

BEHNAM HATAMI

Shiraz, Iran

+98 (917) 701-6816

bhatami88@yahoo.com bhatami@ssu.ac.ir

<https://scholar.google.com/citations?user=6UjgXqsAAAAJ&hl=en>

SUMMARY

- Highly motivated researcher with 8 years of experience in the environmental health engineering and chemical laboratories resulting in 16 publications in peer-reviewed scientific journals, and 7 presentations at the national and international conferences.
- Cross-functional collaboration as demonstrated by merging interdisciplinary sciences (environmental health engineering, chemistry, and artificial neural network) resulting in 1 outstanding dissertation award and 1 received funding from Iran National Science Foundation (INSF).
- I specialize in technologies for converting bio-solids and biomass to energy, biofuels production (especially biodiesel), and wastewater treatment processes.
- My top skills include process design and optimization, mathematical and statistical modeling of the chemical processes, artificial intelligence, and optimization algorithms.

EDUCATION

- 2016 – 2022
Ph.D., Environmental Health Engineering, Yazd University of Medical Sciences, Iran
Dissertation Title: *Continuous conversion of sewage sludge into biodiesel in a packed-bed reactor via transesterification catalyzed by a heterogeneous solid acid catalyst.*
- 2009 – 2013
M.Sc., Environmental Health Engineering, Kerman University of Medical Sciences, Iran
Thesis Title: *Enzymatic transesterification of *Nannochloropsis oculata* microalga's oil into biodiesel using immobilized *Rhizopus Oryzae* as a catalyst.*
- 2003 – 2007
B.Sc., Environmental Health Engineering, Isfahan University of Medical Sciences, Iran

POSITIONS

● 2014 – 2016

HEAD OF DEPARTMENT, Department of Environmental Health Engineering, Zarand Faculty of Medical Sciences, Iran

● 2013 – 2014

ADJUNCT FACULTY MEMBER, Department of Environmental Health Engineering, Kerman University of Medical Sciences, Iran

● 2010 – 2012

DESIGNER AND CONSULTANT, DARYAROOD-JONOB Consulting Engineering Company, Kerman, Iran

HONORS AND AWARDS

● Developing a packed-bed reactor for continuous conversion of sewage sludge into biodiesel. (Media coverage of this project by Islamic Republic of Iran Broadcasting (IRIB) NEWS AGENCY.

Link: <https://www.iribnews.ir/00E9Mo>

● Outstanding Ph.D. dissertation and received research funding from Vice-Presidency for Science and Technology, Iran National Science Foundation (INSF), Iran, 2019.

● Outstanding Debate Team, 8th Iranian Students Debate Championship, Provincial Stage, Iran, 2019.

● Ph.D. Student of the Year-Environmental Health Engineering, Yazd University of Medical Sciences, Yazd, Iran, 2019.

● Outstanding Idea, the First National IDEA Show, Provincial Stage, Azad Islamic University of Yazd, Iran, 2018.

● Outstanding Presenter, 3m-thesis Competition, Provincial Stage, Yazd, Iran, 2018.

● Outstanding M.Sc. Thesis, 5th National Scientific Festival on Environmental Health, Iran, 2013.

RESEARCH INTERESTS

● Wastewater Treatment Technologies

● Renewable Energies

● Biosolids-to-Energy

● Resource Recovery

WORK EXPERIENCE

2016 – 2022

RESEARCH ASSISTANT, Environmental Science and Technology Research Center, Yazd, Iran

- Performance analysis and mathematical modeling of two wastewater treatment technologies (e.g., IFAS and MBBR) for biological treatment of gray-water.
- Fabricating a heterogeneous solid acid catalyst derived from sewage sludge for the catalytic transformation of sludge into biodiesel.

2010 – 2012

DESIGNER AND CONSULTANT, DARYAROOD-JONOB Consulting Engineering Company, Kerman, Iran

- Design of the wastewater collection, transmission and treatment projects.

2009 – 2013

RESEARCH ASSISTANT, Department of Environmental Health Engineering, Kerman University of Medical Sciences, Iran

- The investigation of dairy industry wastewater treatment and simultaneous electricity generation using microbial fuel cell technology.
- The growth of *Nannochloropsis oculata* microalgae in Bubble-Column photobioreactor and producing biodiesel from it.

TEACHING EXPERIENCE

2014 – 2016

ADJUNCT FACULTY MEMBER, Department of Environmental Health Engineering, Zarand Faculty of Medical Sciences, Iran

- Teaching environmental health engineering courses, including Environmental Chemistry, Renewable Energies, Fluid Mechanics, Design of Wastewater Collection Network, Design of Water Transmission and Distribution Network.

