BERNA HASÇAKIR

Associate Professor

Flotek Industries, Inc. Career Development Professor

3116 TAMU- 401N College Station, TX, 77843-3116, Phone: +1 979 845 6614,

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EDUCATION

| 2008-2010 | Postdoctoral Scholar in Energy Resources Engineering, Stanford University, Stanford, CA, USA Research Area: "Visualizing In-Situ Combustion Dynamics with X-Ray Computed Tomography" and "Simulation of Cyclic Steam Injection with Temperature Induced Wettability Change" Advisor: Dr. Anthony R. Kovscek, kovscek@stanford.edu, Phone: +1 650 723 1218 |
|-----------|--|
| 2003-2008 | Ph.D. in Petroleum and Natural Gas Engineering, Middle East Technical University, Ankara, TURKEY Dissertation : "Investigation of Productivity of Heavy Oil Carbonates and Oil Shales Using Electrical Heating Methods" LINK Advisor: Dr. Serhat Akin, serhat@metu.edu.tr , Phone: +90 312 210 4892 |
| 2007-2008 | Visiting Ph.D. Student in Petroleum Engineering, University of Alberta, Edmonton, AB, CANADA (6 months) Advisor: Dr. Tayfun Babadagli, tayfun@ualberta.ca , Phone: +1 780 492 9626 |
| 2001-2003 | M.Sc. in Environmental Technologies, Dokuz Eylul University, Izmir, TURKEY MSc Thesis: "Utilization of Natural Polyelectrolyte in Wastewater Treatment" LINK Advisor: Dr. Deniz Dolgen, deniz.dolgen@deu.edu.tr, Phone: +90 232 301 7139 |
| 1996-2001 | B.Sc. in Environmental Engineering, Dokuz Eylul University, Izmir, TURKEY BSc Thesis: "Nutrient Removal in Sequential Batch Processing Reactor" Advisor: Dr. Necdet Alpaslan, necdet.alpaslan@deu.edu.tr, Phone: +90 232 301 7100 |

POSITIONS

| 09/2018-Present | Associate Professor Texas A&M University, Petroleum Engineering Department, College Station, TX, USA |
|-----------------|--|
| 04/2012-08/2018 | <u>Assistant Professor</u> Texas A&M University, Petroleum Engineering Department, College Station, TX, USA |
| 05/2011-04/2012 | Senior Heavy Oil Reservoir Engineer, Schlumberger PCE, Bogota, Colombia |
| 06/2011-12/2011 | Consultant on Thermal EOR Methods, Pacific Rubiales Energy, Bogota, Colombia |
| 01/2011-03/2011 | Reservoir Simulation Engineer, Schlumberger AbTc, Abingdon, UK |
| 11/2010-05/2011 | Reservoir Simulation Engineer, Schlumberger PTT, Puerto La Cruz, Venezuela |
| 10/2008-06/2010 | Postdoctoral Researcher, Stanford University, Energy Resources Eng. Department, Stanford, CA, USA |
| 09/2008-12/2008 | Research and Teaching Assistant, Graduate School of Natural and Applied Sciences, Inonu University, Malatya, TURKEY |
| 01/2004-09/2008 | Research and Teaching Assistant, Petroleum and Natural Gas Engineering Department, Middle East Technical University, Ankara, TURKEY |
| 08/2005-08/2007 | <u>Project Assistant</u> , Supported by BAP (Scientific Research Projects) and TUBİTAK (The Scientific & Technological Research Council of Turkey), METU, Ankara, TURKEY |
| 02/2003-08/2003 | Environmental Engineer, Harmandali Waste Disposal Site, Izmir, TURKEY |
| 09/2001-08/2003 | <u>Project Assistant</u> , Center for Environmental Research and Development, Dokuz Eylul University (ÇEVMER), Izmir, TURKEY |
| 09/2001-06/2003 | <u>Computer Instructor</u> , Altin Computer Course, Izmir, TURKEY and Mimar Kemalettin Elementary School, Izmir, TURKEY |

