

# **Curriculum Vitae**

# Dr. Mohammad Shakerkhatibi Associate Professor of Environmental Engineering

## **Personal Information**

Associate Professor of Environmental Engineering,

Department of Environmental Health Engineering,

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Tabriz University of Medical Sciences, Tabriz, Iran.

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## Education

Ph.D of Environmental Engineering, Tarbiat Modares University, Terhran, Iran, 2010.

M.Sc of Environmental Engineering, Shiraz University, Shiraz, Iran, 2003.

B.Sc of Environmental Health Engineering, Hamadan University of Medical Sciences, Hamadan, Iran, 1999.

# **Professional Experiences**

- Associate Professor of Environmental Engineering, Academic member of Department of Environmental Health Engineering, Tabriz University of Medical Sciences, March 10, 2010 to Present.
- Advisor of talented students, Faculty of Health, Tabriz University of Medical Sciences, 2011 to Present.

# **Teaching Experiences**

I have been involved in teaching of the following subjects:

- Hydraulics and fluid mechanics to B.Sc Students
- Process and operations in environmental health engineering to B.Sc Students
- Wastewater treatment to B.Sc Students
- Industrial wastewater management to M.Sc Students
- Soil pollution to M.Sc Students
- Nuclear waste management to M.Sc Students
- Modeling in environmental health engineering to Ph.D Students
- Radioactive protection to Ph.D Students

## Reviewer in the following Journals

- Water research
- Water Science and Technology
- Desalination and Water Treatment
- Heighpubs Journal of Civil and Environmental Engineering
- Environmental Health Engineering and Management Journal
- International Research Journal of Public and Environmental Health
- Separation Science and Technology
- Health Promotion Perspectives
- International Journal of Environmental Protection

- Iranian Journal of Science and Technology
- Advances in Environmental Technology
- Journal of Applied Research in Water and Wastewater
- Journal of Civil and Environmental Engineering
- Modares Civil Engineering Journal

# Research Interest Keywords

- Air pollution and health effects
- Air pollution monitoring and modeling
- Pesticide residues in water resources
- Municipal and industrial wastewater (treatability tests, performance evaluation of treatment plants, modeling)
- Environmental impact assessment

#### **Publications**

# Full papers published in peer-reviewed journals

# In English (from the most recent)

- 2018 Kh. Zoroufchi Benis, A. Safaiyan, D. Farajzadeh, F. Khalili Nadji, M. Shakerkhatibi, H. Harati, G. H. Safari, M. H. Sarbazan (2018). Municipal solid waste characterization and household waste behaviors in a megacity in the northwest of Iran, International Journal of Environmental Science and Technology, https://doi.org/10.1007/s13762-018-1902-9.
- 2018 Ali Behnami, Davoud Farajzadeh, Siavash Isazadeh, Khaled Zoroufchi Benis, **Mohammad Shakerkhatibi**, Zohreh Shiri, Sajjad Ghorghanlu, Adeleh Yadeghari (2018). Diversity of bacteria in a full-scale petrochemical wastewater treatment plant experiencing stable hydrocarbon removal, Journal of Water Process Engineering 23, 285–291.
- 2016 **Mohammad Shakerkhatibi**, Mohammad Mosaferi, Khaled Zorufchi Benis, Zahra Akbari (2016). Performance evaluation of a full-scale ABS resin manufacturing wastewater treatment plant: a case study in Tabriz Petrochemical Complex, Environmental Health Engineering and Management Journal, 3(3), 151–158.
- 2016 Ali Behnami, **Mohammad Shakerkhatibi**, Reza Dehghanzadeh, Khaled Zoroufchi Benis, Siavash Derafshi, Esmaeil Fatehifar, (2016). The implementation of data reconciliation for evaluating a full-scale petrochemical wastewater treatment plant, Environ Sci Pollut Res, 23: 22586–22595.

