

Curriculum Vita

Dr. Akbar Eslami



Current Academic position Associate Professor of Environmental Health Engineering

Personal details

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Educational Background

- PhD** Environmental Health Engineering, Tehran University of Medical Sciences, 2007
Dissertation: Survey on The Potential of Photocatalytic Processes for Degradation of MTBE in Contaminated Waters
- MSc** Environmental Health Engineering, Tehran University of Medical Sciences, 2000
Thesis: Study on Iron and Manganese Removal Efficiency from Groundwater Resources by Aeration-Filtration
- BS** Environmental Health, Shahid Beheshti University of Medical Sciences, 1998

Major Professional Experiences

Research Experience

Water Quality Assessment
Advanced Water and Wastewater Treatment Methods
Municipal, Industrial and Health Care Waste Management
Environmental Radiation Monitoring

Teaching Experience

Environmental Chemistry
Environmental Microbiology
Environmental Toxicology
Water Quality Management
Water Treatment
Industrial Wastewater Management
Applications of Biotechnology in Environmental Health
Advanced Instrumental Analysis for Environmental Pollutants
Environmental Epidemiology

Research Interests

Wastewater: Treatability of Industrial wastewater treatment, Environmental Biotechnology, Municipal wastewater Reuse
Water: Water Quality Assessment, Advanced treatment Methods
Waste: Industrial waste disposal, Vermicomposting
Radiation: Environmental Radioactive Releases Monitoring, Background Monitoring

Peer-Reviewed Papers

A) Papers published in English language

1. **Akbar Eslami**, Ehsan Aghayani, Gholamhosein Joshani, Nadereh Hezarkhani, Mohammad Hassan Momayyezi, Babak Djahed, Atiye Haddadnejad "*Removal of parachlorophenol from the aquatic environment by recycled used tires as an adsorbent: Characterization, adsorption, and equilibrium studies*" **Journal of Advances in Environmental Health Research**, Vol. 2, No. 1, PP. 44-53, Winter 2014.
2. **Akbar Eslami**, Mahsa Moradi, Farshid Ghanbaria and Fayyaz Mehdipour "*Decolorization and COD removal from real textile wastewater by chemical and electrochemical Fenton processes: a comparative study*" **Journal of Environmental Health Science & Engineering**, 11:31, 2013.
3. **Akbar Eslami**, Mahsa Moradi, Farshid Ghanbari, Vahid Vatanpour "*Electrochemical catalytic degradation and biodegradability enhancement of real textile wastewater by anodic and cathodic reactions*" **Environmental Engineering and Management Journal**, Accepted June 28, 2013.
4. Roya Ebrahimi, Afshin Maleki, Behzad Shahmoradi, Hiua Daraei, Amir Hossein Mahvi, Amir Hoshang Barati & **Akbar Eslami** "*Elimination of arsenic contamination from water using chemically modified wheat straw*" **Desalination and Water Treatment**, Volume 51, Issue 10-12, pp. 2306-2316, 2013.
5. Mohammad Ali Zazouli, Zabihollah Yousefi, **Akbar Eslami** and Maryam Bagheri Ardebilian "*Municipal solid waste landfill leachate treatment by fenton, photo-fenton and fenton-like processes: Effect of some variables*" **Journal of Environmental Health Science & Engineering**, 9:3, 2012.
6. M. Majlesi, **A. Eslami**, Y. Mehrabi, H. Najafisaleh, F. Ghanbari "*Vermicomposting of food waste: Assessing the stability and maturity*" **Journal of Environmental Health Science & Engineering**, 9:25, 2012.
7. R. Esmaeli, A.H. Hassani, **A. Eslami**, M. Ahmadi Moghadam, A.A. Safari "*Di (2-ethylhexyl) phthalate oxidative degradation by Fenton process in synthetic and real petrochemical wastewater*" **Iranian Journal of Environmental Health Science & Engineering**, Vol. 8, No. 3, pp. 201-206, 2011.
8. Ali Assadi, **Akbar Eslami** "*Comparison of phenol photodegradation by UVH₂O₂ and Photo-Fenton processes*" **Environmental Engineering and Management Journal**, Vol. 9, No. 6, pp. 807-812, 2010.
9. F. Saghatchi, M. Salouti, **A. Eslami** and A. Sharafi "*Natural radioactivity levels of ²²⁶Ra ⁴⁰K in soil of Zanjan province, Iran*" **Radiation Protection Dosimetry**, 1-4, 2010.

