



## behrouz bayati

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## Biography

Behrouz was born in Iran, in 1979. He has finished his BSc in Chemical engineering at Azad University of Arak, Iran, with good marks in 2003. He received his M.Sc. and Ph.D both in chemical engineering from Sahand University of Technology in 2007 and 2013 respectively.

## Education

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## Publications

### 1-Silica Membranes: Preparation, Modelling, Application, and Commercialization

#### Book

b.bayati,  
& || ISBN:10.1016/B978-0-444-63866-3.00015-7  
Publication year:

### 2-Current Trends and Future Developments on (Bio-) Membranes Microporous Membranes and Membrane Reactors

#### Book

Asma Ghorbani,b.bayati,  
& || ISBN:ISBN: 978-0-12-816350-4  
Publication year:

### 3-The study of the spontaneous oil imbibition in the presence of new polymer coated nanocomposites compatible with reservoir conditions

#### Journal paper

Y.Ahmadi,Milad Malekpour,T.Kikhavani,b.bayati,

Petroleum Science and Technology & November 16 2022  
DOI: 10.1080/10916466.2022.2143802 ;  
Publication year:2022 ;

#### 4-Synthesis of polythiophene/zeolite/iron nanocomposite for adsorptive remediation of azo dye: Optimized by Taguchi method

##### Journal paper

Ali Haghgir, S.Hosseini, m.tanzifi, Mohammad Tavakkoli Yaraki, b.bayati, Tahoura Saemian, Maedeh Koohi,  
Chemical Engineering Research and Design & June 01 2022  
DOI: <https://doi.org/10.1016/j.cherd.2022.05.042> ;  
Publication year:2022 ;

#### 5-Applying intelligent approaches to estimate the removal efficiency of heat stable salts from lean amine via electrodialysis

##### Journal paper

M.A. Moradkhani, T.Kikhavani, S.Hosseini, Bart Vander Bruggen, b.bayati,  
International Journal of Greenhouse Gas Control & December 08 2021  
DOI: 10.1016/j.ijggc.2021.103548 ;  
Publication year:2021 ;

#### 6-Preparation of Nickel Oxide Supported Zeolite Catalyst (NiO/Na-ZSm-5) for Asphaltene Adsorption: A Kinetic and Thermodynamic Study

##### Journal paper

M.Mansouri, Mehdi parhiz, b.bayati, Y.Ahmadi,  
& June 01 2021  
DOI: 10.22050/IJOGST.2021.257740.1571 ;  
Publication year:2021 ;

#### 7-Modeling of Nanofiltration Process Using DSPM-DE Model for Purification of Amine Solution

##### Journal paper

asma ghorbani, b.bayati, enrico drioli, Francesca Macedonio, T.Kikhavani, Mirko Frappa,  
Membranes & March 24 2021  
DOI: ;  
Publication year:2021 ;

#### 8-Adsorption of diclofenac on mesoporous activated carbons: Physical and chemical activation, modeling with genetic programming and molecular dynamic simulation

##### Journal paper

simulation Seyyed Abbas Mirzaee, b.bayati, M.Valizadeh, Helder T. Gomes, zahra,  
Chemical Engineering Research and Design & March 01 2021  
DOI: <https://doi.org/10.1016/j.cherd.2020.12.025> ;  
Publication year:2021 ;

#### 9-Removal of Heat-Stable Salts from Lean Amine of a Gas Refinery via Electrodialysis

##### Journal paper

T.Kikhavani, Hamid Mehdizadeh, Bart Vnder Bruggen, b.bayati,  
Chemical Engineering and Technology & December 29 2020  
DOI: ;  
Publication year:2020 ;

#### 10-Application of NF Polymeric Membranes for Removal of Multicomponent Heat-Stable Salts (HSS) Ions from Methyl Diethanolamine (MDEA) Solutions

##### Journal paper

Asma Ghorbani, b.bayati, Teresa Poerio, Pietro Argurio, T.Kikhavani, Marzieh namdari, Licnio M. Ferreira,  
& October 23 2020  
DOI: <https://doi.org/10.3390/molecules25214911> ;  
Publication year:2020 ;

