

RESUME

PERSONAL INFORMATION

Name: Bita Ayati, Ph.D., Associate Professor

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EDUCATION

- Ph.D. in Civil (Environmental) Eng., Tarbiat Modares Univ., Sept.1999-March2005, Tehran, I.R.Iran.
- M.Sc. in Civil (Environmental) Eng., Sharif Univ. of Technology, 1996-1998, Tehran, I.R.Iran.
- B.Sc. in Chemical Engineering, Sharif University of Technology, 1992-1996, Tehran, I.R.Iran.

PROFESSIONAL EXPERIENCES

- Head of Environmental Engineering Division, Tarbiat Modares University, June 2023 till now
- Head of Environmental Engineering Division, Tarbiat Modares University, March 2020- March 2022
- Member of HSE committee, Tarbiat Modares University, Dec. 2012- Oct. 2016
- Head of Environmental Engineering Division, Tarbiat Modares University, March 2010- Dec. 2015
- Associate Professor, Civil & Env. Eng. Faculty, Tarbiat Modares University, Since Sept. 2010.
- Assistant Professor, Civil Eng. Dept., Tarbiat Modares University, July 2005-Sept. 2010.
- Head of Env. Eng. Laboratory, Tarbiat Modares University, Since 1999.
- Yekom Consulting Engineering, Literature Review of Environmental Assessment, 1996- 1997.

AWARDS

- Best University Professor, Tarbiat Modares Univ., Tehran, I.R. Iran, 2023
- Best University Professor, Tarbiat Modares Univ., Tehran, I.R. Iran, 2017
- Best University Researcher, Tarbiat Modares Univ., Tehran, I.R. Iran, 2016

- The 10th Annual Dr. Taghi Ebtekar Environmental Awards, Young Researcher, March 2015
- Nominated Best Book, IRDA2012, Tehran, I.R. Iran, 2012
- Best Book, Students' Book of the Year Award, Tehran, I.R. Iran, 2011
- Foundation Grant, Tarbiat Modares Univ., Tehran, I.R. Iran, 2011
- Best Researcher, Tarbiat Modares Univ., Tehran, I.R. Iran, 2010
- Best Paper, CELCO, Tehran, I.R. Iran, 2007
- Better Thesis in Tarbiat Modares University (TMU), Tehran, I.R. Iran, 2005
- First Rank in Ph.D. in Environmental Engineering from Tarbiat Modares University, 2005
- First Rank Ph.D. Student amongst all Ph.D. Students of I.R.Iran in the year of 2004-2005
- Thematic Man and Biosphere (MAB) Young Scientist Awards on Ecosystem and Water, 2002, United Nations Educational, Scientific and Cultural Organization (UNESCO)
- First Rank in M.Sc. in Environmental Engineering from Sharif University of Technology, 1998
- Second Rank in M.Sc. in Civil Engineering from Sharif University of Technology, 1998
- First Rank in B.Sc. in Chemical Engineering from Sharif University of Technology, 1996

PROFESSIONAL SOCIETIES

- International Water Association (IWA)
- Iranian Nanotechnology Society (ISN)
- The Iranian Society of Environmentalists (IRSEN)
- Iranian Association of Water and Wastewater Experts (IAWWE)
- Alumni Association of Sharif University of Technology
- Iranian Society for Industry Academia Collaboration

Editorial Boards of:

- Journal of Applied Research in Water and Wastewater, Univ. of Razi
- Modares Civil Engineering Journal
- Sharif Journal of Science and Technology
- Iran Water & Wastewater Association (IWWA)

RESEARCH INTEREST TOPICS

- Application of Nanotechnology in Wastewater Treatment

- Application of Advanced Oxidation Processes in Wastewater Treatment
- Polymer Application in Granulation
- Biological Industrial Wastewater Treatment
- Waste Minimization

