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EDUCATION

Ph.D. Applied Chemistry, University of Tehran, 2016

M.Sc. Applied Chemistry, University of Tabriz, 2012

B.Sc. Applied Chemistry, University of Tabriz, 2010

RESEARCH INTERESTS

- Gaseous, liquid and solid fuels production from bio resources.
- Polymer nanocomposites for bio applications.

PUBLICATIONS

Journal Papers

- [1] A.R.-V. Zahra Mirzai, Mohammad Barati, Polyvinyl alcohol-sodium alginate blend, composited with 3D-graphene oxide as a controlled release system for curcumin, Journal of Drug Delivery Science and Technology 50 (2019) 380-387.
- [2] M.B. Maryam Aghilinategh, Masood Hamadani, Supercritical methanol for one put biodiesel production from chlorella vulgaris microalgae in the presence of CaO/TiO₂ nano-photocatalyst and subcritical water, Biomass and Bioenergy 123 (2019) 34-40.
- [3] A.A. Alavijeh, M. Dadpey, F. Barati, M. Barati, Diagnosis and treatment of the Cancer Tumor Cells (CTCs); Capturing and Diagnosing Kits, Nanomedicine Research Journal 4(2) (2019) 56-62.

- [4] A.A. Alavijeh, M. Barati, M. Barati, H.A. Dehkordi, The Potential of Magnetic Nanoparticles for Diagnosis and Treatment of Cancer Based on Body Magnetic Field and Organ-on-the-Chip, *Advanced Pharmaceutical Bulletin* 9(3) (2019) 360-373.
- [5] Alavijeh, M. Dadpey, M. Barati, A. Molamirzaie, Silk suture reinforced with Cefixime nanoparticles using polymer hydrogel (CFX@PVA); Preparation, Bacterial resistance and Mechanical properties, *Nanomedicine Research Journal*, Vol. 3, No. 3, pp. 133, 2018 08 22.
- [6] Barati. M, Kahid, B, G, Hydrogen, alcohols, and ethers production from biomass in supercritical methanol-subcritical water medium with Cu-K nanocatalysts, *ENVIRON PROG SUSTAIN*, 2017, ISI, SCOPUS.
- [7] Tavasoli. A, Barati. M, Karimi. A, Sugarcane bagasse supercritical water gasification in presence of potassium promoted copper nano-catalysts supported on γ -Al₂O₃, *INT J HYDROGEN ENERG*, 2015 11 01, ISI, SCOPUS.
- [8] Tavasoli. A, Barati. M, Karimi. A, Conversion of sugarcane bagasse to gaseous and liquid fuels in near-critical water media using K₂O promoted Cu/ γ -Al₂O₃-MgO nanocatalysts, *BIOMASS BIOENERG*, 2015 4 01, ISI, SCOPUS.
- [9] A Olad, M Barati, H Shirmohammadi, Conductivity and anticorrosion performance of polyaniline/zinc composites: Investigation of zinc particle size and distribution effect, *PROG ORG COAT*, 2011 7 01, ISI, SCOPUS.
- [10] A Olad, M Barati, S Behboudi, Preparation of PANI/epoxy/Zn nanocomposite using Zn nanoparticles and epoxy resin as additives and investigation of its corrosion protection behavior on iron, *Progress in Organic Coatings*, 2011.
- [11] Barati. M, Babatabar, M, Hydrogen production via supercritical water gasification of bagasse using unpromoted and zinc promoted Ru/ γ -Al₂O₃ nanocatalysts, *FUEL PROCESS TECHNOL*, 2014 7 01, ISI, SCOPUS.
- [12] Mehrani. R, Barati. M, Tavasoli. A, Karimi. A, Hydrogen production via supercritical water gasification of bagasse using Ni-Cu/ γ -Al₂O₃ nano-catalysts, *ENVIRON TECHNOL*, 2015 5 01, ISI, SCOPUS, PubMed.
- [13] Farid Barati, Ahmad Ali Papahn, Mahsa Afrough, Barati. M, Effects of Tyrode's solution osmolarities and milk on bull sperm storage above zero temperatures, *Iran J Reprod Med*, 2012 2 01, ISI, SCOPUS, ISC, SID, IranMedex, PubMed.

Conference Papers

- 1. M. Fatehi, M. Barati, Catalytic Supercritical Process for Biodiesel Production from Sesame Oil, *International Congress of Sciences and Innovative Technologies*, pp. 95, 2018.
- 2. M Barati, G Kahid, Bagasse nano-catalytic conversion to biofuel in a mixed supercritical/subcritical medium, *19th Iranian Congress of Chemistry*, Shiraz, 2017 2 20.
- M. Aghilinategh, M. Barat, M. Hamadian, Direct Conversion of *Chlorella Vulgaris* Microalgae to Biodiesel Under Supercritical Methanol Condition in The Presence of Heterogeneous Nano- photocatalyst, *22th Iranian Physical Chemistry Conference*, 2019-8.

Books

- **From Biomass to Fuels; Nano-catalytic Processes**
Authors: Mohammad Barati
Publication date: 2017
Book: Nanotechnology for Bioenergy and Biofuel Production
Pages: 195-206
Publisher: Springer International Publishing
- **Nanobiocatalytic processes for producing biodiesel from algae**
- Authors: Tahereh Nematian, Mohammad Barati
- Publication date: 2019
- Book: Sustainable Bioenergy
- Pages: 299-326
- Publisher: Elsevier