10. **A. Eslami**, S. Nasser, B. Yadollahi, A. Mesdaghinia, F. Vaezi , R. Nabizadeh "*Study of methyl tert-butyl ether (MTBE) removal from contaminated water by photocatalytic process*" **Iranian Journal of Public Health**, Vol. 38, No.2, pp.18-26, 2009.
11. **A. Eslami**, S. Nasser, B. Yadollahi, A. Mesdaghinia, F. Vaezi, R. Nabizadeh, Sh. Nazmara" *Photocatalytic degradation of methyl tert-butyl ether in contaminated water by ZnO nanoparticles "* **Journal of Chemical Technology & Biotechnology**, 83: 1447-1453, 2008.
12. Saghatchi, Faranak; Salouti, Mojtaba; **Eslami, Akbar** "*Assessment of annual effective dose due to natural gamma radiation in Zanjan (IRAN)*" **Radiation Protection Dosimetry**, 1-4, 2008.
13. **A. Eslami**, S. Nasser, B. Yadollahi, A. Mesdaghinia, F. Vaezi , R. Nabizadeh "*Application of photocatalytic process for removal of methyl tert-butyl ether (MTBE) from highly contaminated water*" **Iranian Journal of Environmental Health Science & Engineering**, Vol.4, No. 4, pp. 215-222, 2007.
14. **A. Eslami**, Gh. Jahed Khaniki, M. Mehrasbi, M. Peyda and R. Azimi "*Heavy metals in edible green vegetables grown along the sites of the Zanjanrood river in Zanjan, Iran*" **Journal of Biological Sciences**, 7: 943-948, 2007.
15. Gh. Sadeghi, M. Mohammadian, M. Nourani, M. Peyda and **A. Eslami** "*Microbiological Quality assessment of rural drinking water supplies in Iran*" **Journal of Agriculture & Social Sciences**, 3: 31-33, 2007.
16. Afshin Maleki, Mohammad Ali Zazoli, **Akbar Eslami** "*Adsorption of Phenol by Commercial Powdered Activated Carbon in Aqueous Solution*", **Ibn Al-Haitham Journal for Science and Technology**, 1: 73-78, 2005.
17. A. H. Mahvi, A. Maleki, and **A. Eslami** "*Potential of Rice Husk and Rice Husk Ash for Phenol Removal in Aqueous Systems*" **American Journal or Applied Science**, 4: 321-326, 2004.

B: Papers published in Persian language

1. **A. Eslami**, A. R. Yazdanbakhsh, A. Asadi, M. Ghadimi "*Nitrate Removal from Drinking Water Using Modified Natural Clays*", **Journal of Water and Wastewater**, Volume 25, Issue 91, pp. 127-134, Autumn 2014.
2. **Eslami A**, Jamali H, Naderi S. "*Comparative Study of Bottled Water Microbial and Physicochemical Quality with National Standards and its label (A Case Study in Qazvin City, Iran)*", **Iranian Journal of Health and Environment**, 6(2):155-166, 2013.
3. Yazdanbakhsh A, **Eslami A**, Najafi A. "*Performance of Aerobic Sequencing Batch reactor (SBR) for Formaldehyde Removal from Synthetic Wastewater*", **Iranian Journal of Health and Environment**, 6(2):233-242, 2013.

