# urriculum Vita

**NAME AND CURRENT SCIENTIFIC ADDRESS**

Full Name: Abdulmohsin Imqam

Assistant Professor, Petroleum Engineering

Address: Geosciences, Geological and Petroleum Engineering Department

Missouri University of Science and Technology

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**EDUCATION**

* Ph.D. Petroleum Engineering (**2011-2015**)

Missouri University of Science and Technology, Rolla, USA

PhD Dissertation: Particle gel propagation and blocking behavior through high permeability streaks and fractures

* M.S. Engineering Management (**2012-2015**)

Missouri University of Science and Technology, Rolla, USA

* M.S. Petroleum Engineering (**2004-2008**)

Tripoli University, Tripoli, Libya

MS Thesis: Skin prediction model for oil wells in sandstone oil reservoirs

* B.S Petroleum Engineering (**1999-2004**)

Sirt University, Sirt, Libya

**PROFESSIONAL WORK EXPERIENCE (12 Years of Experience)**

**Assistant Professor, Petroleum Engineering August 2017-Present**

Missouri University of Science and Technology, Rolla

**Postdoctoral, Petroleum Engineering** **2015- 2017**

Missouri University of Science and Technology, Rolla

**Production Engineer 2007-2010**

Suncor Energy Company

**Junior Production Engineer** **2005-2007**

National Oil Corporation

**RESEARCH AREAS**

* Gas Storage & EOR
* Data Analytics Applications in Petroleum Engineering
* Enhanced Geothermal Systems
* Flow Assurance
* Cement and Wellbore Integrity
* Hydraulic and Electrical Fracturing

**RESEARCH EXPERIENCE**

**Names of PhD students with dissertation completed (N=3):**

1. Mohammed Alkhamis. 2021. Evaluation of Robust Epoxy Resin Sealants for Wellbore Integrity Applications. **Advisor**.
2. Sherif Fakher. 2019. Investigating the Factors Impacting the Success of Immiscible Carbon Dioxide Injection in Unconventional Shale Reservoirs: An Experimental Study. **Advisor**.
3. Murad Abdulfarraj. 2019. Laboratory study of Using Different Types of Sealant Materials for Cement Remedial Applications. **Advisor.**

**Names of PhD students advised in progress** (**N=5):**

Mohamed Ali, PhD Student, **Advisor**, Expected Graduation: December 2023

Quainoo, Kwamena Ato,PhD Student ,**Advisor**, Expected Graduation: December 2023

Mukhtar Elturki,PhD Student, **Advisor**, Expected Graduation: May 2023

Xiaojing Ge, PhD student, **Advisor**, Expected Graduation: August 2022

Ghith Biheri, PhD student, **Advisor**, Expected Graduation, May 2023

**Names of MS students with thesis completed (N=10):**

Sherif Fakher. 2019. Asphaltene Stability in Crude Oil during Carbon Dioxide Injection and Its Impact on Oil Recovery: A Review, Data Analysis, and Experimental Study. **Advisor.**

Chen Yuan. 2019. Computational Fluid Dynamics Modeling Of Proppant Static Settling Velocity in High Viscosity Friction Reducers. **Advisor**

Priyesh Jani, 2018. Investigating The Use of Class C Fly Ash Based Geopolymer Cement as a Potential Alternative to Portland cement to Seal CO2 Storage Wells. **Advisor.**

Mohamed Ahdaya, 2018. The Development of a New Formulation of Fly Ash Class C Based Geopolymer and Assessing its Performance in Presence of Drilling Fluid Contamination. **Advisor.**

Mohammed Alkhamis, 2018. New Wellbore-Integrity Classification for Gas Migration Problems and New Cement Formulations Using Graphene Nano Platelets to Prevent Gas Migration through Cement. **Advisor.**

Vismay Shah, 2018. Investigation of Proppant Static Settling Velocity in Hydraulic Fractures Using Viscoelastic Linear Gel. **Advisor**.

Jose Aramendiz, 2018. New Nanoparticle Water-Based Drilling Fluid Formulation with Enhanced Thermal Stability and Inhibition Capabilities in the Woodford Shale. **Advisor.**

Shail Janakbhai Soni, 2018. Proppant Transport with Varying Injection Points and Its Impact on Proppant Development inside a Fracture **Co-advisor.**

Vivekvardhan Reddy, 2017. Quantifying Ceramic Proppant Transport in Complex Fracture Networks. **Co-advisor.**

Dhurgham Kadhim, 2017. Effect of Fracture Heterogeneity on Proppant Transport and Settling Mechanism **Co-advisor.**

**M.S. students monitored completed (During my Postdoc):**

**1**. Ahmad Aldalfag. 2017. Evaluation of Preformed Particle Gels Penetration and Propagation Behavior for a Conformance Control Treatments in Fractures. **Co-supervisor** with Dr. Bai.

**2**. Sujay Suresh. 2017. Pilot study to assess the viability of Carbon Reinforced gel in CO2 flooding projects. **Co-supervisor** with Dr. Bai.

