

Talal M. AL-Bazali, *Ph.D*

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LANGUAGES:

Arabic (native)
English (fluent)
Danish (good)

EDUCATION:

Ph.D Petroleum Engineering, University of Texas at Austin, Austin, Texas, USA, (May 2003 - May 2005).
M.S Petroleum Engineering, University of Texas at Austin, Austin, Texas, USA, (August 2000 - May 2003).
B.S Petroleum Engineering, University of Tulsa, Tulsa, Oklahoma, USA, (August 1992 - December 1996).

RESEARCH METRICS

(As of May 1st, 2022)

Google Scholar:

Citations: 1275	h-index: 20	i10-index: 26
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Research Gate:

Citations: 970	Research Interest: 525	h-index: 18
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RESEARCH INTERESTS:

Oil & Gas Organizational Corporate Behaviour
Oil & Gas Investments & Valuations
Oil Price Volatility
Oil and Gas Supply & Demand Theory
Petroleum Economics

Drilling Fluids Engineering (Design & Application)
Wellbore Stability in Shale Formations
Petro-physical Properties of Shales
Rock Mechanics (Geomechanics)
Underbalanced Drilling
Clay Mineralogy
Alternative Energy Engineering & Applications
Environmental Engineering

**COURSES
TAUGHT:**

Undergraduate Courses:

1. Resource Economics and Valuation (University of Texas).
2. Statistics and Probability for Engineers (Kuwait University).
3. Drilling Engineering and Completion (Kuwait University).
4. Reservoir Rock Properties (Kuwait University).
5. Introduction to Petroleum Engineering (Kuwait University).
6. Fundamentals of Petroleum Engineering (Kuwait University)
7. Petroleum Engineering for nonengineers (Kuwait University)
8. Mud Engineering lab (Kuwait University).
9. Fundamentals of Petroleum Economics (Kuwait University).
10. Petroleum Economics (Kuwait Petroleum Corporation).
11. Introduction to Petroleum Engineering Design (Kuwait University).
12. Drilling Fluids Engineering (Kuwait University).
13. Petroleum Geology (Kuwait University).
14. Rock Mechanics (Kuwait Oil Company).
15. Fundamentals of Drilling Fluids (Kuwait Oil Company).
16. Transport in Porous Media (Kuwait University).
17. Specialized courses in Petroleum Economics & Engineering tailored to the client needs.

Graduate Courses:

1. Advanced Petroleum Economics (Kuwait University Graduate School)
2. Advanced Transport in Porous Media (Kuwait University Graduate School)
3. Advanced Drilling Engineering (Graduate School – Kuwait University).
4. Advanced Drilling Fluids (Kuwait University Graduate School).

**PROFESSIONAL
AFFILIATIONS:**

Society of Petroleum Engineers (SPE)
Pi Epsilon Tau Society
American Association of Drilling Engineering (AADE)
American Rock Mechanics Association (ARMA)
University of Texas Alumni Association
University of Tulsa Alumni Association
Society of Engineers (Kuwait)
Kuwait University Faculty Association
American Chemical Society (ACS)

WORK EXPERIENCE:

Oil Industry:

- (9/2023 – Present) **Vice President – World Petroleum Counsel**
- (10/2012 – 5/2015) **Member of the Board of Directors (KPC Energy Venture Incorporated - KPCEV)**
- (3/2001 – 3/2005) **Oil & Gas Industry Representative** for University of Texas
- (10/2000 – 3/2005) **Coordinator** of University of Texas Drilling Research Consortium
- (5/1999 – 5/2000) **Project leader** for Q8 Gas Stations Optimization & Improvement (**Kuwait Petroleum International – Copenhagen, Denmark**)
- (2/1999 - 5/2000) **Assistant Retail Manager - Kuwait Petroleum International Copenhagen, Denmark**
- (10/1997 – 2/1999) **Project Member- Q8 lubricants Development (Kuwait Petroleum International Copenhagen, Denmark)**
- (6/1997 – 2/1999) **Assistant Marketing Manager - Kuwait Petroleum International Copenhagen, Denmark**
- (2/1997 – 6/1997) **Marketing Analyst - Kuwait Petroleum International London, U.K**

Academic & Research:

- (9/2023- Ongoing) **Candidate for Professorship** (applied to professorship promotion on September 2023).
- (9/2025-Present) **Editor** of Scientific Reports, Nature Research Publisher.
- (2/2023-Present) **Editor** of Advancement in Mining and Mineral Engineering, Iris Publisher.
- (2/2023-Present) **Editorial board member** of Geology Geophysics and Earth Science Journal, Sanderman Publishing.
- (12/2022-Present) **Editorial board member** of Journal of Oil and Gas Research Reviews, OPAST Publishing Group LLC.
- (12/2022-Present) **Editorial board member** of Petroleum & Petrochemical Engineering Journal (PPEJ), Medwin Publishers.
- (12/2021 – Present) **Editorial board member** of Petroleum Science and Engineering Journal, Science Publishing Group.
- (5/2015- 10/2017) **Board Member** (Kuwait University Faculty Association)
- (2003- Present) completed **51** publications (scientific journals & conference papers).
- (3/2014 - Present) **Associate Professor** - Kuwait University
- (5/2005 – 3/2014) **Assistant Professor** - Kuwait University
- (2012 – Present) **Head & Operator** of Rock Mechanics Lab – Kuwait University
- (2005 – Present) **Coordinator** of Mud Lab – Kuwait University
- (9/2000 – 5/2005) **Research Assistant** at the University of Texas – Austin

Other Involvements:

- (Oct 6th, 2021) **Representative** of Kuwait in the **NATO-ICI** conference
- (2006 – Present) **Political activist** (candidate for 2008 Kuwaiti National Assembly – Second District)
- (2/2014 – 6/2019) **Advisory Board Member** (Jahra City Governate)

- (5/2006 – Present) Distinguished Reviewer & Guest for Oil & Gas Industry Affairs (BBC - CNN – TRT - Al-Arabia – Al-Jazeera – CNBC Arabia– Sky News - Other Channels)
- (2006 – Present) Technical reviewer for several scientific journals

HONORS & AWARDS

Thomas Frick award, The University of Tulsa, 1996
 Distinguished speaker at various oil & gas international conferences & exhibitions
 President and Dean Honor Roll, The University of Tulsa, Tulsa Oklahoma, USA.
 President and Dean Honor Roll, The University of Texas – Austin, Austin, Texas, USA.
 Bachelor of Science with Cum Laude

UNIVERSITY & COMMUNITY SERVICES:

1. Member of Graduate Studies Committee of Petroleum Engineering & Geosciences MS Program. (Collge of Graduate Studies).
2. Member of Outstanding Teaching Award Committee (Collge of Engineering & Petroleum).
3. Expert witness for a lawsuit between oil companies (State of Kuwait).
4. Member of committee for Improving Research Laboratory Usage at the Collge of Engineering & Petroleum (College of Engineering & Petroleum – Kuwait University).
5. Member of committee for Outstanding Graduates Selection for Council of Ministers (State of Kuwait).
6. Member in Promotion committee (Petroleum Engineering Department – Kuwait University).
7. Member of Scholarship committee (Petroleum Engineering Department – Kuwait University).
8. Supervisor of SPE student chapter (Petroleum Engineering Department – Kuwait University).
9. Course Schedule Committee Decider (Petroleum Engineering Department – Kuwait University).
10. Social committee Decider (Petroleum Engineering Department – Kuwait University).
11. Students' Affairs Committee Member (Petroleum Engineering Department – Kuwait University).
12. Follow-up & Cooperation Committee Member (Petroleum Engineering Department – Kuwait University).
13. Society of Petroleum Engineers Coordinator (Petroleum Engineering Department – Kuwait University).
14. Engineering Societies Committee (College of Engineering & Petroleum - Kuwait University)
15. Conducted short courses for Kuwaiti companies and corporations
16. Participated in technical conferences & exhibitions both regionally and globally
17. KIPCE 2005 Committee Member (Petroleum Engineering Department – Kuwait University).