4. **Eslami A**, Massoudinejad M, Ghanbari F, Veisi F, Moradi M, Mehdipour F. "*Decolorization and Mineralization of Real Textile Wastewater Using Electrogenerated Hydrogen Peroxide in the Presence of Copper Ion*", **Journal Mazandaran University of Medical Sciences**, 23(106):103-111, 2013.
5. **A. Eslami**, M. Moradi, F. Ghanbari, H. Raei Shakteae "*Study on Performance of Electro-Fenton for Color Removal from Real Textile Wastewater Based on ADMI*", **Journal of Color Science and Technology**, Vol. 7, No. 3, pp. 173-180, 2013.
6. **Akbar Eslami**, Mehdi Ghadimi "*Study of five years nitrite and nitrate content trends of Zanjan groundwater resources using GIS from 2006 to 2010*", **Journal of Health in the Field**, Vol. 1, No. 1, pp. 30-36, Spring 2013.
7. Zazouli MA., Yousefi Z., **Eslami A.**, Bagheri Ardebilian M. "*Evaluation of the Different Fenton Processes Combined with Coagulation- Flocculation Pretreatment in Landfill Leachate Treatment*", **Journal of Toloo-e-behdasht**, Vol. 11, No. 2, 9-2012.
8. **Akbar Eslami**, Mohammad Reza Massoudinejad, Farshid Ghanbari, Mahsa Moradi "*Study on Treatability of Real Textile Wastewater by Electrochemically Generated Fenton Reagent using Graphite Felt Cathode*", **Iranian Journal of Health and Environment**, Vol. 5, No. 4, pp. 273-282, 2012.
9. Mohamad Reza Massoudinejad, **Akbar Eslami**, Hamed Mohammadi1, Hossein Najafi, Behzad Rezayi Fard, Gholam Hossein Joshani "*Desalination of Saline and Brackish Waters using Carbon Aerogel Technology* ", **Iranian Journal of Health and Environment**, Vol. 5, No. 3, pp. 273-282, 2012.
10. **Eslami A**, Momayyezi MH, Esmaili D, Joshani GhH. "*Presence of Legionella Pneumophila and environmental factors affecting its growth, in the water distribution system in Taleghani hospital, Tehran*", **Pejouhandeh**, 17(1):32-7, 2012.
11. Maleki A., **Eslami A.** "*Isotherm and Kinetics of Arsenic (V) Adsorption from Aqueous Solution Using Modified Wheat Straw*", **Iranian Journal of Health and Environment**, Vol. 3, No. 4, pp. 435-450, 2011.
12. Rouhollah Rostami, Amir Nabaey, **Akbar Eslami**, and Hossein Najafi Saleh "*Survey of Optimal Conditions for Worm's Growth and Vermicompost Production of Prepared Food Wastes* " **Ofogh-e-Danesh. GMUHS Journal**, Vol.16, No.1, pp. 76-84, 2010.
13. R. Rostami, A. Nabaey, **A. Eslami**, H. Najafisaleh "*Survey of E. Foetida on pH, C/N Ration and Process's Rate in Vermicompost Production Process from Food Wastes*", **Journal of Environment Studies**, Vol. 35, No. 52, pp. 93-98, 2009.
14. Saghatchi F., Eslami A., Salouti. M. "*Assessment of Indoor Gamma Radiation and Related Annual Effective Dose in Zanjan, IRAN*", **Iranian Journal of Health and Environment**, Vol. 2, No. 2, pp. 88-93, 2009.
15. R. Rostami, A. Nabaey, **A. Eslami**, H. Najafisaleh "*Study on Effect of Preparation Time on Vermicompost Rate from Food Wastes*", **Journal of School of Health and Health Research Instituted**, Vol. 2, No. 7, pp. 69-76, 2009.

16. R. Rostami, A. Nabaey, **A. Eslami** "Survey of optimal temperature and moisture for worms. growth and operating vermicompost production of food wastes", **Iranian Journal of Health and Environment**, Vol. 1, No. 2, pp. 105-112, 2008.
17. MA. Zazouli, A. Mohseni Bandpei, **A. Eslami**, A. Sadeghi "Survey on paper recycling potential in the head offices of Mazandaran province", **Iranian Journal of Health and Environment**, Vol. 1, No. 2, pp. 99-104, 2008.
18. Saghatchi F., **Eslami A.**, Salouti M. "Assessment of Background Gamma Radiation in Outdoor Areas in Different Seasons in Zanzan", **Journal of Zanzan University of Medical Sciences and Health Services**, Vol. 15, No. 59, pp. 1-10, 2007.
19. A. H., Mahvi, **A. Eslami**, "Study on Corrosion and Scaling of Drinking Water in Water Supply Resources and Distribution System in Zanzan", **Journal of Sciences and Environmental Technology**, No. 28, 2006.
20. **Akbar Eslami**, A. H. Mahvi, S. Nasser, K. Naddafi, "Study on Iron and Manganese Removal Efficiency from Groundwater by Aeration-Filtration", **Quarterly Journal of Man and Environment**, No. 10, pp: 11-24, 2001.
21. **Eslami, A.**, Izanlou, H., Taghipour, H. "Acid rains", **Journal of Water and Environment**, No. 40, pp: 3-6, 2000.

Books (Translation)

Phosphorous and Nitrogen Removal from Municipal Wastewater by: Richard Sedlak,
Translated By: A.R. Yazdanbakhsh, **A. Eslami**, E. Bazrafshan, and G. Ghanizadeh

International Conference Presentations

1. "Photocatalytic degradation of methyl tert-butyl ether (MTBE) from contaminated water: complete mineralization", **The Third International Meeting on Environmental Biotechnology and Engineering (3IMEBE)**, 21-25 September 2008, Palma de Mallorca, Spain – *Oral presentation*
2. "Survey of Fluoride Concentration in Drinking Water Sources and Prevalence of DMFT in the 12 Years Old Students in Zanzan, Iran", **XXVIIth conference of the International Society for Fluoride Research (ISFR)**, 9-12 October 2007, Beijing, China – *Poster presentation*
3. "Heavy metals in edible green vegetables grown along the sites of the Zanzanrood river in Zanzan, Iran: Implications for human health", **5th European Congress on Tropical Medicine and International Health**, May 24–28, 2007, Amsterdam, The Netherlands – *Oral presentation*
4. "Assessment of gamma background radiation in different seasons in Zanzan", **International Conference on Environmental Radioactivity: From Measurements and Assessments to Regulation**, 23 – 27 April 2007, Vienna, Austria – *Poster presentation*

