

دکتر سمیه اللهیاری
دانشیار
دانشکده: مهندسی شیمی



سوابق تحصیلی

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کارشناسی	۱۳۸۴	مهندسی شیمی	دانشگاه صنعتی شریف
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اطلاعات استخدامی

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دانشگاه صنعتی سهند		رسمی قطعی	تمام وقت	

سوابق اجرایی

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موضوعات تدریس تخصصی

ترمودینامیک

ترمودینامیک پیشرفته (کارشناسی ارشد)

پدیده های سطحی (کارشناسی ارشد)

فرایندهای پالایش

محاسبات مهندسی پالایش

شیمی آلی

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عضویت در انجمن های علمی

انجمن مهندسی شیمی ایران

مقالات در نشریات

1. Farnaz Asadi , Somaiyeh Allahyari , Nader Rahemi , Murid Hussain, One-pot oxidative-adsorptive desulfurization of model fuel and fuel oil using magnetic boron nitride-based catalysts under ultrasonic irradiations, Journal of Industrial and Engineering Chemistry, 12.10.2023

2. Nesa Rahmazadeh , Somaiyeh Allahyari , Milad Hermani , Habib Etemadi, C₃N₄-BiOBr/PVC photocatalytic submerged membrane for oil-in-water emulsion separation with visible light-driven self-cleaning performance, Journal of Environmental Chemical Engineering, 2.1.2024

3. Somaiyeh Allahyari, Construction of a magnetic BiOBr-rGO-ZnFe₂O₄ heterojunction photocatalyst for refinery wastewater treatment under simulated solar light. Solar Energy, 11.1.2023

4. Fahime Abedini , Somaiyeh Allahyari , Nader Rahemi, Oxidative desulfurization of dibenzothiophene and simultaneous adsorption of products on BiOBr-C₃N₄/MCM-41 visible-light-driven core-shell nano photocatalyst, Applied Surface Science, 12.15.2021

5. Asma Ranjbar Kooch Farhadi , Nader Rahemi , Somaiyeh Allahyari , Minoos Tasbihi, Metal-doped perovskite BiFeO₃/rGO nanocomposites towards the degradation of acetaminophen in aqueous phase using plasmaphotocatalytic hybrid technology, Journal of the Taiwan Institute of Chemical Engineers, 3.1.2021

6. Fahime Abedini , Somaiyeh Allahyari , Nader Rahemi, One-step oxidative-adsorptive desulfurization of DBT on simulated solar light-driven nano photocatalyst of MoS₂-C₃N₄-BiOBr @MCM-41. Advanced Powder Technology, 6.1.2022