18. Budget & Equipment Committee Member (Petroleum Engineering Department – Kuwait University).
19. Strategy & Planning Committee Decider (Petroleum Engineering Department – Kuwait University).
20. Petroleum & Petrochemical Center Committee Member (College of Engineering & Petroleum – Kuwait University).
21. High School Engineering Competition Committee Member (College of Engineering & Petroleum – Kuwait University).
22. Equification of External University Diploma Committee Member (Kuwait University).
23. Heavy Oil Conference & Exhibition (2014) Executive Board Member (Kuwait Oil Company).
24. Appointment & Contract Renewal Committee Member (Petroleum Engineering Department – Kuwait University).
25. Engineering Research Committee Member (College of Engineering & Petroleum – Kuwait University).
26. Research Committee Decider (Petroleum Engineering Department – Kuwait University).
27. ERC Committee Member (College of Engineering & Petroleum – Kuwait University)
28. Sabbatical Committee (Petroleum Engineering Department – Kuwait University)

LABPRATORIES UNDER SUPERVISION:

1. Rock Properties Lab (Undergraduate)
2. Rock Mechanics Lab (Graduate)
3. Rock Preparation Lab (Graduate)

FUNDED RESEARCH PROJECTS:

1. **Kuwait Oil Company & Kuwait University Project**
 Title: CHARACTERIZATION AND MOBILITY MODELING AS A MEANS OF STIMULATION TREATMENT DESIGN FOR THE COMPLEX MAKHUL CARBONATE RESERVOIR
 Duration: March 2023 – December 2024
 Budget: 180,000 KD
2. **Kuwait University Project (EP 01/10):**
 Title: An Experimental Investigation of the Impact of Time Dependent Water and Ions Flow on Shale Stability and Petrophysical Properties When Shale Interacts with Water Based and Oil Based Muds.
 Duration: November 15th, 2011 – May 14th, 2013.
 Budget: 9,750 KD
3. **Kuwait University Project (EP 01/07):**
 Title: An Experimental Investigation of the Impact of Diffusion Osmosis and Chemical Osmosis on the Stability of Shales.
 Duration: April 1st, 2008 – March 30th, 2009.
 Budget: 4350 KD
4. **Kuwait University Project (ZE 08/05):**
 Title: The Effect of Surface Hydration (Capillary Effect) on the Shales's Water Activity.
 Duration: April 1st, 2006 – March 30th, 2007.

Budget: 2000 KD

5. The University of Texas at Austin Drilling Consortium:

Title : Experimental Study of the Membrane Behavior of Shale During Interaction with Water-based and Oil-based Muds.

Duration : August, 2000 – May, 2005.

Budget : \$2,000,000

Funded by:

MI Drilling Fluids Company

OGS

Chevron Texaco Corporation

Petrobrass Company

Conoco-Phillips Company

Marathon Oil Company

MASTER THESIS-PROJECT SUPERVISION:

• **Thesis-Projects Completed:**

1. Hawrra Al-Sarraf “The Influence of Water and Solutes Uptake on Shale Effective Porosity” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2020-2021).
2. Shadad Hashim “The Impact of Temperature on the Ability of Oil Based Mud to Act as a Perfect Semi-Permeable Membrane” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2020-2021).
3. Eman Jamal AL-Duaij “Impact of Ionic Type and Concentration on Mechanical Stability of Shale” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2021-2022).
4. Abrar Ahmad Almutairi “The Effect of Temperature on Capillary Entry Pressure of Caprocks” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2021-2022).
5. Bashayer Mohammad AL-Osaimi “Uncertainty in Oil and Gas Reserves Estimation When Using Volumetric Method” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
6. Sarah AL-Enezi “Experimental investigation of the effects of temperature on the permeability of shale” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
7. Zainab Adnan Alkhaja “Comprehensive Analysis of Membrane Efficiency of Shale: Descriptive Statistics & Laboratory Data Analysis” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
8. Manal AL-Khalidi “Experimental Analysis of The Impact of Ionic Concentration & Type on Shale’s Stability: Dilute vs. Concentrated Salt Solutions” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
9. Muneera Ali AL-Ajmi “The Role of Chemical Osmosis on Wellbore Stability During Shale Interactions with Aqueous Solutions” M.S Thesis,

Petroleum Engineering MS Program, College of Graduate Studies, Kuwait University (2023).