**3**. Ghith Biheri 2017. Preformed particle gel conformance control performance in partially opened fracture and fully opened fracture systems. **Co-supervisor** with Dr. Bai.

**4.** Ze Wang. 2016. Effect of Reservoir Heterogeneity on Injection Pressure and Placement of Preformed Particle Gel for Conformance Control. **Co-supervisor** with Dr. Bai.

**Numbers of undergraduate students advised*:***



**Ph.D. & MS research committee member:**

* + 1. Alotibi, Adel, Ph.D., Petroleum Engineering, estimated graduate year 2024
    2. Almakimi, Abdulaziz, Ph.D., Petroleum Engineering, estimated graduate year 2024
    3. Yan Jia, Ph.D., Geology and Geophysics, estimated graduate year 2023
    4. Junchen Liu, Ph.D., Petroleum Engineering, estimated graduate year 2023
    5. Tao Song, Ph.D., Petroleum Engineering, estimated graduate year 2023
    6. Weicheng Zhang, Geology and Geophysics, graduated year 2021
    7. Faisal Shammam, MS, Petroleum Engineering, graduated year, 2021
    8. Awad Lemnifi, Ph.D., Mining Engineering, graduated year, 2020
    9. Ze Wang, Ph.D., Petroleum Engineering, graduated year, 2019
    10. Tianze Zhang, Ph.D., Geology and Geophysics, graduated year, 2019
    11. Miguel Cedeno, Ph.D., Petroleum Engineering, graduated year, 2019
    12. Mustafa Al-Alwani, Ph.D., Petroleum Engineering, graduated year, 2019
    13. Anwar Alfadhli, MS, Petroleum Engineering, graduated year, 2018
    14. Bo Wei, MS, Petroleum Engineering, graduated year, 2017

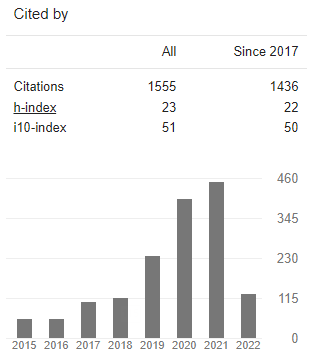
**PUBLICATIONS AND PRESENTATIONS (N=89)** **Peer-Reviewed Paper Journal Publications (N=34)**