#### 11-Experimental and Theoretical Investigation of Gelation Time of Nanostructured Polymer Gels by Central

## Composite Approach

### Journal paper

Mohsen Seid Mohammadi, Eghbal Sahraei, b.bayati,  
&amp; | May 19 2020  
DOI: <https://dx.doi.org/10.22050/ijogst.2020.208529.1525> ;  
Publication year: 2020 ;

## 12-Preparation of Pt-ZSM-5 zeolite membrane catalysts for isomerization of linear alkane

### Journal paper

b.bayati, catia Algieri, Ali akbar babaluo, Mohammad Haghghi, Asma Ghorbani, Enrico Drioni,  
&amp; | April 07 2020  
DOI: ;  
Publication year: 2020 ;

## 13-Chemical study of asphaltene inhibitors effects on asphaltene precipitation of an Iranian oil field

### Journal paper

Afshar Ahmadbeigi, b.bayati, M.Mansouri, Masoud Riazi, Hossein Rezaei,  
Oil & Gas Science and Technology - Revue d'IFP Energies nouvelles &amp; | February 18 2020  
DOI: <https://doi.org/10.2516/ogst/2019063> ;  
Publication year: 2020 ;

## 14-Synthesis optimization and characterization of high molecular weight polymeric nanoparticles as EOR agent for harsh condition reservoirs

### Journal paper

Mohsen Seid Mohammadi, Eghbal Sahraei, b.bayati,  
Journal of Polymer Research &amp; | February 12 2020  
DOI: <https://doi.org/10.1007/s10965-020-2017-9> ;  
Publication year: 2020 ;

## 15-Optimization and genetic programming modeling of humic acid adsorption onto prepared activated carbon and modified by multi-wall carbon nanotubes

### Journal paper

Zahra Noorimotlagh, Maryam Ravanbakhsh, M.Valizadeh, b.bayati, George Z.Kyzas, Mehdi Ahmadi, Nadereh Rahbar, Neemat Jaafarzadeh,  
Polyhedron &amp; | January 08 2020  
DOI: <https://doi.org/10.1016/j.poly.2020.114354> ;  
Publication year: 2020 ;

## 16-Ions transport modeling in the amine solution through nanofiltration membrane

### Journal paper

asma ghorbani, b.bayati, T.Kikhavani,  
Brazilian Journal of Chemical Engineering &amp; | December 16 2019  
DOI: <https://doi.org/10.1590/0104-6632.20190364s20190068> ;  
Publication year: 2019 ;

## 17-Study on the separation of H<sub>2</sub> from CO<sub>2</sub> using a ZIF-8 membrane by molecular simulation and maxwell-stefan model

### Journal paper

b.bayati, Asma ghorbani, Kamran Ghasemzadeh, Adolfo Iulianelli, Angelo Basile,  
&amp; | November 29 2019  
DOI: <https://doi.org/10.3390/molecules24234350> ;  
Publication year: 2019 ;

## 18-The Selection of amine solvent in process of gas treating considering physical and process criteria using multiple criteria decision-making techniques (Case Study: Ilam Gas Treating Company)

### Journal paper

m.seidi, Mohsen khezeli, b.bayati, esmaeil najafi,  
&amp; | November 04 2019  
DOI: ;  
Publication year: 2019 ;

## 19-Study of adsorption and diffusion of methyl mercaptan and methane on FAU zeolite using molecular simulation

### Journal paper

mohammad khalkhali, Asma Ghorbani, b.bayati,  
Polyhedron & | October 01 2019  
DOI: <https://doi.org/10.1016/j.poly.2019.07.038> ;  
Publication year: 2019 ;

## 20-Photo-catalytic dye degradation of methyl orange using Zirconia-zeolite nanoparticles

### Journal paper

M.Mansouri, Neda Mozafari, b.bayati, Naimeh setareshenas,  
Bulletin of Materials Science & | August 02 2019  
DOI: ;  
Publication year: 2019 ;