EXPERIENCIES

- Teaching university courses: Water Treatment, Wastewater Treatment, Industrial Wastewater Treatment, Wastewater Reuse, Physicochemical Water & Wastewater Processes, Air Pollution Control and Analytical Chemistry
- Teaching in 13 scientific workshops: Sanitary & industrial wastewater treatment, waste minimization methods in industries, water consumption reduction, ...
- Supervisor of 4 research projects (Finished)
- Full cooperation in 16 research projects
- Publication of 1 book, 1 chapter of book and 192 papers in scientific national and ISI Journals
- Presentation of more than 100 presented papers at national and international conferences
- Supervisor of 3 Ph.D. thesis (in process)
- Supervisor of 6 M.Sc. thesis (in process)
- Advisor of 1 M.Sc. thesis (in process)
- Supervisor of 8 Ph.D. thesis (Finished)
- Supervisor of 57 M.Sc. thesis (Finished)
- Advisor of 12 Ph.D. thesis (Finished)
- Advisor of 35 M.Sc. thesis (Finished)

WORKSHOPS (AS TEACHER)

- Environmental Management, Fars Province, Shiraz, March 2011
- Nano technology in Water and Wastewater Treatment, Rural Water and Wastewater Company, Gilan Province, Anzali, Jan. 2011
- Recognition of Wastewater Treatment Methods in Tropical Regions, Water and Wastewater Company, Bushehr Province, Bushehr, May 2010
- Water, Life and Methods of Water consumption saving and wastewater generation minimization
- Water and Wastewater Company, Bushehr Province, Bushehr, Feb. 2009

- Importance of Wastewater Treatment ..., Rural Water and Wastewater Company, Gilan Province, Anzali, March 2009
- New Treatment Methods in Wastewater Treatment, Water and Wastewater Company, East Azarbaijan Province, Tabriz, Nov. 2009
- Methods of Saline Wastewater Treatment: Biological Systems of SBR & MBBR, Water and Wastewater Company, Hormozgan Province, Bandar Abbas, Sept. 2009
- Wastewater Treatment in Small Communities, Rural Water and Wastewater Company, Gilan Province, Rasht, Feb. & March 2008
- Environmental Impact Assessment of World Bank Projects, Water and Wastewater Company, Gilan Province, Nov. 2007 & Dec. 2008
- Rain Water Analysis, Meteorological Organization, Tehran, 2003
- Waste Minimization Methods in industry- Wood Fiber Co., 2002
- Water Consumption Minimization Methods, Water and Wastewater Company, Sistan & Baloochestan Province, Zahedan, 2001
- Microbiology in Water and Wastewater, Iranian Training Center of Industries, Tehran, Oct. 2001.

PROFESSIONAL TRAINING

- Plastics: Impacts and Action, 25 hours Professional Development Online Course, Cornell University, 17 May- 20 June 2021
- Water Initiative South Asia (WISA), 18- 20 June 2018, Istanbul, Turkey
- Matchmaking Workshop between the Leibniz Association and Iranian Researchers, 9-10 Oct. 2017, Berlin, Germany.
- Middle East and North Africa Group Invitation Program, Japan Foundation, 26 Feb.- 7 March 2017, Japan
- International Visitor Leadership Program on "Management of Wetlands and Marshes", 14 March- 1 April 2016, USA
- EABRN-UNESCO Training Workshop on Remote Sensing & GIS for Biosphere Reserve Management, 11-22 April 2011, Beijing, China
- The Middle East Group Study (MEGS) Program 2009, Japan Foundation, 1-21 Nov. 2009, Japan
- Workshop on Strategies for Clean Air in Tehran, Meteorological Organization (IRIMO), 10-12 June 2006, Tehran, I.R. Iran
- Workshop on PCBs Inventory Plan, 1 Dec. 2004, Department of Environment (DOE) and United Nations Develop Program (UNDP), Tehran, I.R. Iran.
- Workshop on E-learning, 11-12 March 2004, TMU, Tehran, I.R. Iran.
- Workshop on Use of Internet in Education, Feb. 2004, TMU, Tehran, I.R. Iran.