1. Mukhtar, E; **Imqam, A**. 2021. Asphaltene Thermodynamic Flocculation during Immiscible Nitrogen Gas Injection. SPE J. (2021;): doi: <https://doi.org/10.2118/206709-PA>
2. Mukhtar, E; **Imqam, A**. 2021. Asphaltene Thermodynamic Precipitation During Miscible Nitrogen Gas Injection. SPE J. (2021;): doi: <https://doi.org/10.2118/208588-PA>
3. Biheri, G.; **Imqam, A**. 2021. Proppant Transport Using High Viscosity Friction Reducer Fracture Fluids at High-Temperature Environment. SPE J. <https://doi.org/10.2118/206750-PA>
4. Biheri, G.; **Imqam**, **A**. Settling of Spherical Particles in High Viscosity Friction Reducer Fracture Fluids. Energies 2021, 14, 2462. https://doi.org/10.3390/en14092462
5. P Jani, and **Imqam**. **A**. 2021. Class C fly ash-based alkali activated cement as a potential alternative cement for CO2 storage applications. Journal of Petroleum Science and Engineering. <https://doi.org/10.1016/j.petrol.2021.108408>.
6. M Alkhamis, and **Imqam**. **A.** 2021. A Simple Classification of Wellbore Integrity Problems Related to Fluids Migration. Arabian Journal for Science and Engineering. <https://doi.org/10.1007/s13369-021-05359-3>
7. Alkhamis, M., **Imqam, A**. Sealant injectivity through void space conduits to assess remediation of well cement failure. J Petrol Explor Prod Technol 11, 2791–2804 (2021). <https://doi.org/10.1007/s13202-021-01218-x>.
8. Milad M., Junin, R., Sidek, Akhmal., **Imqam, A.**, and Tarhuni, M. 2021.Huff-n-Puff Technology for Enhanced Oil Recovery in Shale/Tight Oil Reservoirs: Progress, Gaps, and Perspectives. Energy Fuels, 35, 21, 17279–17333. <https://doi.org/10.1021/acs.energyfuels.1c02561>
9. Fakher, S., and **Imqam**, **A**. 2020. [Application of CO2 injection in shale oil reservoirs for increasing oil recovery and CO2 storage](https://www.sciencedirect.com/science/article/pii/S0016236119323373). Fuel, Volume 265,116944, <https://doi.org/10.1016/j.fuel.2019.116944>.
10. Fakher, S., and **Imqam, A**. 2020. Flow of CO2 in micro and nano pores and its interaction with crude oil to induce asphaltene instability. SN Appl. Sci. 2, 1039. https://doi.org/10.1007/s42452-020-2850-9
11. Fakher, S., and **Imqam**, **A**. 2020. A data analysis of immiscible CO2 injection applications for enhanced oil recovery based on an updated database. SN Applied Sciences. 2, 448. https://doi.org/10.1007/s42452-020-2242-1.
12. Fakher, S., Ahdaya, M., **Imqam**, **A**. 2020. Hydrolyzed polyacrylamide – Fly ash reinforced polymer for chemical enhanced oil recovery: Part 1 – Injectivity experiments. Fuel, Volume 260, 116310, https://doi.org/10.1016/j.fuel.2019.116310.
13. Fakher, S., **Imqam**, **A**. 2020. A review of CO2 adsorption to unconventional shale rocks methodology, measurement, and calculation. SN Applied Sciences. <https://doi.org/10.1007/s42452-019-1810-8>.
14. Fakher, S., and **Imqam**, **A**. 2020. An experimental investigation of immiscible CO2 interactions with crude oil: Oil swelling and asphaltene agitation. Fuel, Volume 269,117380, <https://doi.org/10.1016/j.fuel.2020.117380>.
15. Fakher, S., and **Imqam**, **A**. 2020. High pressure-high temperature CO2 adsorption to shale rocks using a volumetric method. International Journal of Greenhouse Gas Control, Volume 95, 102998, <https://doi.org/10.1016/j.ijggc.2020.102998>.
16. Fakher, S., and **Imqam, A**. 2020. A simplified method for experimentally quantifying crude oil swelling during immiscible CO2 injection. Journal of Petroleum Exploration and Production Technology. <https://doi.org/10.1007/s13202-020-00867-8>.
17. Fakher,S., Ahdaya, Mohamed., Elturki, Mukhtar., **Imqam, A**. 2020.Critical Review of Asphaltene Properties and Factors Impacting Its Stability in Crude Oil. Journal of Petroleum Exploration and Production Technology. DOI: 10.1007/s13202-019-00811-5
18. Abdulfarraj, M**., Imqam, A**. 2019. The Potential of Using Micro-Sized Crosslinked Polymer Gel to Remediate Water Leakage in Cement Sheaths. Journal of Petroleum Exploration and Production Technology. DOI: 10.1007/s13202-019-00783-6.