7. Leila Feyzi , Nader Rahemi , Somaiyeh Allahyari, Tetracycline degradation using combined

- system of dielectric barrier discharge air plasma and zeolites synthesized at different $\text{Na}_2\text{O}/\text{SiO}_2$ ratios. *Journal of Industrial and Engineering Chemistry*, 12, 25, 2021
- Leila Feyzi , Nader Rahemi , Somaiyeh Allahyari, Efficient degradation of tetracycline in aqueous solution using a coupled S-scheme $\text{ZnO}/\text{g-C}_3\text{N}_4/\text{zeolite P}$ supported catalyst with water falling film plasma reactor, *Process Safety and Environmental Protection*, 5, 1, 2022
- Shayan Hoseini , Nader Rahemi , Somaiyeh Allahyari , Minoo Tasbihi, Application of plasma technology in the removal of volatile organic compounds (BTX) using manganese oxide nano-catalysts synthesized from spent batteries, *Journal of Cleaner Production*, 9, 20, 2019
- Marziyeh Saflou , Somaiyeh Allahyari , Nader Rahemi , Minoo Tasbihi, Oil spill degradation using floating magnetic simulated solar light-driven nano photocatalysts of $\text{Fe}_3\text{O}_4\text{-ZnO}$ supported on lightweight minerals, *Journal of Environmental Chemical Engineering*, 8, 1, 2020
- Alireza Maddahzadeh Zoghi , & Somaiyeh Allahyari, Multifunctional magnetic $\text{C}_3\text{N}_4\text{-rGO}$ adsorbent with high hydrophobicity and simulated solar light-driven photocatalytic activity for oil spill removal, *Solar Energy*, 5, 1, 2022
- Synthesis of $\text{La}_{0.8}\text{Zn}_{0.2}\text{MnO}_3$ nanocatalysts for decomposition of VOCs in a DBD plasma reactor; Influence of sol-gel parameters, *Journal of the Taiwan Institute of Chemical Engineers*, 5, 1, 2021
- Natural Minerals as Support of Silicotungstic Acid for Photocatalytic Degradation of Methylene Blue in Wastewater, *Journal of Inorganic and Organometallic Polymers and Materials*, 11, 10, 2018
- Photocatalytic oxidative-extractive desulfurization of dibenzothiophene under simulated solar light with $\text{MoS}_2\text{-CeO}_2/\text{Al}_2\text{O}_3\text{-SiO}_2$ nano photocatalyst: effect of CeO_2 content, *Journal of Sulfur Chemistry*, 1, 3, 2024
- Fatemeh Jangi , Nader Rahemi , Somaiyeh Allahyari, Oxidative desulfurization using nanocomposites of heterogeneous phosphotungstic acid over natural zeolites; optimization by central-composite design, *Petroleum Science and Technology*, 4, 23, 2022
- Modified natural zeolites and clays as support of Ni–Mn catalyst for toluene oxidation in a one-stage plasma-catalysis system, *International Journal of Environmental Science and Technology*, 5, 24, 2022
- Kosar Sheikhlou et al., Walnut leaf extract-based green synthesis of selenium nanoparticles via microwave irradiation and their characteristics assessment, *Open Agriculture*, 6, 9, 2020
- Somaiyeh Allahyari , Mohammad Haghighi , Amanollah Ebadi , Shahin Hosseinzadeh, Effect of irradiation power and time on ultrasound assisted co-precipitation of nanostructured $\text{CuO-ZnO-Al}_2\text{O}_3$ over HZSM-5 used for direct conversion of syngas to DME as a green fuel, *Energy Conversion and Management*, 8, 1, 2014
- CO_2 reforming of methane over $\text{Ni-Cu}/\text{Al}_2\text{O}_3\text{-ZrO}_2$ nanocatalyst : The influence of plasma treatment and process conditions on catalytic properties and performance, *Korean Journal of Chemical Engineering*, 7, 19, 2014
- Amirmasoud Goudarz , Nader Rahemi , Somaiyeh Allahyari, Plasma treatment of nano BiOBr-BiOI heterojunction for efficient photocatalytic performance under visible light, *Journal of Photochemistry & Photobiology, A: Chemistry*, 6, 1, 2024
- Hamid Kazemi Hakki , & Somaiyeh Allahyari, Sonophotocatalytic treatment of wastewater using simulated solar light-driven $\text{Bi}_2\text{O}_3\text{-ZnO}$ nanophotocatalyst sensitized with copper phthalocyanine, *Materials Chemistry and Physics*, 6, 1, 2022
- Leila Yosefi , Mohammad Haghighi , Somaiyeh Allahyari , Solvothermal synthesis of flowerlike $\text{p-BiOI/n-ZnFe}_2\text{O}_4$ with enhanced visible light driven nanophotocatalyst used in removal of acid orange 7 from wastewater, *Separation and Purification Technology*, 5, 7, 2017
- Syngas production from reforming of greenhouse gases CH_4/CO_2 over $\text{Ni-Cu}/\text{Al}_2\text{O}_3$ nanocatalyst: Impregnated vs. plasma-treated catalyst, *Energy Conversion and Management*, 5, 4, 2014

- Hamid Kazemi Hakki , & Somaiyeh Allahyari, Intensification of photocatalytic wastewater .24
treatment using a novel continuous microcapillary photoreactor irradiated by visible LED
.lights, Chemical Engineering and Processing - Process Intensification, 5.1.2022
- Hamid Kazemi Hakki , Somaiyeh Allahyari , Nader Rahemi , Minoo Tasbihi, Surface properties, .25
adherence, and photocatalytic activity of solegel dip-coated TiO₂/ZnO films on glass
.plates, Comptes Rendus Chimie, 5.1.2019
- Leila Yosefi , Mohammad Haghghi , Somaiyeh Allahyari , Saeid Ashkriz, Effect of ultrasound .26
irradiation and Ni-loading on properties and performance of CeO₂-doped Ni/clinoptilolite
nanocatalyst used in polluted air treatment, Process Safety and Environmental
.Protection, 5.1.2015
- Leila Yosefi , Mohammad Haghghi , Somaiyeh Allahyari , Saeid Ashkriz, The beneficial use of .27
HCl-activated natural zeolite in ultrasound assisted synthesis of Cu/clinoptilolite–CeO₂
nanocatalyst used for catalytic oxidation of diluted toluene in air at low temperature, Journal of
.Chemical Technology and Biotechnology, 4.3.2014
- Nooshin Parvizi , Nader Rahemi , Somaiyeh Allahyari , Minoo Tasbihi, Plasma-catalytic .28
degradation of BTX over ternary perovskite-type La_{1-x}(Co, Zn, Mg, Ba)_xMnO₃
.nanocatalysts, Journal of Industrial and Engineering Chemistry, 4.25.2020
- Amin Mohammad Gholipour , Nader Rahemi , Somaiyeh Allahyari , Eslam .29
Ghareshabani, Hybrid Plasma-Catalytic Oxidation of VOCs with NiMn/ Montmorillonite: Plasma
.and Catalyst Considerations, Topics in Catalysis, 4.10.2017
- Nader Rahemi et al., Plasma-Assisted Dispersion of Bimetallic Ni–Co over Al₂O₃– ZrO₂ for .30
CO₂ Reforming of Methane: Influence of Voltage on Catalytic Properties, Topics in
.Catalysis, 4.10.2017
- Maryam Moradi , Mohammad Haghghi , Somaiyeh Allahyari, Precipitation dispersion of .31
Ag–ZnO nanocatalyst over functionalized multiwall carbon nanotube used in degradation of Acid
.Orange from wastewater, Process Safety and Environmental Protection, 4.1.2017
- Simin Matloubi Aghdam , Mohammad Haghghi , Somaiyeh Allahyari , Leila .32
Yosefi, Precipitation dispersion of various ratios of BiOI/BiOCl nanocomposite over g-C₃N₄ for
promoted visible light nanophotocatalyst used in removal of acid orange 7 from water, Journal of
.Photochemistry and Photobiology A: Chemistry, 4.1.2017
- How Advancing are Mesoporous Silica Nanoparticles? A Comprehensive Review of the .33
.Literature, International Journal of Nanomedicine, 3.22.2022
- Ahmad Najafidoust , Somaiyeh Allahyari , Nader Rahemi , Minoo Tasbihi, Uniform coating of .34
TiO₂ nanoparticles using biotemplates for photocatalytic wastewater treatment, Ceramics
.International, 3.1.2020
- Abatement of toluene from polluted air over Mn/Clinoptilolite–CeO₂ nanopowder: .35
Impregnation vs. ultrasound assisted synthesis with various Mn-loading, Advanced Powder
.Technology, 3.1.2015
- Somaiyeh Allahyari , Mohammad Haghghi , Amanollah Ebadi , Shahin .36
Hosseinzadeh, Ultrasound assisted co-precipitation of nanostructured CuO–ZnO–Al₂O₃ over
HZSM-5: Effect of precursor and irradiation power on nanocatalyst properties and catalytic
.performance for direct syngas to DME, Ultrasonics Sonochemistry, 3.1.2014
- Somaiyeh Allahyari , Mohammad Haghghi , Amanollah Ebadi, Direct synthesis of DME over .37
nanostructured CuO–ZnO–Al₂O₃/HZSM-5 catalyst washcoated on high pressure microreactor:
Effect of catalyst loading and process condition on reactor performance, Chemical Engineering
.Journal, 2.15.2015
- Somaiyeh Allahyari , Mohammad Haghghi , Amanollah Ebadi , Habib Qavam Saeedi, Direct .38
synthesis of dimethyl ether as a green fuel from syngas over nanostructured
CuO–ZnO–Al₂O₃/HZSM-5 catalyst: Influence of irradiation time on nanocatalyst properties and
.catalytic performance, Journal of Power Sources, 12.25.2014