Dissertation Supervisor

1. Evaluation of sludge toxicity in Tehran water treatment plants using bioassays (To receive MSC in Environmental Health Engineering).
2. Survey of natural radionuclide concentrations such as U-238, Th-232, Ra-226, Ra-228, Pb-210, Po-210 and K-40 in bottled mineral waters of Iran-2014 (To receive MSC in Environmental Health Engineering).
3. Investigation of 4-chlorophenol removal efficiency from aqueous solution using graphene oxide nanopowder by continuous fixed bed adsorption (To receive MSC in Environmental Health Engineering).
4. An investigation into the remediation efficiency of Tetrachloroethylene contaminated water using Permeable Reactive Barrier (PRB) technology (To receive MSC in Environmental Health Engineering).
5. Survey of effective parameters on the combined sonoelectrochemical process efficiency for treatment of textile wastewater containing reactive dye in Yazdbaf factory (To receive MSC in Environmental Health Engineering).
6. Comparative survey of nitrate removal from drinking water using modified natural clays (To receive MSC in Environmental Health Engineering).
7. Process optimization of electrochemically generated Fenton's reagent using graphite and platinum electrodes for COD and acidic dye removal from textile wastewater (To receive MSC in Environmental Health Engineering).
8. Study on the efficiency of modified nanoporous graphene adsorbent for removal of 4-chlorophenol from aqueous solution (To receive MSC in Environmental Health Engineering).
9. Oxidative degradation of dioctyl phthalate (DOP) by photochemically-enhanced Fenton reaction in petrochemical wastewater plant (To receive MSC in Environmental Engineering).

Dissertation Advisor

1. Investigation of diazinon adsorption from aquatic solution by Fe₃O₄ magnetic multi wall carbon nanotube (MWCNTs) (To receive MSC in Environmental Health Engineering).
2. Evaluation of iron oxide nanoparticles loaded on clinoptilolite in the advanced treatment of effluent of wastewater treatment plant (To receive MSC in Environmental Health Engineering).
3. A Comparative study on the capability of modified zeolite with Fe and KMnO₄ for removal Fe²⁺ and Mn²⁺ from water (To receive MSC in Environmental Health Engineering).
4. Study on the efficiency of ozonation for wastewater advanced treatment in molasses-based alcohol distilleries by spiral high pressure super mixing reactor(S2MXR) (To receive MSC in Environmental Health Engineering).

5. Investigation of sewer utilization on the nitrate concentration trends in Qazvin ground water resources (To receive MSC in Environmental Health Engineering).
6. Study on performance of aerobic sequencing batch bioreactor with clinoptilolite media to remove formaldehyde from wastewater (To receive MSC in Environmental Health Engineering).
7. Survey of saline and brackish waters desalination by carbon aerogel method and comparing with Electrolysis method (To receive MSC in Environmental Health Engineering).
8. Study on the efficiency of olive mill wastewater (OMWW) treatment using integrated coagulation, acid cracking and Fenton-like oxidation processes (To receive MSC in Environmental Health Engineering).
9. Study on the effect of natural clinoptilolite on vermicompost quality produced from food waste (To receive MSC in Environmental Health Engineering).
10. Assessment of Fenton, photo-Fenton and modified Fenton in municipal landfill leachate treatment (To receive MSC in Environmental Health Engineering).
11. Optimization of net work solid waste collection and transferring system in Zanjan with utilizing suitable mathematical model and GIS (To receive MSC in Environmental Engineering).

Research Projects

1. An investigation into the remediation efficiency of Tetrachloroethylene contaminated water using Permeable Reactive Barrier (PRB) technology, 2014
2. Survey of effective parameters on the combined sonoelectrochemical process efficiency for treatment of textile wastewater containing reactive dye in Yazdbaf factory, 2013.
3. Study on the efficiency of modified nanoporous graphene adsorbent for removal of 4-chlorophenol from aqueous solution, 2012.
4. Process optimization of electrochemically generated Fenton's reagent using graphite and platinum electrodes for COD and acidic dye removal from textile wastewater, 2011.
5. A Survey of physicochemical and biological quality of leachate & its effects on groundwater sources in landfill of Zanjan, 2008.
6. Assessment of Outdoor and Indoor Environmental Gamma Radiation in Zanjan-Iran 2006.
7. Study on background radiation levels in Zanjan, Iran, 2005.

Membership in Scientific Societies

Iranian Association of Environmental Health (Directorate member)

Iranian Radiation Protection Society

Iranian Society of Nano Technology

Iranian Society of Public Health