## 21-Molecular simulation of the ion exchange behavior of Cu<sup>2+</sup>, Cd<sup>2+</sup> and Pb<sup>2+</sup> ions on different zeolites exchanged with sodium

### Journal paper

Hossein Khanmohammadi, b.bayati, javad rahbar shahrouzi, Ali Akbar Babaluo, Asma Ghorbani,  
Journal of Environmental Chemical Engineering & | April 20 2019  
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Publication year: 2019 ;

## 22-Molecular dynamics simulations of asphaltene aggregation under different conditions

### Journal paper

Amin Tirjoo, b.bayati, Hossein Rezaei, mahmoud rahmati,  
Journal of Petroleum Science and Engineering & | March 03 2019  
DOI: ;  
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## 23-Catalytic performance of nanostructured Pt/ZSM-5 catalysts synthesized by extended Charnell's method in hydroisomerization of n-pentane

### Journal paper

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## 24-Molecular dynamics simulation of the effect of ions in water on the asphaltene aggregation

### Journal paper

Amin Tirjoo, b.bayati, hossein rezaei, mahmoud rahmati,  
Journal of Molecular Liquids & | December 18 2018  
DOI: [10.1016/j.molliq.2018.12.067](https://doi.org/10.1016/j.molliq.2018.12.067) ;  
Publication year: 2018 ;

## 25-Synthesis and application of Cu-x zeolite for removal of antibiotic from aqueous solution: process optimization using response surface methodology

### Journal paper

Asma Rahimi, b.bayati, mehrda khamforoush,  
Arabian Journal for Science and Engineering & | December 08 2018  
DOI: <https://doi.org/10.1007/s13369-018-3644-x> ;  
Publication year: 2018 ;

## 26-Removal of HSS from Industrial Amine Solution by Anionic Resin (Case Study: Ilam Gas Refinery)

### Journal paper

b.bayati, Milad Mirshekari, Alireza Veisy, ferriera,  
Chemical Papers & | September 24 2018  
DOI: <https://doi.org/10.1007/s11696-018-0598-0> ;  
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## 27-Isomerization of C5 isomers in the BZSM-5 membrane reactor packed with Pt/SZ nanocatalyst

### Journal paper

mahboobeh Ejtemaei, nazanin charchi, ali akbar Babaluo, akram tavakoli, b. bayati,  
Chemical Engineering and Processing: Process Intensification & June 15 2018  
DOI: <https://doi.org/10.1016/j.cep.2018.06.008> ;  
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## 28-A Molecular Simulation of Natural Gas Dehydration by 3A Zeolite Nanostructure

### Journal paper

b. bayati, mahmood Rahmati,  
& August 02 2017  
DOI: <http://10.22050/IJOGST.2018.57856> ;  
Publication year: 2017 ;

## 29-Enhanced i-C5 production by isomerization of C5 isomers in BZSM-5 membrane reactor packed with Pt/ZSM-5 nanocatalyst

### Journal paper

nazanin charchi, mahboobeh ejtemaei, ali akbar Babaluo, Akram Tavakoli, b. bayati, yaser bayati,  
Chemical Engineering Journal & December 01 2016  
DOI: <https://doi.org/10.1016/j.cej.2016.06.129> ;  
Publication year: 2016 ;

## 30-Hydroisomerization of n-Pentane over Pt/Mordenite Catalyst: Effect of Feed Composition and Process Conditions

### Journal paper

b. bayati,  
Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture & May 04 2016  
DOI: <10.22050/IJOGST.2016.15800> ;  
Publication year: 2016 ;

## 31-Experimental and modeling study of dye removal by photocatalysis with chitin-stabilized TiO<sub>2</sub>/ZnO nanocomposite

### Journal paper

sajad shafieezadeh, b. bayati, Silvia martinez, M. Mansouri, Abbas aghaei nejad,  
& |  
DOI: <https://doi.org/10.1007/s13762-021-03638-y> ;  
Publication year: ;