- 2016 Nader Taghipour, Mohammad Mosaferi, **Mohammad Shakerkhatibi**, Neemat Jaafarzadeh, Reza Dehghanzadeh, Hassan HosseinNia, (2016). Optimized coupling of a submerged membrane electro-bioreactor with pre-anaerobic reactors containing anode electrodes for wastewater treatment and fouling reduction, Journal of Water Reuse and Desalination, Available Online 4 August 2016, jwrd2016063; DOI: 10.2166/wrd.2016.063.
- 2016 Hassan Taghipour, Mina Alizadeh, Reza Dehghanzadeh, Mohammad Reza Farshchian, Mohammad Ganbari, **Mohammad Shakerkhatibi**, (2016). Performance of on-site Medical waste disinfection equipment in hospitals of Tabriz, Iran Health Promotion Perspectives, 6(4), 202-206.
- 2016 Kh. Zoroufchi Benis, **M. Shakerkhatibi**, R. Yousefi, D. Kahforoushan, S. Derafshi, (2016). Emission patterns of acrylonitrile and styrene around an industrial wastewater treatment plant in Iran Int. J. Environ. Sci. Technol. 13: 2353–2362.
- 2015 **Mohammad Shakerkhatibi**, Nahideh Mohammadi, Khaled Zoroufchi Benis, Alireza Behrooz Sarand, Esmaeil Fatehifar, Ahmad Asl Hashemi, (2015). Using ANN and EPR models to predict the CO concentrations in urban area of Tabriz, Environmental Health Engineering and Management Journal, 2(3), 117-122.
- 2015 M. Shakerkhatibi, I. Dianat, M. Asghari Jafarabadi, R. Azak, A. Kousha, (2015). Air pollution and hospital admissions for cardio-respiratory diseases in Iran: Artificial Neural Network versus Conditional Logistic Regression, International Journal of Environmental Science and Technology, 12, 3433-3442.
- 2014 Mohammad Mosaferi, Mojtaba Pourakbar, **Mohammad Shakerkhatibi**, Esmaeil Fatehifar, Mehdi Belvasi, (2014). Quality modeling of drinking groundwater using GIS in rural communities, northwest of Iran, Journal of Environmental Health Science & Engineering, 12:99. <a href="http://www.ijehse.com/content/12/1/99">http://www.ijehse.com/content/12/1/99</a>.
- 2014 **Mohammad Shakerkhatibi**, Mohammad Mosaferi, Mohammad Asghari Jafarabadi, Ehtesham Lotfi, Mehdi Belvasi, (2014). Pesticides residue in drinking groundwater resources of rural areas in the northwest of Iran, Health Promotion Perspectives, 4(2), 195-205.
- 2014 Mohammad Mosaferi, **Mohammad Shakerkhatibi**, Saeid Dastgiri, Mohammad Asghari Jafarabadi, Alireza Khataee, Samira Sheykholeslami, (2014). Natural Arsenic Pollution and Hydrochemistry of Drinking Water of an Urban Part of Iran, Avicenna J Environ Health Eng. 1(1):e164.
- 2013 Shakerkhatibi, M., Monajemi, P., Jafarzadeh, M.T., Mokhtari, S.A. and Farshchian, M.R. (2013). Feasibility study on EO/EG wastewater treatment using pilot scale SBR, International Journal of Environmental Research, 7 (1), 195-204.

- 2013 Mohammad Mosaferi, Iman Dianat, Mohammad Shakerkhatibi, Sepideh Nemati Mansour, Mohammad Fahiminia, Ahmad Asl Hashemi, (2013). Review of environmental aspects and waste management of stone cutting and fabrication industries, Journal of Material Cycles and Waste Management, Springer Japan, DOI: 10.1007/s10163-013-0193-y.
- 2012 Taghipour, H., **Shakerkhatibi, M**., Pourakbar, M., Belvasi, M., (2012). Corrosion and Scaling Potential in Drinking Water Distribution System of Tabriz, Northwestern Iran, Health Promotion Perspectives, 2 (1), 103-111.
- 2011 A.B. Khoshfetrat, H. Nikakhtari, M. Sadeghifar, M. Shakerkhatibi, (2011). Influence of organic loading and aeration rates on performance of a lab-scale upflow aerated submerged fixed-film bioreactor, Process Safety and Environmental Protection, 89, 193-197.
- 2010 **M. Shakerkhatibi,** H. Ganjidoust, B. Ayati, E. Fatehifar., (2010). Performance of Aerated Submerged Fixed-Film Bioreactor for treatment of Acrylonitrile-Containing Wastewater, Iranian journal of environmental health science and engineering, 7 (4), 327-336.