19. Aramendiz, J., **Imqam, A\***. 2019. Water-based drilling fluid formulation using silica and graphene nanoparticles for unconventional shale applications, Journal of Petroleum Science and Engineering, volume 179, Pages 742-749. <https://doi.org/10.1016/j.petrol.2019.04.085>.
20. Fakher,S., Ahdaya, Mohamed., Elturki, Mukhtar., **Imqam, A\***. 2019. An Experimental Investigation of Asphaltene Stability in Heavy Crude Oil during CO2 Injection, Journal of Petroleum Exploration and Production Technology. DOI: 10.1007/s13202-019-00782-7.
21. Ahdaya, M., **Imqam\***, A. 2019. Investigating geopolymer cement performance in presence of water based drilling fluid, Journal of Petroleum Science and Engineering, Volume 176, 2019, Pages 934-942,https://doi.org/10.1016/j.petrol.2019.02.010.
22. Fakher, S., Abdelaal, H.,Elgahawy, Y., **Imqam**, **A**. 2019. A characterization of different alkali chemical agents for alkaline flooding enhanced oil recovery operations: an experimental investigation. SN Applied Sciences. doi.org/10.1007/s42452-019-1662-2.
23. Fakher, S., **Imqam**, **A**. 2019.Asphaltene precipitation and deposition during CO2 injection in Nano shale pore structure and its impact on oil recovery, Fuel Journal, Volume 237,Pages1029-1039,,https://doi.org/10.1016/j.fuel.2018.10.039.
24. Ahdaya, M., **Imqam, A**. 2019. [Fly ash Class C based geopolymer for oil well cementing](https://www.sciencedirect.com/science/article/pii/S0920410519304504). Journal of Petroleum Science and Engineering, Volume 179, Pages 750-757. <https://doi.org/10.1016/j.petrol.2019.04.106>.
25. Aramendiz, J., **Imqam, A.** 2019. Silica and Graphene Oxide Nanoparticle Formulation to Improve Thermal Stability and Inhibition Capabilities of Water-based Drilling Fluid applied to Woodford Shale. SPE Drilling & Completion Journal.
26. Ali K. A, Sun X, Bai, B, Wei, M, **Imqam**, **A**. 2018.Areal sweep efficiency improvement by integrating preformed particle gel and low salinity water flooding in fractured reservoirs, Fuel Journal, Volume 221, Pages 380-392, ISSN 0016-2361, <https://doi.org/10.1016/j.fuel.2018.02.122>.
27. **Imqam**, **A**., Bai, B., Delshad, M. 2018. Micro-particle gel transport performance through unconsolidated sandstone and its blocking to water flow during conformance control treatments, Fuel Journal, Volume 231, Pages 479-488, ISSN 0016-2361, <https://doi.org/10.1016/j.fuel.2018.05.099>.
28. Ali K. A, Bai,B., **Imqam**, **A.,** Wei, M. 2017. Experimental study of combining low salinity water flooding and preformed particle gel to enhance oil recovery for fractured carbonate reservoirs, Fuel Journal, Volume 214, November 2017.
29. **Imqam**, **A.**, Bai, B., Ze, Wang. 2017, Preformed Particle Gels Transport through Heterogeneous Void Space Conduits. SPE Journal. doi:10.2118/179705-PA
30. **Imqam, A.,** Ze, Wang., Bai, B. 2017. The Plugging Performance of Preformed Particle Gel to Water Flow through Large Opening Void Space Conduits. Journal of Petroleum Science and Engineering. Volume 156. <https://doi.org/10.1016/j.petrol.2017.04.020>.
31. Ding, H., Geng, J., **Imqam**, **A**., Bai, B. 2017. Plugging and improving oil recovery performance of polyacrylamide nanogel in porous media. TechConnect Briefs Journal. Volume 1, pages 188-191. ISBN: 978-0-9975117-8-9
32. **Imqam**, **A.,** Bai, B., Elue, H., Muhammed, F. 2016. Use of Hydrochloric Acid to Remove Filter Cake Damage from Preformed Particle Gel during Conformance Control Treatments. SPE 172352-PA. SPE-Production & Optimization Journal. 31 (3):247-257.
33. **Imqam A.,** and Bai, B. 2015. Optimize the Strength and Size of Preformed Particle Gels for Better Conformance Control Treatment. Fuel Journal. 148, 178-185.
34. **Imqam**, **A.,** Bai, B., Al-Ramadan, M. Delshad, M., Sepehrnoori, K. 2015. Preformed Particle Gel Extrusion through Open Conduits during Conformance Control Treatments. SPE-169107-PA, SPE- Journal. 20 (5):1083 - 1093.

