorganisms Bank, Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran. (Completed).*
- **Screening the ability of Kharg Island Oil Lagoon Native Microorganisms in Bioremediation of Oil Contamination with Microbial Genomics and Metagenomics Methods.** *Microorganisms Bank, Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran. (Completed).*
- **Prokaryotic Map of Caspian Sea.** *Microorganisms Bank, Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran. (Completed).*
- **Isolation, Identification and Preservation of Native Microorganisms from Gumishan and Inche-Brun Wetlands.** *Microorganisms Bank, Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Karaj, Iran. (Completed).*
- **Isolation and Evaluation of Microorganisms for Deposit Removal of Oil Well and Bench Optimization of the Process.** *Department of Petroleum Biotechnology Upstream Industries, Biotechnology Research Center, Industrial and Environmental Protection Division, Research Institute of Petroleum Industry (RIPI), Tehran, Iran. (Completed).*

Curriculum Vitae

- **Biodegradation of DSO.** *Biology Department, Science Faculty, University of Isfahan, Isfahan, Iran. (Completed).*

Laboratory Research Skills

General Microbiology

- Excellent experience in sampling, isolation, screening, media formulation and cultivation of microorganisms from various sources
- Long term preservation of various microorganisms such as fungi, yeasts, bacteria, archaea, algae, etc. by freeze-drying and cryopreservation
- Biochemical, physiological and molecular identification of microorganisms (Polyphasic Taxonomy)
- Cell staining, Fluorescence and Light Microscopy
- Experience in working with anaerobic and polyextremophilic bacteria and various yeasts
- Bioreactors such as STR

Analytical Skills

- Spectrophotometry
- HPLC
- FTIR
- Tapstation Analysis
- Nanodrop Analysis

Molecular Microbiology

- General molecular biology techniques
- Primer designing and PCR
- Genomic DNA and RNA extraction,
- DNA, RNA, and protein gel electrophoresis
- SDS PAGE
- qPCR
- Whole bacterial protein extraction and enzyme assays
- Bacterial membrane and polar lipid extraction

Computer Skills

- Microsoft Office (Excel, PowerPoint, Publisher, Access, Word)
- Database Preparation
- Endnote software
- Statistics software such as Minitab
- Bioinformatics software such as Chromass, EZ-Taxon, ProteinScope, RasMol, etc.

Language Skills

- Azerbaijani **(Mother tongue)**
- Persian **(Vernacular)**
- Turkish **(Upper-intermediate)**
- French **(Intermediate)**

Curriculum Vitae

- English **MSRT (MCHE) Exam of the ministry of science, research and technology of the I.R. of Iran (Score 78/100 in 2017)**
MSRT (MCHE) Exam of the ministry of science, research and technology of the I.R. of Iran (Score 75/100 in 2014)
GRE (Verbal Score: 139, Quantitative Score: 152 in 2012)
Excellent-Academic IELTS (Score: 6.5 in 2010)
T.M.U.E Exam of Tarbiat Modares University (Score: 64 out of 100 in 2009)
TOLIMO Exam of the ministry of science, research and technology of the I.R. of Iran (Score: 483 in 2006)

Student Supervision:

- Co-Supervisor of Master's Thesis at the Ashrafi Isfahani University (2021-2022)
Project Description: Isolation and identification of thermophilic microorganisms from a hot spring located in Iran with antimicrobial activities.

Training Courses and Lectures

- Lecture at online workshop on **An Introduction to EndNote Software** Conducted as Department of Cell and Molecular Biology and Microbiology, University of Isfahan, Isfahan, Iran, (March 9, 2023).
- Lecture at training course on **Cryopreservation of Microorganisms** Conducted at Takgene Group, Tehran, Iran, (November 19-20, 2022).
- Lecture at online workshop on **Long-term Preservation of Microorganisms** Conducted as Department of Cell and Molecular Biology and Microbiology, University of Isfahan, Isfahan, Iran, (February 4, 2021).
- Lecture at training course on **Principles of Research in Microbial Laboratories and an Introduction to Nutritional Requirements of Microorganisms** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (January 10-11, 2017).
- Lecture delivery on **Extremophiles and their Secondary Metabolites**. Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (December 11, 2016).
- Lecture at training course on **Introduction on Cultivation of Anaerobic Bacteria** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (July 24-25, 2016).
- Lecture delivery on **Preservation of Industrial Microorganisms** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (January 4, 2016).
- Lecture delivery on **Space Microbiology and Microgravity Environments** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (June 15, 2015).

Curriculum Vitae

- Lecture at training course on **Microbial Culture Collections: Methods of Long-term Preservation** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (March 8-10, 2015).
- Lecture at training course on **Introduction to Cultivation of Anaerobic Bacteria** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (March 8-9, 2015).
- Lecture at training course on **Microbial Professional Skills (Introductory Level)** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (January 14-15, 2015).
- Lecture at training course on **Microbial Professional Skills (Advanced Level)** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (December 17-18, 2014).
- Lecture at training course on **Microbial Professional Skills (Introductory Level)** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (November 19-20, 2014).
- Lecture delivery on **Long-term Preservation of Microorganisms** conducted at 15th Iranian and International Congress of Microbiology, Tehran, Iran (August 26-28, 2014).
- Lecture at training course on **Microbial Enumeration and Principle of Staining** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (January 27-29, 2014).
- Lecture at training course on **An Introduction to Nutrition and Staining of Microorganisms** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (January 14, 2014).
- Lecture at training course on **Principles of Research in Microbial Laboratories and an Introduction to Nutritional Requirements of Microorganisms** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (December 9-11, 2013).
- Lecture at training course on **Principles of Research in Microbial Laboratories** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (November 9-11, 2013).
- Lecture at training course on **Principles and Techniques of Research in Microbial Laboratories and an Introduction to Microbial Systematics** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (October 19-22, 2013).
- Lecture at training course on **Principles and Techniques of Research in Microbial Laboratories and an Introduction to Microbial Systematics** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (May 25 to June 1, 2013).
- Lecture at training course on **Lyophilization of Microorganisms** Conducted at Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran, (December 203, 2012).