2013 – 2014

ADJUNCT FACULTY MEMBER, Department of Environmental Health Engineering, Kerman University of Medical Sciences

- Teaching environmental health engineering courses, including Fluid Mechanics, Design of Wastewater Collection Network, Design of Water Transmission and Distribution Network.

MASTER STUDENT ADVISOR, Neda Pirmoradi, Department of Environmental Health Engineering, Yazd University of Medical Sciences

- Thesis Title: *Optimization of biodiesel production from poultry slaughterhouse wastewater treatment plant sludge (Case study: Shahed slaughterhouse in Yazd city)*, Date Graduated: March 2020.

PUBLICATIONS

Peer-Reviewed Journal Publications:

1. **Hatami B**, Ebrahimi AA, Ehrampoush MH, Salmani MH, Tamaddon F, Mokhtari M. *An efficient heterogeneous solid acid catalyst derived from sewage sludge for the catalytic transformation of sludge into biodiesel: Preparation, characterization, and arylation process modeling.* Journal of Cleaner Production. 355 (2022):131809. **(Citations: 0)**
2. N. Pirmoradi, M.T. Ghaneian, M.H. Ehrampoush, M.H. Salmani, **B. Hatami**, *The Conversion of Poultry Slaughterhouse Wastewater Sludge into Biodiesel: Process Modeling and Optimization*, Renewable Energy, 178 (2021) 1236-1249. **(Citations: 4)**
3. **B. Hatami**, A. Ebrahimi, M.H. Ehrampoush, M.H. Salmani, A. Dalvand, N. Pirmoradi, I. Angelidaki, I.A. Fotidis, M. Mokhtari, *Recovery of Intermittent Cycle Extended Aeration System Sludge through Conversion into Biodiesel by In-situ Transesterification*, Renewable Energy, 163 (2021) 56-65. **(Citations: 4)**
4. M. Ansari, S. Sedighi-Khavida, **B. Hatami**, *Toxicity, Biodegradability and Detection Methods of Glyphosate; the Most Used Herbicide: A Systematic Review*, Journal of Environmental Health and Sustainable Development, 4 (2019) 731-743. **(Citations: 8)**
5. **B. Hatami**, S. Sedighi Khavidak, *Municipal Sewage Sludge to Biodiesel as a Promising Renewable Fuel for the Future of Energy*, Journal of Environmental Health and Sustainable Development, 3 (2018) 616-617. **(Citation: 0)**
6. M. Malakootian, **B. Hatami**, S. Dowlathshahi, A. Rajabizadeh, *Growth and Lipid Accumulation in Response to Different Cultivation Temperatures in*

Nannochloropsis oculata for Biodiesel Production, Environmental Health Engineering and Management Journal, 3 (2016) 29-34.

(Citation: 6)

7. S. Dolatshahi, **B. Hatami**, A. Rajabizadeh, H. Jafari Mansoorian, B. Rajabizadeh, *Determination of Lead Concentration in High-consumed Commercial Fruit juices Marketed in Kerman city*, Health and Development Journal, 5 (2016) 134-141.

(Citation: 0)

8. M. Malakootian, **B. Hatami**, S. Dowlatshahi, A. Rajabizadeh, *Optimization of Culture Media for Lipid Production by Nannochloropsis oculata for Biodiesel Production*, Environmental Health Engineering and Management Journal, 2 (2015) 141-147.

(Citation: 19)

9. M. Malakootian, **B. Hatami**, S. Dowlatshahi, A. rajabizadeh, *Evaluation of Factors Affecting on Lipid Extraction for Recovery of Fatty Acids from Nannochloropsis oculata Micro-algae to Biodiesel Production*, Environmental Health Engineering and Management Journal, 1 (2014) 19-24.

(Citation: 5)

10. M. Malakootian, **B. Hatami**, S. Dolatshahi, A. Rajabzadeh, *Survey of Solvent Type and Drying of Biomass Effects on Lipid Extraction from Nannochloropsis Oculata for Biodiesel Production*, Iranian Journal of Health and Environment, 7 (2014) 11-20.

(Citation: 3)

11. M. Malakootian, **B. Hatami**, s. dolatshahi, a. rajabizade, *Determination of Optimal Temperature of Nannochloropsis Oculata Microalgae for Biofuel Production (Biodiesel)*, Energy Engineering & Management, 4 (2014) 62-69.