- Workshop on Rain Water Analysis, Organized by Organization of Metrological Research and Tarbiat Modares University, 9-10 December 2003, Tehran, I.R. Iran.
- Workshop on Green Productivity (GP) for Curriculum Developers, Organized by Organization Research and Planning (OERP) with support from Asian Productivity Organization (APO), DOE, and National Iranian Productivity Organization (NIPO), 30 Nov. - 4 Dec. 2003, Tonkabon, Mazandaran Province, I.R. Iran.
- Green Productivity in Iran Khodro Company (IKCo), Organized by IKCo and NIPO, 28-29 Oct. 2003, Tehran, I.R. Iran.
- The First National Workshop on Industrial Hazardous Waste Management, Organized by Ministry of Industries and Mines: Environmental Office, Brandenburg Technical University (BTU): Chair of Chemical Engineering & Hazardous Wastes, Department of Environment: Water & Soil Pollution Office, 19-21 July 2003, Tehran, I.R. Iran.
- Workshop on Water and Wastewater Treatment in Urban Areas, Nov. 2002, Tehran, I.R. Iran.
- Advanced Workshop on Green Productivity for Educators, Organized by APO, DOE and NIPO, 1-5 Sept. 2002, Tehran, I.R. Iran.
- Workshop on GP in Petrochemical Industries Organized by APO, DOE, National Petrochemical Company (NPC) and Poly Acryl Company (PAC), 16-18 July 2002, Isfahan, I.R. Iran.
- Technical Workshops on Modern Measurement Instruments Organized by Azerbaijan Water and Electricity Complex Research Center, 5-6 March 2000, Tabriz, Azarbaijan Province, I.R. Iran.
- Technical Workshops Organized by Air Quality Control Company & Japan Int. Cooperation Agency (JICA) in the areas of Air Pollution/Quality Measurement, Mobile Sources, Traffic & Driving Cycle, Stationary Sources & Emission Inventory, Air Pollution Modeling & Simulation, 12-15 Oct. 1997, Tehran, I.R. Iran.

PROJECTS

- Use of Biological and Nano Technology Advanced Methods in Removing Hard- Biodegradable Pollutants, 2008- 2014
- Control and Minimization of *Azolla* in Anzali Wetland, UNESCO, 2008
- Investigation of Sanitary and Industrial Wastewater Effects on Siah Keshim Reserved Area, 2006-2008
- Preparation of Information Bank for Municipal Wastewater Researches and Projects, 2003-2004, Tehran Sewage Company.
- Investigation of Sanitary and Industrial Wastewater Effects on Anzali Reserved Wetland, 2002-2003, United Nations Educational, Scientific and Cultural Organization (UNESCO).
- Preparation of Discharge Criteria of Non Municipal Wastewater to the Great Tehran Sewage Net Work System, 2001-2003, Tarbiat Modares University (TMU) and Tehran Sewage Company.
- Green Productivity Demonstration Project (GPDP) in Iran Khodro Company, 2000-2001, APO & NIPO.
- Investigating of Wastewater Reduction and Minimization from the Source Point in Main Iranian Industries, 1998-2001, Tarbiat Modares University.

- Investigating of the Produced Pollution (Water, Air, Solid Waste) and its Impact Assessment and Minimizations in Automobile, Machinery, and Foundry Industries, 1998.
- Biological Treatment of Iran Wood Fiber Wastewater by Sequencing Batch Reactors (SBRs), 1997-1998, Sharif University of Technology and Tarbiat Modares University.
- Physicochemical Treatment of Iran Wood Fiber Wastewater, 1997- 1998 Sharif University of Technology and Tarbiat Modares University.
- Full Scale Wastewater Treatment Plant Having Physicochemical, Anaerobic and Aerobic Treatment Processes Studies of Wood Fiber Wastewater Industries at Iran Wood Fiber Company, 2004, I.R. Iran.
- Investigating of Wastewater Reduction and Minimization from the Source Point in Main Iranian Industries, 1998-2001, Tarbiat Modares University.
- Biological Treatment of Iran Wood Fiber Wastewater by Sequencing Batch Reactors (SBRs), 1997-1998, Sharif University of Technology and Tarbiat Modares University.
- Physicochemical Treatment of Iran Wood Fiber Wastewater, 1997- 1998 Sharif University of Technology and Tarbiat Modares University.
- Investigation of Sanitary and Industrial Wastewater Effects on Siah-Keshim Reserved Area, 2004-2007.
- Preparation of Practical Guideline Manual for Rain Water Analysis, 2003-2004, Organization of Metrological Research.
- Preparation of Information Bank for Municipal Wastewater Researches, 2003-2004, Tehran Sewage Company.