10. Abdulrahman Sheref “Diffusion Osmosis in Shale Rocks: Ionic Mobility Perspective and Consideration” M.S Thesis, Petroleum Engineering MS Program, College of Graduate Studies, Kuwait University (2023).
11. Sarah Almrshad “Experimental assessment of Debye Huckel length using linear swelling technique” M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
12. Fawaz J. AlSayed Omar “ On Wellbore Stability: Impact of Specimen Size on the Mechanical and Physiochemical Properties of Shale” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
13. Abdullrahman S. Al-Rushidi “EMPIRICAL RELATIONSHIP BETWEEN UCS AND TENSILE STRENGTH MEASUREMENTS OBTAINED FROM POINT LOAD TEST AND COMPRESSION TESTS” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
14. Wasmya Al-Mutari “ Tensile strength measurements under static loading compresion test and point load test” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
15. Danah AL-Mutairi “Parametric Analysis of the Performance of Horizontal and Vertical wells: Economic and Technical Perspectives” Shale” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
- **Thesis-Projects in Progress:**
 16. Taibah Kandari”Analyzing the Effect of Drilling Mud’s Chemistry on the Stiffness Modulus (Young’s Modulus) of Rocks with Different Lithologies” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2023-Present).
 17. Medhawi Al-Budawi “Effects of water cycling and temperature on the brittleness of shale” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2025-Present).
 18. Sara Al-Fadhli” Effect of ionic strength and water content on Young’s Modulus of sedimentary rocks” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2025-Present).
 19. Abdullah Al-Salal “Impact of Potassium ion on clay swelling: wellbore stability perspective” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2025-Present).
 20. Khalid Al-Eidan ”Impact of Polymers on wellbore stability in shale formations” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2025-Present).
 21. Rawan Al-Mualem ”Effects of water content and strain rate on Young’s modulus of Berea Sandstone” M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2025-Present).

OTHER**ACTIVITIES:**

- Technical Reviewer for several scientific journals
- Technical analyst for oil & gas affairs (AL-Jazeera, AL-Arabia, AL-Watan, AL-Raii, Kuwait TV, Dubai Space Channel, BBC World, Egyptian Space Channel, CNBC AL-Arabia)
- Writer in oil and gas affairs (AL-Watan, AL-Raii, Billion Plus Magazine, others)
- Member in many Kuwait University (College of Petroleum And Engineering) technical and non-technical committees

CONFERENCE PARTICIPATIONS:

- Attended **39** technical conferences (USA, Europe, Asia, Africa, Australia & middle-East). List of conferences is available upon request.
- Presented technical papers in **23** conferences all over the world.
- Member of scientific committee in many technical conferences.
- Member of executive committee in some technical conferences.

TECHNICAL PUBLICATIONS:

- 1) Talal Al-Bazali (2025): Measurement of Chemically Induced Poisson's Ratio of Shale, Journal of Energy Engineering, Volume 151, Issue 5, <https://doi.org/10.1061/JLEED9.EYENG-5809>
- 2) Al-Bazali, T. (2025). Impact of water and ions on Poisson's ratio of shale under loading and non-loading conditions. *Geomechanics and Geoengineering*, 20(6), 1262–1276. <https://doi.org/10.1080/17486025.2025.2520328>
- 3) AL-Bazali, T. (2025). Insight on the impact of ion's type and concentration on the tensile strength of shale. *Geomechanics and Geoengineering*, VOL. 20, NO. 5, 994–1005.
- 4) AL-Bazali, T. (2025). Impact of chemical osmosis, diffusion osmosis and ionic diffusion on drilling mud salinity design. *Geosystem Engineering*, 28(1), 1-11.
- 5) Talal AL-Bazali (2024). On the DLVO theory: experimentally measured Debye Huckel length. *J. Eng. Mech.*, 2024, 150(7): 04024034.
- 6) Alkhaja, Z., & AL-Bazali, T. (2024). Comprehensive analysis of membrane efficiency of shale: descriptive statistics & laboratory data analysis. *Petroleum Science and Technology*, 42(24), 3648-3667.
- 7) Danah AL-Mutairi, Talal AL-Bazali & Ali Garouch "Parametric Analysis of the Performance of Horizontal and Vertical wells: Economic and Technical Perspectives" Shale" M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
- 8) Fawaz J. AlSayed Omar & Talal AL-Bazali " On Wellbore Stability: Impact of Specimen Size on the Mechanical and Physiochemical Properties of Shale"