# In Persian (from the most recent)

- 2017 Nahideh Mohammadi, Khaled Zoroufchi Benis, Masood Shakeri, **Mohammad Shakerkhatibi**, Esmaeil Fatehifar, Amir Mahmoudian, (2017). Associations between Surface Ozone and Nitrogen Oxides of Ambient Air in Tabriz, Journal of Civil and Environmental Engineering, 47 (1), 107-114.
- 2017 A. Behnami, M. Shakerkhatibi, S. Derafshi, E. Fatehifar, M.M. Chavoshbashi, Z. Akbari, (2017). Performance evaluation of Tabriz petrochemical wastewater treatment plant, Modares Civil Engineering Journal, 17 (2), 55-65.
- 2017 Mohammad Mosaferi, Samira Sheykholeslami, Saeid Dastgiri, Mohammad Shakerkhatibi, (2017). Determination of arsenic in recreational hot water springs in Sarein-Ardabil region considering possible dermal exposure, Med J Tabriz Uni Med Sciences Health Services, 39 (2), 70-76.
- 2017 Mohammad Shakerkhatibi, Mohammad Asghari Jafarabadi, Razieh Azak, (2017). Evaluation of Air Pollution Effects on Cardiovascular Hospital Admissions in Tabriz: A Case-Crossover Analysis, Medical Journal of Tabriz University of Medical Sciences and Health Services, 38 (6), 26-33.
- 2016 Nahideh Mohammadi, Khaled Zoroufchi Benis, **Mohammad Shakerkhatibi**, Esmaeil Fatehifar, Alireza Behrooz Sarand, Amir Mahmoudian, Farid Sheikholeslami, (2016). Forecasting Concentrations of Gaseous Air Pollutants Using Artificial Neural Networks in Tabriz, Journal of Civil and Environmental Engineering, 46 (2), 97-104.