PUBLICATIONS (BOOKS & JOURNALS)

BOOK

- B. Ayati, H. Ganjidoust, M. Delnavaz, Application of Moving Bed Biofilm Reactor (MBBR) in Sanitary & Industrial Wastewater Treatment, Tarbiat Modares Univ. Pub., Feb. 2011 (in Persian)
- Sh. Taghipour, B. Ayati, Chapter 5: Petroleum Wastewater Treatment using Granular Sequencing Batch Reactor: Physical Characteristics and Capabilities of the Aerobic Granules, “Editor: Adriana Magdalena, Wastewater Treatment: Processes, Uses and Importance”, Novapublishers, Oct. 2019

JOURNALS

1. H. Sadati, B. Ayati, Using A Promising Biomass-Based Biochar in Photocatalytic Degradation: Highly Impressive Performance of RHB/SnO₂/Fe₃O₄ for Elimination of AO7, Journal of Photochem & Photobio Sci, 10.1007/s43630-023-00389-2
2. M.A. Mousavian, S. Hosseini, B. Ayati, Bioelectricity Generation and Decolorization of Reactive Blue 221 Using a Modified Cathode Dual-Chamber Microbial Fuel Cell, Water, 15 (1), 101, 2023, 10.3390/w15010101
3. S. Entezari, M. Abdullah Al, A. Mostashari, H. Ganjidoust, B. Ayati & J. Yang, Microplastics in urban waters and its effects on microbial communities: A critical review, Environmental Science and Pollution Research, 29 (59):88410-88431., Dec. 2022, 10.1007/s11356-022-23810-2