TRAINING & NETWORKING

A. SHORT COURSES AND INTERNSHIPS (* Teaching Related Training)

| May 1-2, 2019* | Transformational Teaching and Learning Conference "Active and Inclusive Engagement", Texas A&M |
|-------------------|---|
| | University |
| April 18, 2019* | Articulating the Value of Diversity in Our Courses and Disciplines, Center for Teaching Excellence, Texas A&M University |
| March 26, 2019* | Visionary Women: Champions of Peace & Nonviolence, 2019 Women's Research on Women, Texas A&M |
| • | University, Education & Human Development, Education Leadership Research Center |
| March 20, 2019* | Suicide Prevention Gatekeeper Training, QPR (Question Persuade Refer), Student Counseling Service, Division |
| | of Student Affairs, Texas A&M University |
| March 19, 2019* | Digital Playgrounds as Learning Spaces: Leveraging Digital Games and Gaming Approaches for Engagement, |
| | Center for Teaching Excellence, Texas A&M University |
| March 6, 2019* | Aggie Disability Awareness Workshop, Education & Human Development, Texas A&M University |
| Feb. 26, 2019* | Practice, Practice, Practice: Designing Meaningful In-Class Learning Experiences for Students, Center for |
| | Teaching Excellence, Texas A&M University |
| Feb. 20, 2019* | <u>Promoting Classroom Climate: Laying the Social Groundwork for Better Learning</u> , Center for Teaching Excellence, Texas A&M University |
| June 2-3, 2018* | <u>Program Evaluator Candidate Training</u> , ABET (Accreditation Board for Engineering and Technology, Inc.), Baltimore, Maryland, USA |
| Oct. 17, 2017* | <u>Creating Inclusive Classrooms for LGBTQ+ Students</u> , Center for Teaching Excellence, Texas A&M University |
| April 18, 2017* | Faculty Feedback – It Matters What you Say, Women in Engineering (WE) Program-Faculty Focus, Texas A&M |
| | University. |
| Mar. 23, 2017* | Increasing Diversity within YOUR Faculty Pool, Women in Engineering (WE) Program-Faculty Focus, Texas |
| | A&M University. |
| Feb. 2, 2017* | <u>Discussing Growth Mindset</u> , Women in Engineering (WE) Program-Faculty Focus, Texas A&M University. |
| Nov. 29, 2016* | <u>The Seventh Pedagogy Project</u> , Supporting Transformational Learning, Disciplines Related to Technology- Enabled and Distance Education Programs, Texas A&M University |
| Nov. 22, 2016* | <u>The Sixth Pedagogy Project</u> , Supporting Transformational Learning, Disciplines Related to Graduate and Professional Programs, Texas A&M University |
| Oct. 27, 2016* | <u>The Second Pedagogy Project</u> , Supporting Transformational Learning, Disciplines Related to Mathematics and the Physical and Earth Sciences, Texas A&M University |
| August 4, 2015* | FIT A Basic Guide to Digital Multimedia Production for Teaching and Learning 8-4, Center for Teaching |
| | Excellence, Texas A&M University. |
| July 9, 2015* | Working with Students with Disabilities 7-9, Center for Teaching Excellence, Texas A&M University |
| June 25, 2015* | Lecture Well 6-25, Center for Teaching Excellence, Texas A&M University |
| April 28, 2015* | Course Design Series Session III 4/28, Center for Teaching Excellence, Texas A&M University |
| April 23, 2015* | Diversity & Global Learning 4/23, Center for Teaching Excellence, Texas A&M University |
| April 21, 2015* | Course Design Series Session II 4/21, Center for Teaching Excellence, Texas A&M University |
| April 14, 2015* | Course Design Series Session I 14/14, Center for Teaching Excellence, Texas A&M University |
| April 13, 2015* | ADVANCE-STRIDE (The Strategies and Tactics for Recruiting to Improve Diversity and Excellence) Workshop |
| & Feb 23, 2015 | focuses on best practices for faculty searches such as inclusive advertising, reducing bias in the evaluation process, and hosting effective candidate visits |
| Mar 30-31, 2015* | Roadmap for a Successful Academic Career Workshop, Advance Center, Texas A&M University |
| & April 6-8, 2014 | |
| March 31, 2014* | Attention Faculty in STEM Disciplines: Do you want to reinvigorate your teaching but don't have the time or |
| | resources? Would you like to enhance the professional development of your graduate students and post-doctoral fellows with easy-to-access programs on campus?, CIRTL, Center for Teaching Excellence, and Office of Graduate and Professional Studies, Texas A&M University |
| February 2013* | Fair Use: Using Copyrighted Material in Your Thesis/Dissertation and Other Research Works - Copyright and |