- 2016 Zahra Akbari, Mohammad Shakerkhatibi, Mohammad Mosaferi, Najibe Asl Rahnema Akbari, Zohre Shiri, Mohammad Reza Farshchian, (2016). Isolation and identification of dominant microorganisms in activated sludge of abs effluent treatment plant and evaluation of their potential for acrylonitrile biodegradation, The Journal of Urmia University of Medical Sciences, 27 (5), 375-383.
- 2016 B. Ghoreishi, M. Shakerkhatibi, H. Aslani, A. Dolatkhah, A. Abdoli Seilabi, M. Mosaferi, (2016). Evaluation of Microbial Quality in Biosolids Generated from Municipal Wastewater Treatment plants, Iran. J. Health and Environ., 9 (1), 81-90.
- 2016 R. Yousefi, Kh. Zoroufchi Benis, S. Derafshi, M. Shakerkhatibi, (2016). Estimation of Emission Rate and Simiulation of Styrene and Acrilonitryle Dispersion around an ABS plant, Modares Civil Engineering Journal, 16 (5), 243-252.
- 2016 Z. Akbari, M. Shakerkhatibi, M. Mosaferi, S. Derafshi, E. Fatehifar, M.M. Chavoshbashi, A. Behnami, (2016). Evaluation of operating performance of ABS wastewater treatment system, Modares Civil Engineering Journal, 16 (2), 31-40.
- 2016 Mohammad Mosaferi, Saeid Dastgiri, **Mohammad Shakerkhatibi**, Samira Sheykholeslami, (2016). Epidemiological Study of Skin Effects of Exposure to Low Concentration of Arsenic from Drinking Water in Two Villages of Sarab, Medical Journal of Tabriz University of Medical Sciences and Health Services, 38 (5), 56-61.
- 2015 M. Pourakbar, M. Mosaferi, **M. Shakerkhatibi**, A. Moradi, (2015). Groundwater Quality Assessment from a Hydrogeochemical Viewpoint (A Case Study of Sarab County), Water and Wastewater, 3, 116-126.
- 2015 M. Asghari Jafarabadi, M. Shakerkhatibi, R. Azak, M. Shakeri, (2015). Association between air pollution and hospital admissions of respiratory disease patients in Tabriz, Iran using the neural network model, Scientific Journal of School of Public Health and Institute of Public Health Research, 13 (1), 87-98.
- 2015 B. Djahed, M.A. Baghapour, M. Shakerkhatibi, F. Khalili Nadji, (2015). The application of activated carbon produced from used newspaper in the removal of methylene blue dye from aqueous solution: isotherm, kinetic and thermodynamic study, Modares Civil Engineering Journal, 14 (4), 1-9.
- Vajiheh Lotfi, Yahya Rasoulzadeh, Faramarz Moattar, Reza Gholamnia, Mohammed Shakerkhatibi, (2013). Survey of Airborne Asbestos Concentrations in High Traffic Areas of Tabriz, Medical Journal of Tabriz University of Medical Sciences and Health Services, 35 (2), 78-83.

- 2011 M. Mosaferi, **M. Shakerkhatibi**, A. Hashemi Asl, Sh. Nazmara, M.E. Ramazani, H. Taghipour, (2011). Determination of Heavy Metals in Effluent and Sludge from Stone Cutting Industries, Journal of Civil and Environmental Engineering, 41 (1), 101-106.
- 2011 M. Mosaferi, **M. Shakerkhatibi**, A. Mehri, (2011). Heterotrophic Bacteria in Drinking Water in Tabriz, Scientific Journal of School of Public Health and Institute of Public Health Research, 8 (4), 83-92.
- 2010 **M. Shakerkhatibi**, H. Ganjidoust, B. Ayati, E. Fatehifar, A. Safaeian, (2010). Acrylonitrile Removal from Synthetic Wastewater Using a Lab Scale ASFFR. Journal of Civil and Environmental Engineering, 40 (1), 21-31.
- 2010 S.A. Mokhtari, M. Gholami, M. Shakerkhatibi, S.H. Mirhosseini, (2010). Influence of the concentration, pH, temperature and pressure parameters on Arsenic removal from drinking water via reverse osmosis process, Journal of Ardabil University of Medical Sciences, 10 (3), 261-269.
- 2010 A. Asl Hashemi, M. Shakerkhatibi, (2010). Plasma technique and its application in waste disposal, The Application of Chemistry in Environment, Islamic Azad University of Ahar, 1 (3), 35-45.
- 2010 M. Mosaferi, H. Taghipour, S. Nazmara, **M. Shakerkhatibi**, (2010). Chemical analysis of water used in food and drinking industries: A case study in the North West of Iran, The Application of Chemistry in Environment, Islamic Azad University of Ahar, 1 (3), 47-60.
- 2009 **M. Shakerkhatibi**, H. Ganjidoust, B. Ayati, E. Fatehifar, (2009). Isolation and identification of an acrylonitrile-degrading bacterial strain from a petrochemical wastewater treatment system activated sludge and its efficiency in acrylonitrile removal, Scientific Journal of School of Public Health and Institute of Public Health Research, 6 (3,4), 119-128.