4. M. Ghalebizade, B. Ayati, Modeling, optimization and kinetic investigation of Acid Orange 7 degradation using ozonation in a cylindrical reactor with recirculation flow with RSM, *Modares Civil Engineering Journal*, Vol. 22, No. 4, pp. 19-31, 2022 (in Persian).
5. M. Seyyedi, B. Ayati, Design and optimization of a sequential and hybrid AOP system using RSM, *Applied Water Engineering and Research* Vol. 11, No. 3, pp. 381- 393, 2023 10.1080/23249676.2022.2125092.
6. F. Habibi, M. Seyyedi, B. Ayati, Synthesis and Application of Reusable and Magnetic RGO/Fe₃O₄ Nanocomposites in BR46 Removal from an Aqueous Solution; Future Prospects of an Efficient Adsorption Platform, *J. Mater. Environ. Sci.*, Vol. 13, Issue 8, pp. 900-913, 2022.
7. Z. Pouramini, B. Ayati, A. Babapoor, Enhancing PFC ability to dye removal and power generation simultaneously via conductive spheres in the anodic chamber, *Journal of Electroanalytical Chemistry*, Vol. 917, 15 July 2022, 116410
8. N. Taheri Ashtiani, B. Ayati, Using Chitosan-Based Heterogeneous Catalyst for Degradation of Acid Blue 25 in the Effective Electro-Fenton Process with Rotating Cathodes, *Journal of Electroanalytical Chemistry*, Volume 905, 15 Jan. 2022, 115983, 10.1016/j.jelechem.2021.115983
9. A.R. Arhami Dolatabad, H. Ganjidoust, B. Ayati, Application of Waste-Derived Activated Red Mud/Base Treated Rice Husk Composite in Sulfate Adsorption from Aqueous Solution, *International Journal of Environmental Research*, 16(1), pp.1-16., 2022, 10.1007/s41742-021-00381-7
10. P. Zanganeh Ranjbar, B. Ayati, H. Ganjidoust, Textile Dye Degradation in a Novel Photocatalytic Baffled Reactor Using Immobilized TiO₂ Nanoparticles, *International Journal of Environment and Waste Management (IJEWM)*, Vol. 29, No. 3, pp. 241-261, 2022, 10.1504/IJEWM.2022.10035241
11. M.A. Ahangarnokolaie, B. Ayati, and H. Ganjidoust, 2021. Simultaneous and Sequential Combination of Electrocoagulation and Ozonation by Al and Fe Electrodes for DirectBlue71 Treatment in a New Reactor: Synergistic effect and Kinetics Study, *Chemosphere*, 285, p.131424.
12. R. Nayeibi Gavgai, B. Ayati, H. Ganjidoust, Degradation of AB113 using Combined Photocatalysis and Biological Processes: Economic Choice and Enhanced Removal of Aromatic Compounds, *Journal of Biological Environment and Pollution*, Vol. 1, No. 2, 2021
13. S. Hooshmand, B. Ayati, Optimization of Effective Parameters in Removal of Acid Blue 25 by Fenton Process with the aim of Reducing Iron Consumption, *Journal of Environmental Science and Technology (JEST)*, Vol 23, No. 4, July, 2021, 10.22034/jest.2021.37319.4362 (in Persian).
14. M.M. Bakhshi, B. Ayati, H. Ganjidoust, Soil Stabilization by Nano Polymer Polylatice (Case Study: Hossein Abad Area of Qom Province, *Amirkabir Journal of Civil Engineering*, Vol. 52, Issue 12, March 2021, pp. 3237-3248, 10.22060/ceej.2019.16402.6211 (in Persian).
15. M.R. Khaksar, H. Ganjidoust, B. Ayati, Photocatalytic Oxidation of Waste Activated Sludge Using a Backlight Photocatalytic Reactor, *Desalination & Water Treatment*, Vol. 235, pp. 117-126, 2021, 10.5004/dwt.2021.27657
16. M.M. Seyyedi, B. Ayati, Treatment of Petroleum Wastewater using a sequential Hybrid System of Electro-Fenton and NZVI Slurry Reactors, *Future Prospects for an Emerging Wastewater Treatment Technology*, *International Journal of Environment and Waste Management*, Vol. 28, No. 3, pp. 328-348, 2021, 10.1504/IJEWM.2021.10035651.
17. M. Alimohammadi , B. Ayati, Remarkable Phosphate Removal from Saline Solution by using a Novel Trimetallic Oxide Nanocomposite, *Water Reuse*, Vol. 11, No. 3, pp. 410-424, Sep. 2021, 10.2166/wrd.2021.007
18. E. Ghate, H. Ganjidoust, B. Ayati, The thermodynamic, kinetic, and isotherms of Sulfamethoxazole adsorption using magnetic activated carbon nanocomposite and its reusability potential,

