

Tahereh Nematian, Ph.D.

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EDUCATION

- Ph.D. in Applied Chemistry, Department of Sciences, Faculty of Chemistry University of Tehran, Tehran, Iran, 2015-2019.
- M.Sc. in Applied Chemistry, Department of Sciences, Faculty of Chemistry University of Tehran, Tehran, Iran, 2012-2014.
- B.Sc. in Applied Chemistry, Faculty of Chemistry, University of Guilan, Rasht, Iran, 2005-2009.

RESEARCH EXPERIENCES

- Catalytic bio-jet fuel production from microalgae in supercritical fluid, Post-Doctoral Scholar, University of Tehran, Prof. Abasali Khodadadi (2022).
- Biodiesel production via graphene-based nano-biocatalyst from algae biomass, Iranian National Science Foundation (INSF), Dr. Z. Salehi (2021).
- Synthesis of nano-biocatalysts based on graphene nanostructure for biodiesel production from algae biomass, (Ph.D. thesis), University of Tehran, Prof. A. Shakeri (2019).
- A simultaneous production of bio-diesel and hydrogen gas via super-critical conversion of microalgae, Iranian National Science Foundation (INSF), Dr M. Barati (2018).
- Synthesis of higher alcohols over Co-promoted alkali-modified Mo₂C catalysts supported on CNTs, (MSc thesis), University of Tehran, Prof. A. Tavasoli (2014).

TEACHING EXPERIENCES

- Industrial Chemistry, Faculty of Chemistry, University of Kashan, Iran, 2023.
- General Chemistry 1, Faculty of Chemistry, University of Kashan, Iran, 2022-2023.
- Laboratory of General Chemistry, Faculty of Chemistry, University of Kashan, Iran, 2022-2023.
- General chemistry 2, Department of Sciences, Faculty of Biology, University of Tehran, Iran, 2021-2022.
- General chemistry 1, Department of Sciences, Faculty of Biology, University of Tehran, Iran, 2021-2022.

- General chemistry 2, Department of Sciences, Faculty of Geology, University of Tehran, Iran, 2020-2021.
- General chemistry 1, Department of Sciences, Faculty of Geology, University of Tehran, Iran, 2020-2021.
- Basic principles and calculations in chemical engineering (TA), Department of Sciences, Faculty of Chemistry, University of Tehran, Iran, 2018-2019.
- Laboratory of Biotechnology, Department of Engineering, Faculty of Chemical Engineering, University of Tehran, Iran, 2018-2019.
- Industrial Chemistry (TA), Department of Sciences, Faculty of Chemistry, University of Tehran, Iran, 2017-2018.
- Chemical reactors design (TA), Department of Sciences, Faculty of Chemistry, University of Tehran, Iran, 2017-2018.

AWARDS

- Rank 1 in ideas for commercialization, University of Tehran Science and Technology Park, March, 2020.
- Graduated as the 1st ranked Applied Chemistry Ph.D. student, Faculty of Chemistry, University of Tehran, 2019.

RESEARCH INTERESTS

- Nano-biocatalysts for biofuel production.
- Bio jet fuel production from oily biomasses.
- Bio diesel production from microalgae.

PUBLICATIONS

Journal Papers

- **T. Nematian**, A. Shakeri, Z. Salehi, A.A. Saboury, A.K. Dalai, The effect of 3D structure preparation method on lipase/3DMGO biocatalytic parameters and catalytic performance in transesterification of microalgae bio-oil, *Catalysis Today*, (2022).
- **T. Nematian**, M. Fatehi, M. Hosseinpour, M. Barati, One-pot conversion of sesame cake to low N-content biodiesel via nano-catalytic supercritical methanol, *Renewable Energy*, 170 (2021) 964-973.
- F. Esmi, **T. Nematian**, Z. Salehi, A.A. Khodadadi, A.K. Dalai, Amine and aldehyde functionalized mesoporous silica on magnetic nanoparticles for enhanced lipase immobilization, biodiesel production, and facile separation, *Fuel*, 291 (2021) 120126.
- **T. Nematian**, A. Shakeri, Z. Salehi, A.A. Saboury, Lipase immobilized on functionalized superparamagnetic few-layer graphene oxide as an efficient

nanobiocatalyst for biodiesel production from chlorella vulgarise bio-oil, *Biotechnology for Biofuels*, (2020) 13:57.

- **T. Nematian**, Z. Salehi, A. Shakeri, Conversion of bio-oil extracted from *Chlorella vulgaris* micro algae to biodiesel via Modified superparamagnetic nano-biocatalyst, *Renewable Energy*, (2020) 1796-1804.
- M. Jafarkhani, Z. Salehi, **T. Nematian**, Preparation and characterization of chitosan/graphene oxide composite hydrogels for nerve tissue Engineering, *Materials Today: Proceedings*, 5 (7) (2018) 15620-15628.
- R.M. Kiai, **T. Nematian**, A. Tavasoli, A. Karimi, Effect of elemental molar ratio on the synthesis of higher alcohols over Co-promoted alkali-modified Mo₂C catalysts supported on CNTs, *Journal of Energy Chemistry*, 24 (3) (2015) 278-284.
- A. Tavasoli, S. Karimi, M. Davari, N. Nasrollahi, **T. Nematian**, Enhancement of MoO₃-K₂O/CNTs nanocatalyst activity and selectivity in higher alcohols synthesis using microemulsion technique, *Journal of Industrial and Engineering Chemistry*, 20 (2) (2014) 674-681.

Conference Papers

- M.A. Tokmedash, **T. Nematian**, Z. Saleh, Synthesis of magnetic bentonite nanohybrid, 12th International Conference on Engineering, Technology, 2019.
- **T. Nematian**, A. Shakeri, Z. Salehi, Efficiency of magnetic graphene oxide nanoparticles in *Rhizopus oryzae* lipase immobilization for biodiesel production, The 16th Iranian National Congress of Chemical Engineering, 2019.

Books

- [Nano-biocatalytic processes for producing biodiesel from algae](#)
Authors: Tahereh Nematian, Mohammad Barati
Publication date: 2019
Book: Sustainable Bioenergy
Pages: 299-326
Publisher: Elsevier