## Papers Presented in National & International Conferences (from the most recent)

- 2015 Mohammad Mosaferi, Nader Taghipour, Mohammad Shakerkhatibi, Reza Dehghanzadeh, Ehsan Ahmadi, (2015). Development of a novel submerged membrane electro-bioreactor with pre-anaerobic reactor containing anode electrode for wastewater treatment and fouling reduction, The 12<sup>th</sup> International Conference on Membrane Science & Technology, Tehran, Iran.
- 2015 M. Mosaferi, B. Ghoreishi, S. Derafshi, A. Khalafi, **M. Shakerkhatibi**, (2015). Environmental impact assessment of sulfur granulation unit in Tabriz oil refinery, 18<sup>th</sup> Congress of Environmental Health Engineering, Shiraz, Iran.

- 2015 B. Ghoreishi, M. Mosaferi, **M. Shakerkhatibi**, A. Abdoli Seilabi, H. Aslani, M. Dolatkhah, (2015). Occurrence of *Salmonella* in processed sludge of East Azerbaijan wastewater treatment plants, 18<sup>th</sup> Congress of Environmental Health Engineering, Shiraz, Iran.
- 2014 Z. Akbari, M. Shakerkhatibi, M. Mosaferi, N. Asl Rahnema Akbari, Z. Shiri, M.R. Farshchian, R. Akbari, (2014). Isolation and identification of dominant microorganisms from activated sludge treating ABS effluents, 17<sup>th</sup> Congress of Environmental Health Engineering, Bushehr, Iran.
- 2014 M. Mosaferi, **M. Shakerkhatibi,** R. Zaree, A. Eivazian Kari, R. Pourrajab, (2014). Evaluation of energy consumption and the optimization methods in a wastewater treatment plant, 17<sup>th</sup> Congress of Environmental Health Engineering, Bushehr, Iran.
- 2014 R. Yousefi, Kh. Zoroufchi Benis, A. Behnami, **M. Shakerkhatibi,** (2014). Estimation of styrene and acrylonitrile emissions from ABS unit of Tabriz petrochemical complex, 17<sup>th</sup> Congress of Environmental Health Engineering, Bushehr, Iran.
- 2014 R. Yousefi, Kh. Zoroufchi Benis, A. Behnami, **M. Shakerkhatibi,** (2014). Modeling of styrene and acrylonitrile dispersion from ABS unit of Tabriz petrochemical complex using ISCST3, 17<sup>th</sup> Congress of Environmental Health Engineering, Bushehr, Iran.
- 2013 B. Djahed, S. Naseri, F. Khalili Nadji, M. Shakerkhatibi, M.A. Baghapour, E. Shahsavani, (2013). Quality assessment of effluent treated at the Shiraz wastewater treatment plant using CWQI for irrigation purposes, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 Babak djahed, Fariba Khalili Nadji, **Mohammad Shakerkhatibi**, Esmaeil Shahsavani, Gholamhossein Djoshani, (2013). The application of activated carbon produced from used newspaper in the removal of methylene blue dye from aqueous solution: isotherm, kinetic and thermodynamic study, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 M. Mosaferi, M. Shakerkhatibi, S. Dastgiri, M. Asghari Jafarabadi, A. Khataei, S. Sheikholeslami, (2013). Survey of arsenic and hydrochemistry of drinking water in a city located at northwest of Iran, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 A. Azari, F. Khalili Nadji, R. Rezaei Kalantari, **M. Shakerkhatibi**, R. Nazari, E. Ahmadi Rajabi, (2013). Removal of phenol from water using activated carbon coated with zero valence iron nanoparticles, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 Y. Rasoulzadeh, V. Lotfi R. Gholamnia, F. Moatar, **M. Shakerkhatibi**, (2013). A qualitative study of the distribution of asbestos fibers in the air of Tabriz. 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.