## Peer Reviewed Full-Length Conference or Proceedings Publications (N=55)

1. Elturki, M and **Imqam**, **A**. 2021. Analysis of Nitrogen Minimum Miscibility Pressure (MMP) and Its Impact on Instability of Asphaltene Aggregates - An Experimental Study. SPE-200900-MS paper presented at SPE Trinidad and Tobago Section Energy Resources Conference.
2. Biheri, G, and **Imqam, A**. 2021. Experimental Study: High Viscosity Friction Reducer Fracture Fluid Rheological Advantages Over the Guar Linear Gel. Paper presented at the 55th U.S. Rock Mechanics/Geomechanics Symposium, Virtual, June 2021.
3. Elturki, M and **Imqam**, **A**. 2021. An Experimental Study Investigating the Impact of Miscible and Immiscible N2 Injection on Asphaltene Instability in Nano Shale Pore Structure. SPE 204294-MS paper will be presented at SPE International Conference on Oilfield Chemistry.
4. Fakher, Sherif , Elgahawy, Youssef , Abdelaal, Hesham , and **Imqam, A**. 2021. "Will Carbon Dioxide Injection in Shale Reservoirs Produce from the Shale Matrix, Natural Fractures, or Hydraulic Fractures?." Paper presented at the SPE Western Regional Meeting, Virtual, April 2021. doi: <https://doi.org/10.2118/200773-MS>
5. Fakher, Sherif , Elgahawy, Youssef , Abdelaal, Hesham , and **Imqam, A**. 2021. "What are the Dominant Flow Regimes During Carbon Dioxide Propagation in Shale Reservoirs’ Matrix, Natural Fractures and Hydraulic Fractures?." Paper presented at the SPE Western Regional Meeting, Virtual, April 2021. doi: https://doi.org/10.2118/200824-MS
6. Elturki, M and **Imqam**, **A**. 2020. High Pressure-High Temperature N2 Interaction with Crude Oil and Its Impact on Asphaltene Deposition in Nano Shale Pore Structure: An Experimental Study. Unconventional Resources Technology Conference, 20–22 July 2020, 2830-2845
7. Ahdaya, M and **Imqam**, **A**. 2020. Miscible Gas Injection Application for Enhanced Oil Recovery: A Data Analysis. Presented at 54th US rock mechanics / geomechanics symposium, Colorado, June 28-1July.
8. Elturki, M and **Imqam**, **A**. 2020. Application of Enhanced Oil Recovery Methods in Unconventional Reservoirs: A review and Data Analysis. Presented at 54th US rock mechanics / geomechanics symposium, Colorado, June 28-1July.
9. Bahri, G and **Imqam**, **A**. 2020. Proppant Transport by High Viscosity Friction Reducer and Guar Linear Gel Based Fracture Fluids. Presented at 54th US rock mechanics / geomechanics symposium, Colorado, June 28-1July.
10. Alkhamis, M and **Imqam**, **A**. 2020. Laboratory Study of Using Epoxy Resin Sealant for Wellbore Integrity Applications: Rheology and Injectivity Evaluation, and Plugging Efficiency Characterization. Accepted to be presented at AADE, Houston, April 14-15.
11. Alkhamis, M., Abdulfarraj, M., **Imqam**, **A**. 2020. Solids-Free Epoxy Sealant Materials’ Injectivity through Channels for Remedial Job Operations. SPE 20110-MS paper presented at International Petroleum Technology Conference. Dhahran, January 13-15.
12. Fakher, S., El-Tonbary, A., Abdelaal, Hesham., Elgahawy Y, **Imqam**, **A**. 2020. CO2 Sequestration in Unconventional Shale Reservoir Via Physical Adsorption. An Experimental Investigation. SPE Paper 200537 presented at SPE Europec Featured at 82nd EAGE conference and Exhibition.
13. Fakher, S., and **Imqam**, **A**. 2020. Will Carbon Dioxide Injection In Shale Reservoirs Produce From The Shale Matrix, Natural Fractures, Or Hydraulic Fractures? SPE Paper 200773 accepted to be presented at SPE Western Regional Meeting.
14. Fakher S., Elgahawy Y., Abdelaal, H., **Imqam, A**. 2020. Laboratory Studies on Immiscible CO2 Injection: A Data Analysis and Screening Criteria. 54th US Rock Mechanics/Geomechanics Symposium.
15. Fakher S., Elgahawy Y., Abdelaal, H., **Imqam, A**. 2020. Carbon Dioxide Storage in Shale: An Experimental Evaluation. 54th US Rock Mechanics/Geomechanics Symposium.
16. Ba Geri, M., **Imqam, A**., Bogdan, A., & Shen, L. 2019. Investigate The Rheological Behavior of High Viscosity Friction Reducer Fracture Fluid and Its Impact on Proppant Static Settling Velocity. Society of Petroleum Engineers. doi:10.2118/195227-MS.
17. Alkhamis, M., **Imqam**, **A**., Milad, M. 2019. Evaluation of an Ultra-High Performance Epoxy Resin Sealant for Wellbore Integrity Applications. SPE-199184-MS presented at SPE Symposium: Decommissioning and Abandonment, Kuala Lumpur, December 3-4.
18. Ba Geri, M., **Imqam, A**., & Suhail, M. 2019. Investigate Proppant Transport with Varying Perforation Density and its Impact on Proppant Dune Development Inside Hydraulic Fractures. Society of Petroleum Engineers. doi:10.2118/195018-MS.
19. Ahdaya, M. S., **Imqam, A.,** Jani, P., Fakher, S., & ElGawady, M. 2019. New Formulation of Fly Ash Class C Based Geopolymer for Oil Well Cementing. International Petroleum Technology Conference. doi:10.2523/IPTC-19393-MS.