- Somaiyeh Allahyari , Mohammad Haghghi , Amanollah Ebadi,Direct conversion of syngas to .39
DME as a green fuel in a high pressure microreactor: Influence of slurry solid content on
characteristics and reactivity of washcoated CuO–ZnO–Al₂O₃/HZSM-5 nanocatalyst,Chemical
.Engineering and Processing: Process Intensification,12.1.2014
- Sakineh Mohammadzadeh Yengejeh , Somaiyeh Allahyari , Nader Rahemia,Efficient , .40
oxidative desulfurization of model fuel by visible-light-driven MoS₂-CeO₂/SiO₂-Al₂O₃ nano
.photocatalyst coating,Process Safety and Environmental Protection,11.1.2020
- Mohsen Parvas , Mohammad Haghghi , Somaiyeh Allahyari,Catalytic wet air oxidation of .41
phenol over ultrasound-assisted synthesized Ni/CeO₂–ZrO₂ nanocatalyst used in wastewater
.treatment,Arabian Journal of Chemistry,11.1.2019
- Nushin Etekali , Somaiyeh Allahyari , Nader Rahemi , Fahime Abedini,One-pot oxidative- .42
adsorptive desulfurization of model and real fuel using micro-mesoporous SiO₂ aerogel
.supported MoO₃,Microporous and Mesoporous Materials,10.1.2021
- Effect of hydrometallurgical process parameters on the Mn₂O₃ nano catalysts derived from .43
spent batteries used in the plasma catalytic oxidation of BTX,Advanced Powder
.Technology,10.1.2020
- Hamid Kazemi Hakki , Somaiyeh Allahyari , Nader Rahemi , Minoo Tasbihi,The role of thermal .44
annealing in controlling morphology, crystal structure and adherence of dip coated TiO₂ film on
.glass and its photocatalytic activity,Materials Science in Semiconductor Processing,10.1.2018
- ZnO–C₃N₄ solar light -driven nanophotocatalysts on floating recycled PET bottle as support .45
.for degradation of oil spill,Ceramics International,1.17.2020
- Elnaz Safari , Nader Rahemi , Davood Kahforoushan , Somaiyeh Allahyari,Copper adsorptive .46
removal from aqueous solution by orange peel residue carbon nanoparticles synthesized by
combustion method using response surface methodology,Journal of Environmental Chemical
.Engineering,1.1.2019
- Mina Azami , Mohammad Haghghi , Somaiyeh Allahyari,Sono-precipitation of Ag₂CrO₄-C .47
composite enhanced by carbon-based materials (AC, GO, CNT and C₃N₄) and its activity in
.photocatalytic degradation of acid orange 7 in water,Ultrasonics - Sonochemistry,1.1.2018