Curriculum Vitae

- Lecture delivery on **Microbial Culture Collections and Long-term Preservation of Microorganisms** Conducted at 2nd National Congress of Probiotics and Functional Foods, Tehran, Iran, (November 20-22, 2012).
- Lecture Delivery on **Environmental Microbiology Laboratory** Conducted at University of Isfahan, Isfahan, Iran, (2007).
- Visiting Lecture On **Microbiology Laboratory** Conducted at Azad University of Najafabad Branch. Isfahan, Iran, (2006).

Attended Workshops, Courses and Participations

- One-day workshop on: ***“Effective Communication Skills”***. Iranian Research Organization for Science and Technology, Tehran, Iran (October 13, 2024).
- One-day workshop on: ***“An Introduction to Science and Technology Parks”***. Iranian Research Organization for Science and Technology, Tehran, Iran (October 12, 2024).
- One-day workshop on: ***“Patent Procedure in Iran”***. Iranian Research Organization for Science and Technology, Tehran, Iran (September 16, 2024).
- One-day workshop on: ***“Communication with Industry and Commercialization”***. Iranian Research Organization for Science and Technology, Tehran, Iran (May 28, 2024).
- One-day seminar on: ***“Rules and Regulations in Ministry of Science, Research and Technology of Iran”***. Iranian Research Organization for Science and Technology, Tehran, Iran (May 27, 2024).
- One-day workshop on: ***“Mendeley Reference Management Software”***. Iranian Research Organization for Science and Technology, Tehran, Iran (May 1, 2024).
- One-day workshop on: ***“Google and Networking”***. Iranian Research Organization for Science and Technology, Tehran, Iran (June 9, 2024).
- One-day seminar on: ***“An Introduction to Low-voltage Electron Microscopy”***. University of Isfahan, Isfahan, Iran (November 28, 2023).
- One-day webinar on: ***“MDPI World Wetlands Day 2023”***. MDPI, Switzerland (February 2, 2023).
- One-day online workshop on: ***“Bacteriophage”***. Yazd University, Yazd, Iran (December 19, 2022).
- Ph.D. Course on: ***“Research Perspectives on Sustainable Development”***. University of Borås, Borås, Sweden (Fall 2018).
- Ph.D. Course on: ***“Applied Statistical Design of Experiments”***. University of Borås, Borås, Sweden (Spring 2018).
- One-day workshop on: ***“Metabolic Flux Analysis: A concept and a modeling tool”***. University of Isfahan, Isfahan, Iran (March 3, 2018).

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- One-day workshop on: “**Principles and Practices in Modern Taxonomy of Prokaryotes**”. Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (February 14, 2016).
- Participated in the 3rd International Conference on “**Trade and Market Development of Organic Products**”. Tehran, Iran (August 25, 2015).
- Two-day workshop on: “**Sequence Alignment**”. Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (April 25-27, 2014).
- One-day workshop on: “**Introduction to HIV and Hepatitis**”. HSE of Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (March 11, 2013).
- One-day Workshop on “**ISO and Management in Research Institutes**”. Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (September 18, 2012).
- Passed the Exam from Theme “**Rescue Training by Red Crescent**” Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (April 15 to June 19, 2012).
- Passed the Exam from Theme “**Principles of Good Laboratory Practice (GLP) and Biosafety**” Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (February 16, 2012).
- Two-day Workshop on “**Statistics and SPSS software**”. Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (December 1-2, 2011).
- One-day Workshop on “**Endnote software**”. Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (October 27, 2011).
- Two-day Workshop on: “**Safety in Laboratories**”. Iranian Biological Resource Center (IBRC), Research Complex of ACECR (Iranian Academic Center for Education, Culture & Research), Tehran, Iran (October 11-12, 2011).

Membership and Associations

- Membership of International Bioprocessing Association (2021 to Present)
- Membership of American Society for Microbiology (2018 to Present)
- Membership of Iranian society of Microbiology (2005 to Present)
- Association with Academic Office of Biology Department, Faculty of Science, University of Isfahan, Isfahan, Iran (2005).
- Association with Research Exhibition of University of Isfahan, Isfahan, Iran (2004).
- Author of student journals in University of Isfahan, Isfahan, Iran (2004).
- Membership of editorial board of student journals in University of Isfahan, Isfahan, Iran (2003).

Curriculum Vitae

Interesting Activities

- Enamel working (Ranked as excellent by referees)
- Iranian Arabesque Painting
- Language Learning
- Reading Novels
- Cooking

Referees

Mohammad J. Taherzadeh (Professor)

Institution: Faculty of Textiles, Engineering and Business, Department of Resource Recovery and Building Technology, University of Borås, Borås, Sweden.

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Marja Tirola (Professor)

Institution: Faculty of Mathematics and Science, Department of Biological and Environmental Science, University of Jyväskylä, Jyväskylä, Finland.

Phone: +358 44 085 8609

E-mail: marja.tirola@jyu.fi

Webpage: <https://www.jyu.fi/science/en/bioenv/staff-and-administration/staff/tirola-marja>

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