19. M. Ghalebizade, B. Ayati, Mass Transfer Phenomenon in Baffled Reactor using Electro-Peroxone Process: Effects of Electrode Arrangement and Flow Rate, *Journal of Electroanalytical Chemistry*, Vol. 891, 15 June 2021, 115258, 10.1016/j.jelechem.2021.115258
20. M. A. Ahangarnokolaie, B. Ayati, H. Ganjidoust, Novel Baffled Configuration of Electro-Coagulation-Flotation Process for Treatment and Fate of Direct Blue 71: Sludge Characteristics and Process Optimization, *Environmental Technology & Innovation*, Vol. 22, May 2021, 101459, 10.1016/j.eti.2021.101459.
21. R. Rahmati, B. Nayebe, B. Ayati, Investigating the Effect of Hydrogen Peroxide as an Electron Receptor in Increasing the Capability of Slurry Photocatalytic Process in Dye Removal, *Water Science and Technology*, Vol. 83, No. 10, pp. 2414- 2423, 2021, 10.2166/wst.2021.136
22. B. Ayati, Z. Ghorbani, Enhancement of the electro-activated persulfate process in dye removal using graphene oxide nanoparticle, *Water Science and Technology*, Vol. 83, No. 9, pp. 2169–2182, 2021, 10.2166/wst.2021.128
23. B. Nayebe, B. Ayati, The Degradation of Emerging Amoxicillin Compound from Water using the Electro-Fenton Process with An Aluminum Anode, *Water Conservation Science and Engineering*, Vol. 6, No. pp. 45–54, 2021, 10.1007/s41101-021-00101-4
24. M. Ghalebizade, B. Ayati, Investigating Electrode Arrangement and Anode Rule on Dye Removal Efficiency of Electro- Peroxone as an Environmental Friendly Technology, *Separation and Purification Technology*, Volume 251, 15 Nov. 2020, 117350, 10.1016/j.seppur.2020.117350.
25. A. Ahmadi Zahrani, B. Ayati, Improving Fe-based Heterogeneous Electro-Fenton Nano Catalyst using Transition Metals in a Novel Orbiting Electrodes Reactor, *Chemosphere*, Vol. 256, Oct. 2020, 127049, 10.1016/j.chemosphere.2020.127049.
26. A. Ahmadi Zahrani, B. Ayati, Using heterogeneous Fe-ZSM-5 nanocatalyst to improve the electro Fenton process for acid blue 25 removal in a novel reactor with orbiting electrodes, *Journal of Electroanalytical Chemistry*, Vol. 873, 15 Sept. 2020, 114456, 10.1016/j.jelechem.2020.114456.
27. Z. Ghorbani, B. Ayati, Performance Comparison of Fe^{2+} Activated Persulfate and Electro-Persulfate Process in Acid Blue 25 Removal from Aqueous Solution: Operating Conditions and Reaction Velocity, *Amirkabir Journal of Civil Engineering*, Vol. 52, No. 7, pp. 1729-1742, 2020, 10.22060/ceej.2019.15641.5979 (in Persian).
28. S. Ataei, B. Ayati, Capability of New Biochar/ZnO/SnO₂ Nanocomposite in Removing Acid Orange 7 Solution, *Modares Civil Engineering Journal*, Vol. 20, No. 3, pp. 25-40, 2020 (in Persian).
29. P. Arbab, B. Ayati, M.R. Ansari, Optimization and Comparison of Single and Combined Processes using Hydrodynamic Cavitation for Dye Removal, *J. of Water and Wastewater*, Vol. 31, No. 2, pp. 24-42, 2020 (in Persian).
30. M.R. Khaksar, H. Ganjidoust, B. Ayati, Solubilisation of Waste Activated Sludge by Ultrasonic Bath Pre-treatment, *Modares Civil Engineering Journal*, Vol. 19, No. 5, pp. 111-121, 2019 (in Persian).
31. M. Nazari, B. Ayati, Removing Sodium Dodecyl Benzene Sulfonate Using a Hybrid Electrocoagulation/Flotation and Photocatalytic System, *Journal of Water and Environmental Nanotechnology*, Vol. 4, No. 3, pp. 236-243, Summer 2019, 10.22090/jwent.2019.03.006.
32. A. Vakili Tajareh, H. Ganjidoust, B. Ayati, Synthesis of TiO₂/Fe₃O₄/MWCNT Magnetic and Reusable Nanocomposite with High Photocatalytic Performance in the Removal of Colored Combinations from Water, *Journal of Water and Environmental Nanotechnology*, Vol. 4, No. 3, pp. 198- 212, Summer