Publishing Series, Texas A&M University

February 2013* Creative Commons Licenses: A Prerequisite for Publishing Your Research via Open Access, Texas A&M

University

January 2013* <u>Kick Start Your Teaching</u> – Effectiveness and Efficiency, Texas A&M University (During Spring 2013)

December 2012* <u>Writing with P.O.W.E.R!</u> A Writing Productivity Program for New Faculty, Texas A&M University

March 2011 Petrel Reservoir Engineering, Schlumberger, Calgary, AB, CANADA (3 days)

March 2011 Oil Field Manager (OFM) Fundamentals and Forecast Analysis, Schlumberger, Crawley, UK (3 days)

February 2011 Eclipse Thermal, Schlumberger, Abingdon, UK (5 days)

Summer of 2006 European School of English, Paceville, MALTA (3 weeks)

Summer of 2006 International Summer School of Geothermal Exploration, Prospecting, and Reservoir Engineering Monitoring,

Izmir, TURKEY (2 weeks)

Summer of 2000 Summer Practice in Ministry of Environment, Office practice - Head Office, Antalya, TURKEY (1 month)

Summer of 1998 Summer Practice at Dokuz Eylul University, Field practice; Topography, Izmir, TURKEY (2 weeks)

2002-2003 Intern at <u>Kaplamin Corrugated Packaging Industry</u>, Izmir, TURKEY (1 year)

B. AFFILIATIONS

5. Society of Petroleum Engineers (SPE), since 2004 LINK

- 4. American Chemical Society (ACS), since 2015 LINK
- 3. The Combustion Institute, since 2015 LINK
- 2. American Association of University Professors (AAUP), since 2014 LINK
- 1. Chamber of Turkish Environmental Engineers, since 2002 LINK

C. AWARDS

- 12. Flotek Industries, Inc. Career Development Professor, 2019 for three years
- 11. Distinguished Member of Society of Petroleum Engineers (SPE), 2018 LINK
- 10. Stephen A. Holditch Faculty Fellow, Starting from November 1, 2015 for three years LINK
- 9. SPE Innovative Teaching Award, SPE Faculty Awards, 2015. Award Amount: 10,000 USD LINK
- 8. SPE Faculty Enhancement Travel Grant for the Gulf Coast North America Region, 2015. Award Amount: 2,000 USD LINK
- 7. Top 10 Associate Editors, Journal of Petroleum Science and Engineering, Elsevier, 2014 LINK
- 6. SPE Junior Faculty Research Grant, SPE Faculty Awards, 2014. Award Amount: 100,000 USD LINK
- 5. SPE Faculty Enhancement Travel Grant for the Gulf Coast North America Region, 2014. Award Amount: 2,000 USD LINK
- 4. Postdoctoral Scholarship, SUPRI A, Energy Resources Engineering, Stanford University, CA, USA (2008-2010) LINK
- 3. Clay Mineral Society Travel Grant to attend Bridging Clays Conference, FRANCE (2006) LINK
- 2. The Scientific & Technological Research Council of Turkey Travel Grant to attend the 1st WHOC, CHINA (2006) LINK
- 1. The Scientific & Technological Research Council of Turkey Visiting Researcher Grant, six months, CANADA (2007-2008) LINK

D. INVITED SPEAKER & PANELIST

- 22. **Graduate Seminar Speaker**: Who to Blame for Climate Change, *Texas A&M University, Petroleum Engineering Department*, 5 February 2019.
- 21. **Graduate Seminar Speaker**: Contribution of Oil and Gas Industry to Global Warming, *Texas A&M University, Qatar Campus Doha Qatar*, 2 December 2018.
- Graduate Seminar Speaker: Factors Affecting Asphaltenes Stability, Petroleum and Geosystem Engineering Department, UT at Austin, 26 November 2018.
- 19. **Webinar**: Factors Affecting Asphaltenes Stability, *Schlumberger Heavy Oil Special Interest Group*, October 19, 2017, Mexico City, Mexico. 55 people were attended.
- 18. **Workshop Leader**: Enhancing the proper management and treatment of produced water for reinjection purposes, *Unconventional Completions Conference*, September 18-20, 2017, Houston, Texas, USA.
- 17. **Seminar**: The Effectiveness of Microwave Heating for High Asphaltenes Content Oil Reservoirs, 7 April 2017, Chevron Cooperation, Richmond Technology Center, Richmond, California, USA.
- 16. **Guest Lecturer**: Enhanced Oil Recovery, *PETE 402-Section 502-503: Integrated Asset Development,* 14 March 2017, College Station, Texas.
- 15. Panelist for New Faculty Perspectives, New Faculty Orientation, the Office of the Dean of Faculties, Texas A&M University, 22 August 2016.