- 2013 M. Shakerkhatibi, F. Khalili Nadji, A. Safaeian, B. Djahed, A. Azari, A. Rajabi, (2013). Evaluation of domestic waste separation at source and its relationship with knowledge, attitude and practice of residents in Tabriz, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 M. Pourakbar, M. Mosaferi, **M. Shakerkhatibi**, M. Belvasi, A. Moradi, E. Fatehifar, (2013). Modeling and qualitative analysis of groundwater resources in rural areas of Tabriz using GIS, 16th Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 M. Shakerkhatibi, N. Mohammadi, A. Behrouzsarand, Kh. Zoroufchi, M. Shakeri, (2013).
  Analysis of surface ozone and nitrogen oxides in Tabriz, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 E. Fatehifar, S.M. Hedayatzadeh, A. Behrouz Sarand, M. Mosaferi, **M. Shakerkhatibi**, R. Alizadeh, (2013). MFCA: An effective tool for minimizing the environmental aspects and improving productivity, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 S. Pahlavanzadeh, **M. Shakerkhatibi**, A. Karimi Jashni, (2013). Performance of ASFFR in municipal wastewater treatment, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2013 **M. Shakerkhatibi**, M. Mosaferi, M. Asghari Jafarabadi, E. Lotfi, F. Banitorab, M. Safarzadeh, (2013). Pesticide residues in rural drinking water resources in East Azerbaijan province, 16<sup>th</sup> Congress of Environmental Health Engineering, Tabriz, Iran.
- 2012 M. Mosaferi, **M. Shakerkhatibi**, M. Hesam, (2012). Challenges in municipal solid waste management in East Azerbaijan province, The First International and 6<sup>th</sup> National Conference on Waste Management, Mashhad, Iran.
- 2012 H. Taghipour, **M. Shakerkhatibi**, M. Pourakbar, S. Jafarpour, M. Belvasi, (2012). Evaluation of corrosion and scaling in Tabriz water main, 15<sup>th</sup> Congress of Environmental Health Engineering, Gilan, Iran.
- 2012 V. Lotfi, Y. Rasoulzadeh, F. Moattar, R. Gholamnia, M. Shakerkhatibi, (2012). Survey of Airborne Asbestos Concentrations in High Traffic Areas of Tabriz, 15<sup>th</sup> Congress of Environmental Health Engineering, Gilan, Iran.
- 2011 M. Shakerkhatibi, M. Mosaferi, M. Asadi, N. Ahmadzadeh, L. Soori, M. Khezerloo, (2011). Health education needs assessment to promotion of infection control and environmental health situation in dental offices of Tabriz, The First International & 4th National Congress on Health Education & Promotion, Tabriz, Iran.
- 2010 J. Karami Eshkaftaki, A. Ebrahimi, **M. Shakerkhatibi**, E. Fatehifar, (2010). Modeling and simulation of a bio hybrid reactor by artificial neural networks to omit Acrylonitrile and Styrene concurrently from industrial sewage. 13th Iranian National Chemical Engineering

- Congress & 1st International Regional Chemical and Petroleum Engineering, Kermanshah, Iran.
- 2008 H. Ganjidoust, **M. Shakerkhatibi**, B. Ayati, E. Fatehifar, (2008). Isolation and identification of an acrylonitrile-degrading bacterial strain from an activated sludge process and its efficiency in acrylonitrile removal. 1st Iranian Petrochemical Conference, Tehran, Iran.
- 2008 **M. Shakerkhatibi**, (2008). Co-removal of VOCs emissions from ABS industry using hybrid bioreactor. Workshop of novel methods in water and wastewater treatment. Petrochemical Special Economic Zone, Mahshahr, Iran.
- 2008 **M. Shakerkhatibi**, A. Agaei, (2008). Use of plants for treatment of environmental pollution. 1st National Congress of Plant Biology, Talesh, Iran.
- 2006 A. Aslhashemi, **M. Shakerkhatibi**, (2006). Role of ventilation in underground refuges. 3rd International Congress on Health Medication & Crisis Management in Disasters, Tehran, Iran.
- 2005 M. Shakerkhatibi, P. Monadjemi, (2005). Determination of kinetic coefficients of industrial wastewater containing ethylene glycol using pilot scale SBR. 8rd Congress of Environmental Health Engineering, Tehran, Iran.