33. M. Ghalebizade, B. Ayati, Acid Orange 7 Treatment and Fate by Electro-Peroxone Process using Novel Electrode Arrangement, *Chemosphere*, Vol. 235, pp. 1007-1014, Nov. 2019, 10.1016/j.chemosphere.2019.06.211.
34. M. Keramati, B. Ayati, Petroleum wastewater treatment using a combination of electrocoagulation and photocatalytic process with immobilized ZnO nanoparticles on concrete surface, *Process Safety and Environmental Protection*, Vol. 126, pp. 356-365, June 2019, 10.1016/j.psep.2019.04.019
35. S. Irankhah, A. Abdi Ali, M. Mallavarapu, M.R. Soudi, S. Subashchandrabose, S. Gharavi, B. Ayati, Ecological Role of *Acinetobacter Calcoaceticus* GSN3 in Natural Biofilm Formation and its Advantages in Bioremediation, *Biofouling: The Journal of Bioadhesion and Biofilm Research*, Vol. 35, Issue 4, pp. 377- 391, 2019, 10.1080/08927014.2019.1597061
36. Vakili Tajareh, H. Ganjidoust, B. Ayati, Photocatalytic Removal of Azo Dye Acid Red 14 from Water by Magnetic Nanocomposite TiO/FeO/CNT, *Journal of Color Science & Technology*, Vol. 13, Issue 1, Spring 2019, pp. 75-87 (in Persian).
37. P. Zanganeh Ranjbar, B. Ayati, H. Ganjidoust, Kinetic Study on Photocatalytic Degradation of Acid Orange 52 in a Baffled Reactor using TiO₂ Nanoparticles, *Journal of Environmental Sciences*, Vol. 79, pp. 213-224, May 2019, 10.1016/j.jes.2018.06.012
38. P. Arbab, B. Ayati, M.R. Ansari, Application of Hydrodynamic Cavitation Process for Dye Removal and Optimization based on Energy Consumption, *J. of Environmental Sciences*, Vol. 16, No. 3, pp. 119-134, Autumn 2018.
39. H. Kalhor, H. Ganjidoust, B. Ayati, H. Statistical Analysis of Simultaneous Removal of Salinity and Organic Loading from Wastewater using Phytoremediation Process, *Modares Civil Engineering Journal*, Vol. 18, Issue 3, pp. 207- 220, Autumn 2018 (in Persian).
40. P. Arbab, B. Ayati, M.R. Ansari, Reducing the Use of Nanotitanium Dioxide by Switching from Single Photocatalysis to Combined Photocatalysis-Cavitation in Dye Elimination, *Process Safety and Environmental Protection*, Vol. 121, pp. 87-93, Jan. 2019, 10.1016/j.psep.2018.10.012
41. S. Irankhah, A. Abdi Ali, M.R. Soudi, S. Gharavi, B. Ayati, Highly Efficient Phenol Degradation in A Batch Moving Bed Biofilm Reactor: Benefiting from Biofilm-Enhancing Bacteria, *Journal of Microbiology and Biotechnology*, Vol. 34, No. 164, Online: Oct. 2018, 10.1007/s11274-018-2543-3.
42. M. Keramati, B. Ayati, Petroleum Wastewater Treatment and Optimization of Effective Parameters using Electrocoagulation Process, *Modares Civil Engineering Journal*, Vol. 18, Issue 5, pp. 177- 187, Summer 2019 (in Persian).
43. H. Arabyarmohammadi, A. Khodadadi Darban, M. Abdollahy, B. Ayati, Simultaneous immobilization of heavy metals in soil environment by pulp and paper derived nanoporous biochars, *Journal of Environmental Health Science and Engineering*, Vol. 16, Issue 2, pp. 109–119, Dec. 2018, 10.1007/s40201-018-0294-6
44. S. Ghobadian, H. Ganjidoust, B. Ayati, N. Soltani, The Growth and Quality Optimization of *Spirulina* Biomass by Changing the Dilution of Medium and Using the Aeration Cycle, *Modares Journal of Biotechnology*, Vol. 9, Issue 3, Summer 2018, pp. 385- 393 (in Persian)
45. M. Nazari, B. Ayati, Investigation of Anionic Surfactant Removal using Unipolar Electro-Flotation and Electro-Coagulation, *J. of Water and Wastewater*, Vol. 29, Issue 3, July and Aug. 2018, pp. 54-65, 10.22093/wwj.2017.72005.2316 (in Persian)
46. H. Arabyarmohammadi, A.K. Darban, M. Abdollahy, R. Yong, B. Ayati, A. Zirakjou, S. E. A. T. M. van der Zee, Utilization of a Novel Chitosan/Clay/Biochar Nanobiocomposite for

Immobilization of Heavy Metals in Acid Soil Environment, *Journal of Polymers and the Environment*, Vol. 26, Issue 5, pp. 2107–2119, May 2018, 10.1007/s10924-017-1102-6