- 14. Chevron Lunch and Learn: Solvent-Steam Processes: Benefits and Drawbacks, 20 July 2016, RPE Chevron, Houston, Texas, USA.
- 13. Plenary Lecture: The Impact of Asphaltenes on Thermal EOR Performance, 30 June 2016, Thermal EOR International Workshop, "Thermal Methods for Enhanced Oil Recovery: Laboratory Testing, Simulation and Oilfields Applications", 28 June-1 July 2016, Kazan, Russia. LINK
- 12. Graduate Seminar: Fundamentals of Miscible Flooding, 28 June 2016, Petroleum Engineering Department, Kazan Federal University, Kazan, Russia. LINK
- 11. Seminar: Hydrocarbon Extraction from Unconventional Reservoirs, Centro de Investigación en Química Aplicada (CIQA), 4 December 2015 in Saltillo Coahuila, México. LINK
- 10. Panelist for WE LEAD: Faculty Insight Luncheon, Texas A&M University, Women in Engineering, 28 October 2015. LINK
- 9. Panelist in SPE Heavy Oil Workshop: Lifting Recovery to the Next Level, In-situ electrical heating stimulation for heavy oil recovery, 22-23 September 2015 in Budapest, Hungary.
- 8. Seminar: Solvent-Steam Processes for Heavy Oil and bitumen Extraction: International Science and Practice Conference "Specific of Survey and Exploration of Alternative Hydrocarbon Fields", Kazan, Republic of Tatarstan, Russia.
- 7. Panelist for New Faculty Perspectives, New Faculty Orientation, the Office of the Dean of Faculties, Texas A&M University, 24 August 2015.
- 6. Graduate Seminar: Advanced Recovery Techniques for Unconventional Oil Resources, 28 October 2014, Process Engineering Department, Memorial University of Newfoundland and Labrador, Canada.
- 5. Undergraduate Seminar, Reservoir Fluids-Dry Gases, 27 October 2014, Mechanical Engineering Department, Memorial University of Newfoundland and Labrador, Canada.
- 4. Seminar: Oil Shale extraction with RF heating, 15 March 2013, SLAC-Stanford National Accelerator Laboratory, Stanford, CA,
- 3. Seminar: Oil Shale extraction with RF heating, 15 March 2013, CPI-Communications & Power Industries, Palo Alto, CA, USA.
- 2. Seminar: Hydrogen Sulfide problem during steam injection processes, 27 March 2013, Ecopetrol, Bogota, Colombia.
- 1. Seminar: Complexity behind field-scale modeling of in-situ combustion, 15 February 2011, Schlumberger, Abingdon, UK.

E. ATTENDED CONFERENCES-WORKSHOP-SYMPOSIUM (SPE: Society of Petroleum Engineers, ACS: American Chemical Society, ATCE: Annual Technical Conference and Exhibition, HOLA: Heavy Oil Latin America, * to be attended)

Mar 26-27, 2015 Center for Petroleum and Geosystems, Frontiers in Subsurface Energy Symposium, Austin, TX, USA SPE Heavy and Extra Heavy Oil Conference-Latin America, Medellin, Colombia.

Sep 24-26, 2014

June 10-12, 2014 SPE Heavy Oil Conference, Calgary, Alberta, Canada.

April 16-18, 2014 SPE Western North America and Rock Mountain Joint Regional Meeting, Denver, Colorado, USA.

March 20, 2014 Dean of Faculties - Demystifying the Tenure and Promotion Process, Texas A&M University

Oct 2012 SPE ATCE 2012, San Antonio, Texas, USA.

