IN THE NAME OF GOD

ACADEMIC CURRICULUM VITAE

Mona Kharazi



CONTACT INFORMATION:

Ph.D. Student of Applied Chemistry, Department of Apply Chemistry, Faculty of Chemistry, Bu-Ali Sina University, Hamadan, Iran.

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PERSONAL INFORMATION:

Date of Birth: 1989 (1368)

Citizenship: Iran

EDUCATION:

✓ 2015-2021 Ph.D.: Chemistry

Field: Applied Chemistry

Title: A Study on the Effect of Gemini Surface Active Nano Ionic Liquids on the Interfacial Tension of Crude Oil and Salty Water at Different Temperatures

Department of Apply Chemistry, Faculty of Chemistry, Bu-Ali Sina University, Hamadan, Iran.

✓ 2012-2015 M.Sc.: Chemistry

Field: Applied Chemistry

Title: A Study on Interfacial Tension of N-butyl Acetate - Water System in The Presence of Ionic Liquids

Department of Apply Chemistry, Faculty of Chemistry, Bu-Ali Sina University, Hamadan, Iran.

✓ 2008-2012 B.Sc.: Chemistry

Field: Applied Chemistry

Department of Apply Chemistry, Faculty of Chemistry, Bu-Ali Sina University, Hamadan, Iran.

Honors & Awards:

- ✓ Achieved the distinguished Student in 4nd international scientific Olympiad (chemistry) competitions, 2011.
- ✓ Achieved the 20nd rank in Chemistry Nationwide Competitive Ph.D. Entrance Exam 2015 in fields of Applied Chemistry.
- ✓ Membership of the Talent of Bu-Ali Sina University (2015-2018 among Ph.D.)
- ✓ Membership of the Talent of Bu-Ali Sina University (2012-2015 among M.Sc.).
- ✓ Membership of the Talent of Bu-Ali Sina University (2008-2012 among B.Sc.).
- ✓ Outstanding researcher at Bu-Ali Sina University, 2015.
- ✓ Distinguished Student among M.Sc. chemistry students, Bu-Ali Sina University, Hamedan, Iran
- ✓ Distinguished Student among B.Sc. chemistry students, Bu-Ali Sina University, Hamedan, Iran.

TEACHING:

Name of the course:

General Chemistry at Bu-Ali Sina University (2017-2018)

Professional Memberships:

✓ Membership of the Iranian Chemical Society.

RESEARCH AREAS OF INTEREST:

- ✓ Interfacial tension between crude oil-water
- ✓ Interfacial tension between liquid-liquid phases
- ✓ Ionic liquid as green solvent applications in interfacial tension
- ✓ Gemini ionic liquid as new surfactant
- ✓ Nanometer ionic liquid as new kind of ionic liquids

Publications:

JOURNAL PAPERS:

1. Promoting activity of gemini ionic liquids surfactant at the interface of crude oil-water

M. Kharazi, J. Saien, M. Yarie, M.A. Zolfigol, Pet. Res. 2021, 00, 00-00.

2. The superior effects of a long chain gemini ionic liquid on the interfacial tension, emulsification and oil displacement of crude oil-water

M. Kharazi, J. Saien, M. Yarie, M.A. Zolfigol, J. Pet. Sci. Eng. 2020, 195, 00-00.

3. Different spacer homologs of gemini imidazolium ionic liquid surfactants at the interface of crude oil-water

M. Kharazi, J. Saien, M. Yarie, M.A. Zolfigol, J. Mol. Liquid. 2019, 296, 189-196.

4. Systematic Investigation of a Surfactant Type Nano Gemini Ionic Liquid and Simultaneous Abnormal Salts Effects on the Crude Oil/Water Interfacial Tension

J. Saien, M. Kharazi, M. Yarie, M.A. Zolfigol, Ind. Eng. Chem. Res. **2019**, 58, 3583-3594.

5. A Comparative Study on the Interface Behavior of Different Counter Anion Long Chain Imidazolium Ionic Liquids

J. Saien, M. Kharazi, J. Mol. Liquid. 2016, 220, 136-141.

6. Adsorption Behavior of Long Alkyl Chain Imidazolium Ionic Liquids at the n-Butyl Acetate + Water Interface

J. Saien, M. Kharazi, S. Asadabadi, J. Mol. Liquid. 2015, 212, 58-62.

7. Adsorption Behavior of Short Alkyl Chain Imidazolium Ionic Liquidsat n-Butyl Acetate + Water Interface: Experiments and Modeling

J. Saien, M. Kharazi, S. Asadabadi, Iranian J. Chem. Eng. 2015, 59-74.

PAPER PRESENTED AT CONGRESSES (AS LECTURE OR PRESENTATION):

7th National Congress on Chemistry and Chemical Engineering of Iran emphasizing Iranian native technologies, Tehran, Iran, 21-22 September, 2020.

- 1. Wettability Alteration and Oil Displacement in the Presence of Imidazolium Gemini Ionic Liquid; The 7th National Congress on Chemistry and Chemical Engineering of Iran emphasizing Iranian native technologies, 2020.
- 2. pH and Temperature Effects on the Enhanced Oil Recovery with Gemini Ionic Liquids; The 7th National Congress on Chemistry and Chemical Engineering of Iran emphasizing Iranian native technologies, 2020.