## 32-Robust Intelligent Approaches to Predict the CO<sub>2</sub> Frosting Temperature in Natural Gas Mixtures Under Cryogenic Conditions

### Journal paper

ehsan alipanahi, mohammad amin moradkhani, Arman zolfaghari, b. bayati,  
International Journal of Refrigeration & |  
DOI: <10.1016/j.ijrefrig.2022.11.018> ;  
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## 33-Study on Effect of inhibitor on wax precipitation in Iranian oil fields by using differential scanning calorimetry and microscopy

### Journal paper

hossein hejazi, b. bayati, M. Mansouri,  
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DOI: <http://dx.doi.org/10.22050/ijogst.2021.275683.1585> ;  
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## 34-Gelation studies of high molecular weight polymeric nanoparticles for application in fractured oil reservoirs with harsh conditions

### Journal paper

mohsen Seid Mohammadi, Eghbal sahraei, b. bayati,  
Energy Sources, Part A: Recovery, Utilization and Environmental Effects & |  
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**Journal paper**

Seyyed Abbas Mirzaee,Zahra Noorimotlagh,Neemat Jaafarzadeh,Fatemeh Sahraeei,b.bayati,M.Valizadeh,Morvarid Karamkhani,  
& November 21 2021

DOI: ;

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36- مطالعه سینتیکی و ترمودینامیکی جذب آسفالتین بر روی نانوذرات زئولیت-ZSM-5

**Journal paper**

M.Mansouri,Hossein Razmeh,b.bayati,Naimeh Setaresheenas ,  
Journal of applied chemistry& November 20 2020

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37- روی جداسازی ایزومرهای پنتان MFI شبیه سازی مونت کارلو اثر نسبت سیلیسیم به آلومینیم موجود در ساختار زئولیت -37

**Journal paper**

b.bayati,  
& February 07 2017

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38- بررسی تاثیر سورفکتانت آنیونی سدیم دودسیل سولفات بر کشش بین سطحی دودکان و آب بصورت آزمایشگاهی و شبیه سازی-مولکولی

**Journal paper**

kolsoum Malekshahifar,ehsan alipanahi,b.bayati,  
Nashrieh Shimi va Mohandesi Shimi Iran & |

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Publication year: ;

39-molecular dynamic simulation of asphaltene precipitation in three solvents of toluene, isopropyl benzene and heptane

**Conference paper**

Amin Tirjoo,b.bayati,Mahmood Rahmati,  
,, & January 01 1970

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40-Effect of Inhibitor on Precipitation Asphaltene for Crude Oil of Azar Oils Field

**Conference paper**

Afshar Ahmadbaygi,b.bayati,M.Mansouri,  
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Publication year:1970 ;

41-MERCAPTAN REMOVAL FROM CONDENSATE USING ZEOLITE ADSORBENTS

**Conference paper**

b.bayati,  
,, & January 01 1970

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42-Study on transport parameters in nanofiltration membrane for ion removal

**Conference paper**

Asma Ghorbani,b.bayati,T.Kikhavani,  
,, & January 01 1970

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#### 43-Investigation the Effect of Concentration on Limiting Current Density in Electrodialysis process

##### Conference paper

T.Kikhavani,Hamid Mehdizadeh,b.bayati,  
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#### 44-Removal of Asphaltene deposits in petroleum by zeolite nanoparticles

##### Conference paper

M.Mansouri,Hossein Razmeh,b.bayati,Naimeh Setaresheenas,  
2nd National Congress of Chemistry and Nanochemistry from Research to Technology,Iran,Iran University of Science and Technology& JJanuary  
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#### 45-Molecular Simulation of Co2 adsorption on FAU-DDR-MFI-LTA zeolite

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#### 46-molecular simulation of water adsorption on LTA,MFI,DDR and FAU zeolite

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## 52-Photocatalytic study of modified zirconium dioxide modified nanoparticles with zeolite

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