Before A&M

Nov 2011 SPE ATCE 2011, Denver, USA

Aug 2011 SPE History Matching: Field Experiences and Lessons Learned, Cartagena, Colombia

Aug 2011 HOLA, Heavy Oil Latin America Congress, Bogotá, COLOMBIA

Sep 2010 SPE ATCE 2010, Florence, ITALY

May 2010SPE Western Regional Meeting, Anaheim, California, USAMar 2009SPE Western Regional Meeting, San Jose, California, USANov 2006First World Heavy Oil Conference-WHOC, Beijing, CHINASep 2006Fourth Mediterranean Clay Meeting, Ankara, TURKEY

June 2006 Bridging Clays, d'Oléron, FRANCE

Nov 2005 6th National Environmental Engineering Conference, Istanbul, TURKEY

Sep 2005 12th National Clay Conference, Van, TURKEY

May 2005 15th international petroleum conference of Turkey, Ankara, TURKEY

April 2005 World Geothermal Congress, Antalya, TURKEY

June 2004 9th Industrial Contamination Congress, Istanbul, TURKEY

F. MEDIA COVERAGE

14. research @Texas A&M, Solid crude oil: Researchers explore how to get clogged wells moving. LINK

- 13. Texas A&M University Engineering News, Solving the solid crude oil problem. LINK
- 12. Journal of Petroleum Technology (JPT), SPE Announces 2018 International Award Recipients, July 06, 2018. LINK
- 11. Catching the Wave, New Technology Magazine, 09/28/2015 LINK
- 10. Undergraduate Research: Find Your Fit!, Honors and Undergraduate Research, Texas A&M University, 09/04/2015 LINK
- 9. Thermal EOR, Control Engineering, Oil & Gas Engineering, 12/23/2014 LINK
- 8. Thermal EOR, <u>Upstream Technology</u>, <u>The bimonthly magazine for oil& gas innovators</u>, Issue 4-2014 <u>LINK</u>
- 7. Exploring new methods of thermal recovery, Phys & Org, Aug. 13, 2014 LINK
- 6. Berna Hascakir explores new methods of thermal recovery, <u>College of Engineering</u>, <u>Texas A&M University</u>, Aug. 12, 2014 <u>LINK</u>
 <u>Before A&M</u>
- 5. Research from Middle East Technical University yields new findings on hydrologic engineering, <u>Energy Weekly News</u>, Aug. 27, 2010 LINK
- 4. Study Data from Stanford University Update Knowledge of Oil and Gas Research, Energy Weekly News, Nov. 21, 2008 LINK
- 3. Proposed Extraction Process may have economic and environmental benefits, Science Daily, Sep. 24, 2008 LINK
- 2. New hope for tapping vast domestic reserves of oil shale, Phys & Org, Sep. 22, 2008 LINK
- 1. Researchers Develop Process That Could Result in Higher Yield from Oil Shale, Green Car Congress, Sep. 22, 2008 LINK