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The 11th International Chemical Engineering Congress & Exhibition (IChEC 2020), Fouman, Iran, 15-17 April, 2020.

- 3. Influence of Different Salts on the Enhanced Oil Recovery with Different Spacer Length Gemini Ionic Liquids for Interfacial Tension Reduction; The 11th International Chemical Engineering Congress & Exhibition (IChEC), 2020.
- 4. Dynamic and Equilibrium Interfacial Tension Behavior of Crude Oil-Water in the Presence of [C4im-C8-imC4][Br2] Imidazolium Gemini Ionic Liquid; The 11th International Chemical Engineering Congress & Exhibition (IChEC), 2020.

The 4th Iranian Applied Chemistry Conference, Urmia University, Urmia, Iran, 23-25 July, 2019.

- 5. Investigation on Spacer Length Effect of Gemini Ionic Liquids on the Crude Oil/Water Interfacial Tension for Enhanced Oil Recovery; The 4th Iranian Applied Chemistry Seminar, 2019.
- 6. The Alkyl Chain Length Effect of the Gemini Ionic Liquids Type Surfactant on the Crude Oil/Water Interfacial Tension at Different Temperatures and pHs; The 4th Iranian Applied Chemistry Seminar, 2019.

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The 3th Iranian Applied Chemistry Seminar, Bu-Ali Sina University, Hamedan, Iran, 28-29 August, 2018.

- 7. The Effect of Nano Gemini Ionic Liquid Type Surfactant on Interfacial Tension for Enhanced Oil Recovery; The 3th Iranian Applied Chemistry Seminar, 2018.
- 8. Effect of Salts on the Function of a Gemini Ionic Liquid in Interfacial Tension Reduction of Crude Oil/Water; The 3th Iranian Applied Chemistry Seminar, 2018.

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The 15th Iranian National Congress of Chemical Engineering (ICHEC), Tehran University, Tehran-Iran, 17-19 February, 2015.

- 9. A Comparative Study on the Interface Behaviour of Short-Chain and Long-Chain Ionic Liquids; The 15th Iranian National Congress of Chemical Engineering (IChEC), 2015.
- **10.** Influence of [C16mim][X] with X = (Cl, Br and I) on the Interfacial Tension; *The 15th Iranian National Congress of Chemical Engineering (IChEC)*, 2015.
- 11. Counter Anion and Temperature Effects on the Interfacial Adsorption of Different Long-Chain Imidazolium Ionic Liquids; The 15th Iranian National Congress of Chemical Engineering (IChEC), 2015.

The 17th Iranian Physical Chemistry Conference, Khajeh Nasir Toosi University, Tehran-Iran, 21-23 October, 2014.

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- 12. Alkyl Chain Length Effects on Adsorption Parameters of Imidazolium-Based Ionic Liquids at Liquid-Liquid Interface; 17th Iranian Physical Chemistry Conference, 2014.
- 13. Interfacial Tension of n-Butyl Acetate + Water System under Influence of Imidazolium Ionic Liquid at Different Temperatures; 17th Iranian Physical Chemistry Conference, 2014.

The 17th Congress of Iranian Chemistry, Vali-e-Asr University, Rafsanjan-Iran, 1-3 September, 2014.

14. Interfacial Tension of n-Butyl Acetate + Water System under Influence of Imidazolium [C6mim][C1] Ionic Liquid at Different Temperatures; 17th Iranian Chemistry Congress, 2014.

COMPLETED RESEARCH PROJECTS:

- 1. Investigation on interfacial tension of liquid-liquid systems.
- 2. Investigation on interfacial tension between n-butyl acetate+ water containing different ionic liquids.
- 3. Investigation on the effect of Imidazelium based ionic liquids on the interfacial tension of n-butyl acetate-water including temperature, kind and concentration.
- 4. Investigating on the influence of ionic liquids alkyl chain length on the liquidliquid interfacial tension.
- 5. Investigating on the influence of ionic liquids counter anion on the liquidliquid interfacial tension.

CURRENT RESEARCH PROJECTS:

- 1. Investigation on the interfacial tension between crude oil-water systems.
- 2. Investigation on the efficient ionic liquid as green surfactant applications in interfacial tension.
- 3. Investigation on applications of Gemini ionic liquid as new surfactant.
- 4. Investigation on the size of ionic liquid and applications of nano ionic liquid in interfacial tension.

WORKSHOP CERTIFICATES:

- ✓ "Hyperchem, Chemcraft, Chemoffice"
- ✓ "High-Performance Liquid Chromatography (HPLC)"
- ✓ "Nano Technology, Synthesis and Analyzing Nano Materials"
- ✓ "Safety in Chemistry Laboratory"
- ✓ "Workshop of Searching and Finding ISI Articles"

OTHERS ACTIVITIES:

- ✓ Scientific committee member of 3rd Iranian Applied Chemistry Seminar, Bu-Ali Sina University
- ✓ Co-operation with Research Institute of Petroleum Industry for synthetizing the newest surfactant to decreasing Crude oil-Water interfacial tension