47. H. Arabyarmohammadi, A. Khodadadi Darban, S. E. A. T. M. van der Zee, M. Abdollahy, B. Ayati, Fractionation and Leaching of Heavy Metals in Soils Amended with a New Biochar Nanocomposite, *Environmental Science and Pollution Research*, Vol. 25, Issue 7, pp. 6826–6837, March 2018, 10.1007/s11356-017-0976-0
48. S. Ghobadian, H. Ganjidoust, B. Ayati, N. Soltani, The Innovative Engineered Photobioreactor to Optimize the Amount of Microalgae *Spirulina* Biomass, *Nova Biologica Reperta*, Vol. 5, Issue 1, pp. 13-25, 2018
49. M.A. Ahangar, H. Ganjidoust, B. Ayati, Optimization of Parameters Depended on the Electrode in the Dye Treatment by Use of the Electro- Coagulation- Flotation Process, *Sharif J. of Science and Technology*, Vol. 34.2, Issue 1 & 2, pp. 25- 33, Spring 2018 (in Persian)
50. P. Zanganeh Ranjbar, B. Ayati, H. Ganjidoust, Modeling of a Photocatalytic Baffled Reactor to Degrade Colored Wastewater using Response Surface Methodology, *Modares Civil Engineering Journal*, Vol. 18, No. 1, pp. 113-122, Spring 2018 (in Persian)
51. M. A. Ahangarnokolaie, H. Ganjidoust, B. Ayati, Optimization of Parameters of Electrocoagulation/ Flotation Process for Removal of Acid Red 14 with Mesh Stainless Steel Electrodes, *Journal of Water Reuse and Desalination*, Vol. 8, No., 2, pp.278-292, 2018, 10.2166/wrd.2017.091
52. Sh. Taghipour, B. Ayati, M. Razaei, Study of the SBAR Performance in COD Removal of Petroleum and MTBE, *Modares Civil Engineering Journal*, Vol. 17, Issue 4, pp. 27- 37, Winter 2017 (in Persian).
53. H. Amiri, B. Ayati, H. Ganjidoust, Elimination of Dye-Containing Material in Photocatalytic Process using Photocatalytic Cascade Disc Reactor Coated with ZnO Nano-Particles, *Modares Civil Engineering Journal*, Vol. 17, No. 2, pp. 11-20, Summer 2017 (in Persian).
54. M.A. Ahangar, H. Ganjidoust, B. Ayati, Colored Wastewater Treatment using Electro-coagulation-flotation Method with Mesh Stainless Steel Electrode, *Journal of Environmental Sciences*, Vol. 43, Issue 2, Summer 2017, pp. 195- 206 (in Persian)
55. A.H. Sayyazadeh, H. Ganjidoust, B. Ayati, Removal Mechanisms Involved in the Petroleum Refinery Wastewater Treatment by MBBR System, *J. of Water and Wastewater*, Volume 28, Issue 3, pp. 87- 96, 10.22093/wwj.2016.40798 (in Persian)
56. Sh. Taghipour, B. Ayati, Cultivation of Aerobic Granules through Synthetic Petroleum Wastewater Treatment in a Cyclic Aerobic Granular Reactor, *Journal of Desalination and Water Treatment*, Vol. 76, pp. 134–142, May 2017, 10.5004/dwt.2017.20779
57. F. Soroush, H. Ganjidoust, B. Ayati, Removal of Petroleum Hydrocarbons from Contaminated Waters using a Solar Photocatalytic Process, *Journal of Ferdowsi Civil Engineering*, Vol. 29, No.1, pp. 37-48, Spring 2017, 10.22067/civil.v29i1.42661 (in Persian)
58. M.J. Zoqi, H. Ganjidoust, N. Mokhtarani, B. Ayati, Effect of Inorganic Material and Non-uniform Electrokinetic on Solidification/Stabilization of Lead, Zinc and Arsenic, *Sharif J. of Science and Technology*, Vol. 33.2, Issue 1.2 - pp. 79- 89, Spring 2017 (in Persian)
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