- M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
- 9) Abdulrahman S. Al-Rushidi & Talal AL-Bazali "EMPIRICAL RELATIONSHIP BETWEEN UCS AND TENSILE STRENGTH MEASUREMENTS OBTAINED FROM POINT LOAD TEST AND COMPRESSION TESTS" M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
 - 10) Wasmya Al-Mutari Salah Al-Muddhi & Talal AL-Bazali " Tensile strength measurements under static loading compression test and point load test" M.S Thesis, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
 - 11) Sarah Almrshad & Talal AL-Bazali "Experimental assessment of Debye Huckel length using linear swelling technique" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2024).
 - 12) Muneera Alajmi & Talal AL-Bazali (2023). Experimental Inspection of the Influence of Chemical Osmosis on Shale Swelling and Subsequent Wellbore Stability. Journal of Eneregy Engineering. Volume 149, Issue 5.
DOI: 10.1061/JLEED9.EYENG-4996
 - 13) Abdulrahman Sheref & Talal AL-Bazali (2023). On shale swelling: the unrecognized role of diffusion osmosis, Geosystem Engineering,
DOI: 10.1080/12269328.2023.2234927
 - 14) M. M. Alkhaldi & T. M. AL-Bazali (2023). Experimental analysis of the impact of ionic concentration and type on shale's stability: dilute vs. concentrated salt solutions, Geosystem Engineering, 26:4, 129-141, DOI: 10.1080/12269328.2023.2227181.
 - 15) Muneera Ali AL-Ajmi & Talal AL-Bazali "The Role of Chemical Osmosis on Wellbore Stability During Shale Interactions with Aqueous Solutions" M.S Thesis, Petroleum Engineering MS Program, College of Graduate Studies, Kuwait University (2023).
 - 16) Abdulrahman Sheref & Talal AL-Bazali "Diffusion Osmosis in Shale Rocks: Ionic Mobility Perspective and Consideration" M.S Thesis, Petroleum Engineering MS Program, College of Graduate Studies, Kuwait University (2023).
 - 17) Sarah Alenezi and Talal Al-Bazali. Experimental and Mathematical Modelling of Thermal Effects on Shale's Permeability. Res Dev Material Sci. 18(3). RDMS. 000938. 2023. DOI: 10.31031/RDMS.2023.18.000938
 - 18) Mohammad B and Al-Bazali T " Mathematical Modification to the Classical Volumetric Method for Estimating Oil Reserves" Petroleum and Petrochemical Engineering Journal (2023), 7(1): 000324. DOI: 10.23880/ppej-16000324.
 - 19) Manal AL-Khaldi & Talal AL-Bazali "Experimental Analysis of The Impact of Ionic Concentration & Type on Shale's Stability: Dilute vs. Concentrated Salt Solutions" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
 - 20) Mohammad Al-Zuhair, Talal AL-Bazali "Causality Between Energy Consumption and Economic Growth: The case of Kuwait" International