20. Ba Geri, M., **Imqam, A**., & Flori, R. 2019. A Critical Review of Using High Viscosity Friction Reducers as Fracturing Fluids for Hydraulic Fracturing Applications. Society of Petroleum Engineers. doi:10.2118/195191-MS.
21. Aramendiz, J., & **Imqam, A.** 2019. Silica and Graphene Oxide Nanoparticle Formulation to Improve Thermal Stability and Inhibition Capabilities of Water-Based Drilling Fluid Applied to Woodford Shale. Society of Petroleum Engineers. doi:10.2118/193567-MS.
22. Aramendiz, J., **Imqam, A**. H., & Fakher, S. M. 2019. Design and Evaluation of a Water-Based Drilling Fluid Formulation Using SiO and Graphene Oxide Nanoparticles for Unconventional Shales. International Petroleum Technology Conference. doi:10.2523/IPTC-19342-MS.
23. Murad Abdulfarraj., **Imqam, A**. 2019. The Application of Micro-Sized Crosslinked Polymer Gel for Water Control to Improve Zonal Isolation in Cement Sheath: An Experimental Investigation. ARMA 19–292. 53rd US Rock Mechanics/Geomechanics Symposium, USA.
24. Fakher, S., Ahdaya, M., Elturki, M., **Imqam, A**., & Elgahawy, Y. 2019. The Effect of Unconventional Oil Reservoirs’ Nano Pore Size on the Stability of Asphaltene During Carbon Dioxide Injection. Carbon Management Technology Conference. doi:10.7122/CMTC-558486-MS
25. Ba Geri, M., **Imqam, A**., Bogdan, A., & Shen, L. 2019. Static Proppant Settling Velocity Characteristics in High Viscosity Friction Reducers Fluids for Unconfined and Confined Fractures. ARMA 19–292. 53rd US Rock Mechanics/Geomechanics Symposium, USA.
26. Chen Yuan, Ba Geri M., Chao Zeng and **Imqam, A**. 2019. Computational Fluid Dynamics (CFD) Modeling of Proppant Static Settling Velocity in High Viscosity Friction Reducers. ARMA 19–292. 53rd US Rock Mechanics/Geomechanics Symposium, USA.
27. Fakher, S., Ahdaya, M., Elturki, M., & **Imqam, A**. 2019. Carbon Dioxide Injection Pressure and Reservoir Temperature Impact on Oil Recovery from Unconventional Shale Reservoirs During Cyclic CO2 Injection: An Experimental Study. Carbon Management Technology Conference. doi:10.7122/CMTC-558561-MS
28. Fakher, S., Ahdaya, M., Elturki, M., **Imqam, A**., & Abdelaal, H. 2019. Roadmap to Asphaltene Characteristics, Properties, and Presence in Crude Oils Based on an Updated Database From Laboratory Studies. Carbon Management Technology Conference. doi:10.7122/CMTC-558560-MS
29. Fakher, S., Ahdaya, M., Elturki, M., & **Imqam**, **A**. 2019. The Impact of Thermodynamic Conditions on CO2 Adsorption in Unconventional Shale Reservoirs Using the Volumetric Adsorption Method. Carbon Management Technology Conference. doi:10.7122/CMTC-558494-MS
30. Fakher, S., & **Imqam**, **A.** (2018, October 29). Investigating and Mitigating Asphaltene Precipitation and Deposition in Low Permeability Oil Reservoirs During Carbon Dioxide Flooding to Increase Oil Recovery (Russian). Society of Petroleum Engineers. doi:10.2118/192558-RU
31. Fakher, S., **Imqam**, **A.,** & Wanas, E. (2018, December 10). Investigating the Viscosity Reduction of Ultra-Heavy Crude Oil Using Hydrocarbon Soluble Low Molecular Weight Compounds to Improve Oil Production and Transportation. Society of Petroleum Engineers. doi:10.2118/193677-MS
32. Fakher, S., & **Imqam**, **A**. (2018, October 29). Investigating and Mitigating Asphaltene Precipitation and Deposition in Low Permeability Oil Reservoirs During Carbon Dioxide Flooding to Increase Oil Recovery. Society of Petroleum Engineers. doi:10.2118/192558-MS
33. Ba Geri, M., **Imqam**, **A.,** & Dunn-Norman, S. (2018, October 5). Proppant Transport Behavior in Inclined Versus Vertical Hydraulic Fractures: An Experimental Study. Society of Petroleum Engineers. doi:10.2118/191813-18ERM-MS
34. Fakher, S., Abdelaal, H., Elgahawy, Y., El Tonbary, A., & **Imqam**, **A.** (2018, June 22). Increasing Production Flow Rate and Overall Recovery from Gas Hydrate Reservoirs Using a Combined Steam Flooding-Thermodynamic Inhibitor Technique. Society of Petroleum Engineers. doi:10.2118/191179-MS
35. Alkhamis, M., & **Imqam, A.** (2018, August 16). New Cement Formulations Utilizing Graphene Nano Platelets to Improve Cement Properties and Long-Term Reliability in Oil Wells. Society of Petroleum Engineers. doi:10.2118/192342-MS.
36. Alhuraishawy, A. K., Almansour, A., Bai, B., Wei, M., **Imqam**, **A.,** & Geng, J. (2018, August 16). Laboratory Screening Tests to Further Characterize Low-Salinity Waterflooding in Low-Permeability Sandstone Reservoir. Society of Petroleum Engineers. doi:10.2118/192159-MS
37. Fakher, S., Elgahawy, Y., Abdelaal, H., Tonbary, A. E., & **Imqam**, **A**. (2018, August 16). Reducing Excessive Water Production Associated With Gas Hydrate Reservoirs Using a Thermal In-Situ Heating-Inhibitor Method. Society of Petroleum Engineers. doi:10.2118/192382-MS