(Citation: 2)

12. M. Malakootian, **B. Hatami**, S. Dolatshahi, A.J.T. Rajabizadeh, *Effect of Culture Media on the Cell Growth, Quantity and Quality of Biomass of Nannochloropsis Oculata for Biodiesel Production*, Journal of Toloo-e-behdasht, 12 (2013) 168-183.

(Citation: 2)

13. M. Malakootian, **B. Hatami**, *Survey of Chemical Composition and Antibacterial Activity of Rosmarinus Officinalis Essential Oils on Escherichia Coli and Its Kinetic*, Journal of Toloo-e-behdasht, 12 (2013) 1-13.

(Citation: 13)

14. M. Malakootian, **B. Hatami**, *Dairy Wastewater Treatment and Simultaneous Electricity Generation Using Microbial Fuel Cell Technology*, Journal of Environmental Studies, 39 (2013) 83-92.
(Citation: 0)
15. H. Jafari Mansoorian, A.R. Yari, S. Dowlatshahi, A. Rajabizadeh, N. Khanjani, **B. Hatami**, *Hazardous and Industrial Wastes Management: A Case Study of Khazra Industrial Park, Kerman*, Archives of Hygiene Sciences, 2 (2013) 79-90.
(Citation: 8)
16. H. Jafari Mansoorian, A. Rajabizadeh, M. Jafari Modrek, S. Dowlatshahi, **B. Hatami**, *Water Health Indices in Kerman Swimming Pools, in 2011*, Health and Development Journal, 2 (2013) 128-137.
(Citation: 17)

PRESENTATIONS AND INVITED LECTURES

1. **Paper Presentation**, *A Green and highly-Recoverable Heterogeneous Acid Catalyst derived from Sewage Sludge for the Catalytic Transformation of Sludge into Biodiesel*, 4th International Conference on Environmental Health, Yazd University, December, 2021.
2. **Paper Presentation**, *Application of response surface methodology and artificial neural network to model the conversion of poultry slaughterhouse wastewater sludge into biodiesel*, 3th International and 21th National Conference on Environmental Health, Yazd University, February, 2019.
3. **Paper Presentation**, *Intermittent Cycle Extended Aeration System Sludge as a New Feedstock for Biodiesel Production by in-situ transesterification*, 2th International Conference on Environmental Health, Yazd University, November, 2017.
4. **Paper Presentation**, *Biodiesel Production from Nannochloropsis Oculata Microalgae: Effects of the Solvent and Drying Methods on lipid extraction*, 16th National Conference on Environmental Health, Tabriz University, November, 2013.
5. **Paper Presentation**, *Investigating the Chemical Composition of Rosmarinus Officinalis' Essential oils and its Antibacterial Activity on Escherichia Coli: A Kinetic Study*, 16th National Conference on Environmental Health, Tabriz University, November, 2013.

6. **Paper Presentation**, *Evaluation of Culture Medium on the Cell Growth of Nannochloropsis Oculata Microalgae and the Quantity and Quality of Biomass for Biofuel Production*, 16th National Conference on Environmental Health, Tabriz University, November, 2013.
7. **Paper Presentation**, *Investigating the Environmental Health and Safety Status among Primary Schools in Pakdasht County*, 13th National Conference on Environmental Health, Kerman University, November, 2010.

PROFESSIONAL MEMBERSHIPS

- National Environmental Health Association (NEHA).
- Iranian Association of Environmental Health (IAEH).
- The American Society of Civil Engineers.

PROFESSIONAL SERVICES

Peer-Reviewed Articles for:

- 4th International Conference on Environmental Health, Yazd University (reviewer of 4 paper).
- Environment International (reviewer of 1 paper).
- Journal of Environmental Health and Sustainable Development (reviewer of 32 papers).
- Journal of Mazandaran University of Medical Sciences (reviewer of 4 papers).
- Health and Development Journal (reviewer of 10 papers).

Symposium Co-Organizer:

- 2th International Conference on Environmental Health and Sustainable development, Yazd, Iran, November 2017.
- 13th National Conference on Environmental Health, Kerman, Iran, November 2010.
- 9th National Conference on Environmental Health, Isfahan, Iran, November 2006.

LANGUAGES

- **Farsi:** Native Language
- **Turkish:** Intermediate Listener, Intermediate Speaker.
- **English:** Intermediate Listener, Intermediate Speaker, Advanced Reading, and Advanced Writing.

COMPUTER SKILLS

- Expert in working with MATLAB, Design of Experiments (DOE), Origin, Spectragryph, SPSS Statistics, Geographic Information Systems (GIS), EPANET.
- Expert in working with Microsoft Office Word, Excel and PowerPoint.
- Good work experience with Adobe Premier and Adobe Photoshop.