- Journal of Energy Economics and Policy (2022), 12(6), pages 22-29.
- 21) Bashayer Mohammad AL-Osaimi & Talal AL-Bazali "Uncertainty in Oil and Gas Reserves Estimation When Using Volumetric Method" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
 - 22) Sarah AL-Enezi & Talal AL-Bazali "Experimental investigation of the effects of temperature on the permeability of shale" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
 - 23) Zainab Adnan Alkhaja & Talal AL-Bazali "Comprehensive Analysis of Membrane Efficiency of Shale: Descriptive Statistics & Laboratory Data Analysis" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
 - 24) Eman AL-Duaij & Talal AL-Bazali (2022) "Time-Dependent Measurements of Shale's Compressive Strength When Contacting Ionic Solutions" ACS Omega, 7(29): 25625-25634.
 - 25) Hashem, S., AL-Bazali, T., Garrouch, A., & Owayed, J. (2022). Evaluation of membrane quality and entrance pressure of oil-based mud at elevated temperatures. *Journal of Geophysics and Engineering*, 19(4), 927-939.
 - 26) AL-Bazali, Talal. (2022). A critical investigation of diffuse double layer changes in clay-electrolyte systems at high temperatures. *Journal of Geophysics and Engineering*, 19(4), 940-954.
 - 27) Hawra Al-Sarraf, Talal Albazali & Ali Garrouch (2022) Role of diffusion osmosis on the mechanical and petrophysical alterations of shale when interacting with aqueous solutions, *Geosystem Engineering*. Volume 25, Issue 1–2, Pages 13–24.
 - 28) Talal Al-Bazali (2023) On the consequences of shale desaturation: physicochemical and mechanical perspectives, *Petroleum Science and Technology*, 41:9, 938-958.
 - 29) Abrar Almutairi, Talal Al-Bazali. (2022). A Critical Appraisal of Thermal Effects on CO₂ Entrance Pressure. *Petroleum Science and Engineering*, 6(1), 26-37.
 - 30) Talal AL-Bazali and Mohammad Al-Zuhair. (2022). The Use of Fuzzy Logic to Assess Sustainability of Oil and Gas Resources (R/P): Technical, Economic and Political Perspectives. *International Journal of Energy Economics and Policy*, vol. 12(1), pages: 449-458.
 - 31) Talal AL-Bazali & Abrar Ahmad Almutairi "The Effect of Temperature on Capillary Entry Pressure of Caprocks" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
 - 32) Talal AL-Bazali & Eman Jamal AL-Duaij "Impact of Ionic Type and Concentration on Mechanical Stability of Shale" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2022).
 - 33) Talal AL-Bazali & Abrar Ahmad Almutairi "The Effect of Temperature on Capillary Entry Pressure of Caprocks" M.S Project, Petroleum Engineering &

Geosciences MS Program, College of Graduate Studies, Kuwait University (2021-2022).

- 34) Talal AL-Bazali. "On CO₂ Sequestration: Changes in CO₂ Entry Pressure and Adsorption Capacity by Heat" Journal of Porous Media, 25(4):77-93. (2022).
- 35) AL-Bazali, T. Insight into Debye Hückel length (κ^{-1}): smart gravimetric and swelling techniques reveals discrepancy of diffuse double layer theory at high ionic concentrations. J Petrol Explor Prod Technol 12, 461 – 471 (2022).
- 36) Talal Al-Bazali (2021) On the stability of shale: the role of zeta potential (ζ) and Debye Hückel length (κ^{-1}) on shale swelling, Petroleum Science and Technology, Volume 39:21-22, Pages: 1008-1026.
- 37) Talal AL-Bazali (2022) A quick method for estimating pore throat radii of shale using a combination of pressure transmission and capillary breakthrough measurements, Exploration Geophysics, 53 (4): 372-385.
- 38) Talal, AL-Bazali. "Insight on the inhibitive property of potassium ion on the stability of shale: a diffuse double-layer thickness (κ^{-1}) perspective." Journal of Petroleum Exploration and Production Technology (2021) 11:2709 – 2723
- 39) Talal AL-Bazali & Shahad Hashem "The Impact of Temperature on the Ability of Oil Based Mud to Act as a Perfect Semi-Permeable Membrane" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2021).
- 40) Talal AL-Bazali & Hawrra Al-Sarraf "The Influence of Water and Solutes Uptake on Shale Effective Porosity" M.S Project, Petroleum Engineering & Geosciences MS Program, College of Graduate Studies, Kuwait University (2021).
- 41) Talal AL-Bazali "Thermodynamically Predicting the Impact of Temperature on the Performance of Drilling Bits as a Function of Time" presented at the 6th digital oil field international academic conference (DOFIAC 2019), 25-25 October, 2019. Xian, China.
- 42) Talal AL-Bazali and Mohammad Al Rakf "The role of chemical potential and molecular diffusion on the geo-mechanical stability of shale" presented at the 2018 World Congress on Advances on Civil, Environmental & Material Research (ACEM18), Songdo Convensia, Incheon, Korea, August 27-31, 2018.
- 43) Talal AL-Bazali "Thermodynamically predicting the impact of temperature on the performance of drilling bits as a function of time" presented at the 2017 World Congress on Advances on Advances in Nano, Bio, Robotics and Energy (ANBRE17), Seoul, Korea, 28 August – 1 September, 2017.
- 44) Talal AL-Bazali "On the stability of shale: The geo-mechanical effect of water moisture and ionic diffusion" presented at the 2017 World Congress on Advances on Advances in Nano, Bio, Robotics and Energy (ANBRE17), Seoul, Korea, 28 August – 1 September, 2017.
- 45) Talal AL-Bazali "The Impact of Water Content and Ionic Diffusion on the Geo-Mechanical Stability of Shale" presented at the international field exploration and development conference (IFEDC 2016), 11-12 August, 2016, Beijing, China.
- 46) AL-Bazali, T. (2016). THE IMPACT OF TEMPERATURE ON THE THRESHOLD CAPILLARY PRESSURE OF FINE GRAINED SHALES. The International Journal of Science, Engineering and Technology, 10(2):