38. Fakher, S. M., **Imqam,** **A**., & Bai, B. (2018, August 16). Enhancing Carbon Dioxide Flooding Sweep Efficiency in High Permeability Hydrocarbon Reservoirs Using Micro-Particle Gels. Society of Petroleum Engineers. doi:10.2118/192381-MS
39. Alhuraishawy, Ali., Xindi Sun, Bai, B., **Imqam**, **A**.2017. Improve Plugging Efficiency in Fractured Sandstone Reservoirs by Mixing Different Preformed Particles Gel Size. doi:10.2118/188023-MS SPE-188023 -MS presented at the SPE-KSA Annual Technical Symposium & Exhibition held in Dammam, Saudi Arabia, 24–27 April.
40. Fakher, S., **Imqam**, **A.,** Bai, B. 2017. Novel Mathematical Models to predict Preformed Particle Gel Placement and Propagation through Fractures. Society of Petroleum Engineers. doi:10.2118/187152-MS.
41. Kadhim, D., **Imqam**, **A.,** & Dunn-Norman, S. (2017, July 24). Ceramic Proppant Transport and Placement in Heterogeneous Fracture Systems. Unconventional Resources Technology Conference. doi:10.15530/URTEC-2017-2697613
42. **Imqam**, **A**., Aldalfag, A., Bai, B. 2016. Evaluation of Preformed Particle Gels Penetration into Matrix for a Conformance Control Treatment in Partially Open Conduits. Paper SPE 181545 presented at the SPE Annual Technical Conference and Exhibition, Dubai, UAE, 26-28 September.
43. Alhuraishawy, **A**., **Imqam**, A., Bai, B. 2016 Coupling low salinity water flooding and PPG to enhanced oil recovery for fractured carbonate reservoir. Paper SPE 180386 presented at the SPE Western Regional Meeting, Alaska, 23-26 May.
44. Goudarzi, A., Alhuraishawy, A., Bai, B., **Imqam**, **A.**, Delshad, M. 2016. Experimental and Simulation Study of Water Shutoff in Fractured Systems using Microgels. Paper SPE 180375 presented at the SPE Western Regional Meeting, Anchorage, Alaska, 23-26 May.
45. Sujay S., Baojun B., **Imqam**, **A**. 2016. Preformed Particle Gels Improve Oil Recovery in Mature Oil Field. Paper presented to 78th EAGE Conference and Exhibition. Vienna, Austria. 30 May - 2 June.
46. **Imqam**, **A**., Bai, B., Wang, Z., M., Delshad, M. 2016. Effect of Heterogeneity on Propagation, Placement, and Conformance Control Performance of Microgels Treatments. Paper SPE 179705 presented at the SPE Improved Oil Recovery Symposium, Tulsa, Oklahoma, 9-13 April.
47. **Imqam,** **A.,** Bai, B., Wei, M. 2015. Combined Conformance Treatment with Mobility Control Improve Oil Sweep Efficiency in Non-Cross Flow Heterogeneous Reservoirs. Paper SPE 176728 presented at SPE Russian Petroleum Technology Conference, Moscow, Russia. 26-28 October.
48. **Imqam**, **A.,** Bai, B., Wei, M. 2015. Combined Conformance Treatment with Mobility Control Improve Oil Sweep Efficiency in Non-Cross Flow Heterogeneous Reservoirs. Paper SPE 176728 (RU) presented at SPE Russian Petroleum Technology Conference, Moscow, Russia. 26-28 October.
49. **Imqam**, **A**., Bai, B., Delshad, M. 2015. Preformed Particle Gel Propagation through Super-K Permeability and its Resistance to Water Flow during Conformance Control. Paper SPE 176429 presented at the 2015 SPE/IATMI Asia Pacific Oil & Gas Conference and Exhibition, Bali, Indonesia, 20-22 October.
50. **Imqam**, **A.,** Goudarzi, A, Delshad, M., Bai, B., 2015. Development a Mechanistic Numerical Simulator for Preformed Particle Gel Applications in Non-Cross Flow Heterogeneous Reservoirs. Paper SPE 175058 presented at the 2015 SPE Annual Technical Conference Exhibition, Houston, 28-30 September.
51. **Imqam**, **A.,** Bai, B., Wei, M., Delshad, M., Sepehrnoori, K. 2014. Characterizations of Disproportionate Permeability Reduction of Particle Gels through Fractures. Paper SPE 171531 presented at the 2014 SPE Asia Pacific Oil & Gas Conference and Exhibition Submission, Adelaide, Australia, 14 – 16 October.
52. **Imqam**, **A.,** Elue, H., Muhammed, F., Bai, B. 2014. Hydrochloric Acid Applications to Improve Particle Gel Conformance Control Treatment. Paper SPE 172352 presented at the NAICE conference, Lagos, Nigeria, 5-7 August.
53. F.A. Muhammed, B. Bai., **Imqam**, **A**., A.O. Almansour. 2014. Preformed Particle Gel-Enhanced Surfactant Imbibition for Improving Oil Recovery in Fractured Carbonate Reservoirs. Paper SPE 170067 presented at the SPE Heavy Oil Conference, Alberta, Canada, 10-12 June.
54. **Imqam**, **A**., Bai, B., Al-Ramadan, M., Wei, M., Delshad, M., Sepehrnoori, K. 2014. Preformed Particle Gel Extrusion through Open Conduits during Conformance Control Treatments. Paper SPE 169107 presented at the SPE Improved Oil Recovery Symposium, Tulsa, Oklahoma, 12-16 April.
55. Almohsin, Aymen., Bai, B., **Imqam**, **A**., Wei, M., Kang, W., Delshad, M., Sepehrnoori, K. 2014. Transport of Nanogel through Porous Media and Its Resistance to Water Flow. Paper SPE 169078 presented at the SPE Improved Oil Recovery Symposium,Tulsa, Oklahoma, 12-16 April.