RESEARCH

A. PROJECTS/FUNDING (Total excluding start-up 1,654,745.72 USD, Hascakir value excluding start-up 995,435.49 USD)

- 24. Feasibility of in-situ combustion for underground energy generation, planned to be submitted to ARPA-E through collaboration with Pioneer Energy Resources and Stanford University, <u>Award</u>: **300,000 USD**. <u>Project Duration</u>: Spring 2019-Fall 2021. <u>Pending and not included in total dollar amount</u>
- 23. Radio Frequency Heating for Oil Contaminated Soil Remediation, Chevron, <u>Award</u>: **40,000 USD**. <u>Project Duration</u>: Spring 2019-2020. <u>Pending and not included in total dollar amount</u>
- 22. Phase Behavior Analysis of Delaware Basin's Production Trends, submitted to Core Lab through Berg-Hughes Center, <u>Award</u>: **200,000 USD**. <u>Project Duration</u>: Summer 2018-September 2020. <u>Pending and not included in total dollar amount</u>
- 21. Laboratory testing of water imbibition in shale samples during soaking period, submitted to Core Lab, <u>Award</u>: **200,000 USD**. <u>Project Duration</u>: January 2017-September 2019. <u>Pending and not included in total dollar amount</u>
- 20. Impact of desiccation on generated oil quality, submitted to Core Lab, <u>Award</u>: **200,000 USD**. <u>Project Duration</u>: January 2017-September 2019. <u>Pending and not included in total dollar amount</u>
- 19. Determination of In-Situ Combustion Field Parameters for Escondido Oil and Formation, <u>Sponsor</u>: Activa Resources LLC. <u>Award</u>: **20,174 USD**, <u>Project Duration</u>: March 2017- June 2017. <u>Pending and not included in total dollar amount</u>
- 18. Donation: Carbon Chain Technologies, UK. 10,000 USD.
- 17. Feasibility of Steam Flooding in Edwards County, TX. Sponsor: ECB, LLC. Award: 30,000 USD. Project Duration: October 2017–March 2018.
- 16. Characterization of hydraulic fracturing produced water with high salinity content, <u>Sponsor</u>: Southwest through Crisman Institute for Petroleum Research. Award: **100,000 USD**. Project Duration: September 2017-September 2019.
- 15. Enhanced Oil Recovery Utilizing the Piezoelectric or Inverse Piezoelectric Method, <u>Sponsor</u>: Litezon LLC. <u>Award</u>: **100,000 USD**. Project Duration: April 2017- April 2018.
- 14. The Effect of Asphaltenes Precipitant and an Environmentally Friendly Solvent on Solvent-Steam Performance, <u>Sponsor</u>: Chevron, <u>Award</u>: **20,000 USD**. <u>Project Duration</u>: March 2017- March 2018.
- 13. Asphaltenes Stability Determination, Sponsor: Clariant, PI: Berna Hascakir, Award: 30,000 USD. Project Duration: March 2017.
- 12. Second Renewal for Undergraduate Research in Energy and Propulsion for Summer 2017, Sponsor: National Science Foundation, Award Number: 1560155-NSF. PI: Eric L. Petersen with 8 Co-PI, Total Award: 443,921 USD. Project Duration: Summer 2017. Not included in total dollar amount LINK
- 11. Solid and Soluble Products of Engineered Water/Rock Interactions in Eagle Ford Group Chemofacies, <u>Sponsor</u>: Berg-Hughes Center for Petroleum and Sedimentary Systems. Co-PI: Dr. Mike Tice. <u>Award</u>: **204,913 USD**. <u>Project Duration</u>: January 2016 for 3 years.
- 10. Stephen A. Holditch Faculty Fellow, November 2015-November 2018. 1,000 USD/month; 36,000 USD/3 years. November 2015-November 2018. 1,000 USD/month; 36,000 USD/3 years. November 2015-November 2018. 1,000 USD/month; 36,000 USD/3 years. November 2015-November 2018. 1,000 USD/month; 36,000 USD/3 years. November 2015-November 2018. 1,000 USD/month; 36,000 USD/3 years. November 2015-November 2018. November 2015-November 2018. November 2015-November 2018. November 2018. <a href="
- 9. Effect of Solvent Dose and Type on Steam Assisted Gravity Drainage Performance, <u>Sponsor</u>: Chevron, <u>Award</u>: **20,000 USD**, <u>Project Duration</u>: January 2016- January 2017.
- 8. Support for two graduate students over summer 2015, <u>Sponsor</u>: Crisman Institute for Petroleum Research, <u>Award</u>: **25,000 USD** <u>Project Duration</u>: Summer 2015.
- 7. Field-Scale Simulation of In-Situ Combustion, <u>Sponsor</u>: Skoltech University, PI: Berna Hascakir, Co-PI: John Killough, <u>Total Award</u>: 610,984.72 USD, Hascakir's contribution: **100,201.49 USD** (16.4%), <u>Project Duration</u>: 2014- 2015.
- 6. Effect of Solvent Dose and Type on Steam Flooding Performance, <u>Sponsor</u>: Chevron. <u>Award</u>: **20,000 USD**. <u>Project Duration</u>: January 2015- January 2016.
- 5. <u>SPE Junior Faculty Research Grant</u>, The role of saturates, aromatics, resins, and asphaltenes (SARA) fractions of crude oils in the mechanism of asphaltenes destabilization. <u>Award</u>: **100,000 USD**. <u>Project Duration</u>: January 2015-January 2017.
- 4. Emulsion Control and Prevention for In-Situ Combustion, <u>Sponsor</u>: Pacific Rubiales Energy. <u>Award</u>: **150,000 USD**. <u>Project Duration</u>: November 2013-November 2014.
- 3. Donation: Cenovus FCCL Ltd., 99,000 USD, October 2013.
- 2. Physicochemical Interactions of Shale with Injected Water-Based Fluids, <u>Sponsor</u>: Crisman Institute for Petroleum Research, PI: Robert H. Lane, Co-PI: Berna Hascakir, <u>Award</u>: **137,555 USD**. <u>Project Duration</u>: September 2013- September 2015.
- 1. Texas A&M University, Engineering Faculty, start-up fund to be used in 2012-2014, <u>250,000 USD</u>. <u>Not included in total dollar amount</u>