219-227.

- 47) Talal AL-Bazali "ON THE GEO- MECHANICAL STABILITY OF SHALE: THE IMPACT OF WATER CONTENT AND IONIC DIFFUSION" presented at the International Conference on Power and Mechanical Engineering (ICPME2015), February 8-9, 2015, Shanghai, China.
- 48) Talal AL-Bazali "The impact of Temperature on the threshold capillary pressure of fine-grained shales" presented at the 2nd International Conference on Geology and Geophysics (ICGG 2013), Sanya, China, Dec 3 to Dec5, 2013.
- 49) Talal AL-Bazali "THE IMPACT OF WATER CONTENT AND IONIC DIFFUSION ON THE UNIAXIAL COMPRESSIVE STRENGTH OF SHALE" Egyptian Journal of Petroleum, Volume 22, Issue 2, Pages 249-260, December 2013.
- 50) Talal AL-Bazali "A Novel Experimental Technique to Monitor the Time Dependent Water and Ions Uptake when Shale Interacts with Aqueous Solutions" Journal of Rock Mechanics and Rock Engineering, Volume 46, Number 5, Pages 1145-1156, 2013.
- 51) Talal AL-Bazali " Estimating Permeability in Tight Rocks Using Capillary Breakthrough Pressure Measurements: Modification to Kozeny Equation" SPE 162156 presented at the 2012 SPE Canadian Unconventional Resources Conference, 30 October – 1 November, 2012. Calgary, Canada.
- 52) Talal M. AL-Bazali "The consequences of using concentrated salt solutions for mitigating wellbore instability in shales" Journal of Petroleum Science and Engineering, 80 (2011) 94–101.
- 53) Talal M. AL-Bazali "Role of Anions on Shale Stability: The Neglected Phenomenon" International Journal of Special Topics & Reviews in Porous Media. Volume 02, issue 3: 237-247, (2011).
- 54) T. M. AL-BAZALI, S. AL-MUDH'HI AND M. E. CHENEVERT "An Experimental Investigation of the Impact of Diffusion Osmosis and Chemical Osmosis on the Stability of Shales" *Journal of Petroleum Science and Technology*, 29:312–323, 2011.
- 55) Talal M AL-Bazali, Jianguo Zhang, Martin E Chenevert and Mukul M Sharma" An Experimental Investigation on the Impact of Capillary Pressure, Diffusion Osmosis, and Chemical Osmosis on the Stability and Reservoir Hydrocarbon Capacity of Shales" SPE 121451, presented at the 2009 SPE Offshore Europe Oil & Gas Conference & Exhibition held in Aberdeen, UK, 8-11 September 2009.
- 56) Talal M AL-Bazali, Jianguo Zhang, Martin E Chenevert and Mukul M Sharma" Estimating the Reservoir Hydrocarbon Capacity through Measurement of the Minimum Capillary Entry Pressure of Shale Cap-Rocks" SPE 121450, presented at the 2009 SPE Annual Technical Conference and Exhibition held in New Orleans Louisiana, USA, 4-7 October 2009.
- 57) Talal Al-Bazali, Jianguo Zhang, Chris Wolfe, Martin E Chenevert and Mukul M Sharma "Wellbore Instability of Directional Wells in Laminated and Naturally Fractured Shales". Journal of Porous Media Volume 12 (2) 119-130 (2009).
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