**HIGHLIGHTED PUBLICATIONS AND GOOGLE SCHOLAR PROFILE:**



<https://scholar.google.com/citations?user=TqDeU0UAAAAJ&hl=en>

**INVITED TALKS**

1. Imqam, A. 2021. Fly ash-based Alkali-activated Cement Manufacturing to Mitigate Energy and CO2 Emission Impact. Transportation Infrastructure Conference.
2. Imqam, A. Preformed particle gels for water conformance control applications. Louisiana energy R&D forum. October 2017
3. Imqam, A and Bai, B. Preformed particle gel transport and placement through conduits and fractures. Semi-annual JIP meeting. Rolla, October 2016.
4. Imqam, A. and Bai, B. 2016. Experimental Methods to Evaluate Preformed Particle Gels. Presented to EOGA- A Flotek Company, January, 27th.
5. Imqam, A. 2015. Water Management in Mature Oil Fields using Advanced Particle Gels. Presented at RPSEA onshore technology workshop. Canonsburg, PA, October 27-28.
6. Imqam, A. and Bai, B. 2015. Preformed Particle Gels for Conformance Control. Presented to Kemira Company, October, 14th.
7. Imqam, A. and Bai, B. 2015. Preformed Particle Gel Transport and Placement through Void Space Conduits. Presented in the second Semi-Annual Consortium meeting, Houston, Texas, October, 1st
8. Imqam, A. and Bai, B.2015. Preformed Particle Gel Transport through Super-K Features. Presented in the first Semi-Annual Consortium meeting, April, 27th
9. Imqam, A. 2014. Preformed Particle Gel Propagation through Open Fracture Reservoirs. Presented at SPE Rocky Mountain/Mid Continent/Eastern North America Paper Contest and Technology Bowl, Tulsa, Oklahoma, April 12th.
10. Imqam, A. and Bai, B. 2013. Experimental Methods to Evaluate Preformed Particle Gels. Presented to ConocoPhillips Conformance Control Research Group, Rolla, Missouri, August 21st
11. Imqam, A 2013. Gel Pack Concept to Optimize Particle Gels For Conformance Control Treatments. Poster presented during the 3rd Annual Energy Technology Symposium, Rolla, Missouri, April 15th
12. Imqam, A. 2010. Scale precipitation overview for sandstone oil reservoirs in Amal field. Presented in the weekly Exploration and Appraisal meeting, Petro-Canada Oil Companies, March 15th

**HONORS**

1. NSF Award, CBET, June 2020
2. Missouri S&T 2019-20 Outstanding Teaching Award
3. Best Researcher Award, September 2020
4. Outstanding Ph.D. Student, April 2015
5. PhD scholarship, September 2010

## MEMBERSHIPS IN PROFESSIONAL HONORARY SOCIETIES

1. Member Society of Petroleum Engineering (SPE)
2. Full Membership in Sigma Xi, the Scientific Research Society
3. Member of American Association of Petroleum Geologists (AAPG)
4. Member of American Oil Chemists Society (AOCS)

**SCHOLASTIC ACTIVITIES**

**Undergraduate Courses Taught:**

1. PET ENG 3320 – Reservoir Petrophysics
2. PET ENG 3330 - Well Logging
3. PET ENG 4210- Drilling and Well Design
4. PET ENG 4520 - Well Test Analysis
5. PET ENG 4611 - Secondary Recovery of Petroleum

**Graduate Courses Taught:**

1. PET ENG 6001- Advanced Well Design Technology
2. PET ENG 5521 - Advanced Well Test Analysis
3. PET ENG 6551 - Advanced Reservoir Engineering II

## Dr. IMQAM’S STUDENTS AWARDS AND RECOGNITION

My students were well presented and acknowledged by their academic achievements and community services:

1. Sherif Fakher, SPE International Student Paper Contest, 2019, 3rd Place
2. Sherif Fakher, SPE Regional (Mid-Continent) Student Paper Contest, 2019, 1st Place
3. Sherif Fakher, GGPE Second Annual Research Colloquium Poster Competition, 2019, 1st Place
4. Mohammed Alkhamis, GGPE Second Annual Research Colloquium Poster Competition, 2019, 2nd place
5. Sherif Fakher, Chancellor's Graduate Fellowship Poster Session, 2019, 1st Place
6. Sherif Fakher, Three Minute Thesis Competition, 2019, 2nd Place
7. Mohamed Ahdaya, GGPE First Annual Research Colloquium Poster Competition, 2018, 1st place
8. Mohammed Alkhamis, GGPE First Annual Research Colloquium Poster Competition, 2018, 2nd place
9. Sherif Fakher, Louisiana Gulf Coast Student Paper Competition, 2017, 1st Place
10. Sherif Fakher, MST Petroleum Engineering SPE Poster Competition, 2017, 1st Place
11. Sherif Fakher, Three Minute Thesis Competition, 2017, 3rd Place

**UNIVERSITY, PUBLIC, AND PROFESSIONAL SERVICE**

1. ACS Petroleum Research Fund Reviewer, 2021
2. SPE Chapter Advisor (December 2017-present)
3. Session chair at the SPE Western Regional Meeting, 2021-2022
4. Reviewer at the Unconventional Resources Technology Conference, 2021-2022
5. Semifinals Judge - International Switch Energy Case Competition, 2020
6. Served on student travel committee, 2019
7. Served on the Ms and PhD research committee for petroleum and geology students
8. Served on NTT faculty search committee, 2019
9. GTA Workshop as PE examiner (August 2017-present)
10. Reviewer (Jan 2018-present) Journal of Petroleum Science and Engineering
11. Reviewer (Jan 2015-present) Fuel- Journal- Elsevier
12. Reviewer (Jan 2016-present) Journal of Technology Innovations in Renewable Energy
13. Editorial Board of The Petroleum & Petrochemical Engineering Journal (PPEJ)