B. COLLABORATIONS

- 13. Dr. Cesar Ovalles & Ian P. Benson Chevron Corporation, Richmond, California, USA LINK
- 12. Dr. Mike Tice, Geology and Geophysics Department, Texas A&M University, College Station, TX, USA LINK
- 11. Dr. Waruna Kulatilaka, Mechanical Engineering, Texas A&M University, College Station, TX, USA LINK
- 10. Dr. Eric Petersen, Mechanical Engineering, Texas A&M University, College Station, TX, USA LINK
- 9. Dr. Anthony H Knap, Geochemical and Environmental Research Group, Texas A&M University, College Station, TX, USA LINK
- 8. Dr. Claude St Thomas and Dr. Enrique Javier Jimenez, Centro de Investigación en Química Aplicada, Saltillo, Mexico LINK
- 7. Dr. Suresh Pillai, National Center for Electron Beam Research, Texas A&M University, College Station, TX, USA LINK
- 6. Dr. Hisham Nasr-El-Din, Dr. John Killough, Dr. Robert Lane, Dr. Maria Barrufet, Dr. Sam Noynaert, <u>Petroleum Engineering</u>, <u>Texas</u> A&M University, College Station, TX, USA LINK
- 5. Dr. Carlos Dengo, Berg-Hughes Center, Geosciences Texas A&M University, College Station, TX, USA LINK
- 4. Dr. Ethan Grossman, Geology and Geophysics Department, Texas A&M University, College Station, TX, USA LINK
- 3. Dr. Ian Donald Gates, Chemical and Petroleum Engineering, University of Calgary, Calgary, AB, Canada LINK
- 2. Dr. Serhat Akin, Petroleum and Natural Gas Eng. Department, Middle East Technical University, Ankara, TURKEY LINK
- 1. SLAC National Accelerator Laboratory, Menlo Park, California, USA LINK

C. PUBLICATIONS (*indicates MS, MEng, or PhD level students, **indicates Undergraduate level students, † indicates faculty collaborators, † indicates industry collaborators) (**Quartile**: Q1 means highest values and Q4 lowest values, <u>IF</u>: Impact Factor, <u>SJR</u>: <u>SCImago Journal Rank</u>, <u>H</u>: H index- Journal's number of articles (h) that have received at least h citations over the whole period.)

| Year | Number of | | | |
|------------------|----------------------------|------------------------|-------------------------|--|
| rear | Peer Reviewed Publications | Conference Proceedings | Google Scholar Citation | |
| 2019 | | 4 | 123 | |
| 2018-2013 | 23 | 73 | 836 | |
| At A&M Total | 23 | 77 | 836 | |
| Before A&M Total | 7 | 20 | 58 | |
| Total | 30 | 97 | 1010 | |

C.1. Patents

1. **Hascakir, B.**, Punase, A.*, Stability Determination of Asphaltenes through Dielectric Constant Measurements of Polar Oil Fractions, *US20180024084A1 - Application*, 2018-01-25, <u>licensed by Clariant Corporation in November 2017</u>. <u>LINK</u>

C.2. Peer Reviewed Publications

- 30. **Hascakir, B.**, Editorial: Introduction to Thermal Enhanced Oil Recovery (EOR) special issue, Journal of Petroleum Science and Engineering, SI:Thermal EOR, 171 (2018) 1292-1293. **Q1**, **IF: 1.655**, **SJR: 4902, H: 61**. LINK
- 29. Banerjee, S.*, **Hascakir, B.**, Flow Control Devices in SAGD Completion Design: Enhanced Heavy Oil/ Bitumen Recovery through Improved Thermal Efficiency, Journal of Petroleum Science and Engineering, SI:Thermal EOR, Just Accepted. Q1, IF: 1.655, SJR: 4902, H: 61. LINK
- 28. Ismail, N.*, Seber, E.**, **Hascakir, B.**, Water and Aromatics Fraction Interaction at Elevated Temperature and Their Impact on Reaction Kinetics of In-situ Combustion, Journal of Petroleum Science and Engineering, SI:Thermal EOR, Just Accepted. Q1, IF: 1.655, SJR: 4902, H: 61. <u>LINK</u>
- 27. Prakoso, A.*, Punase, A.*, Rogel, E.‡, Ovalles, C.‡, **Hascakir, B.**, Effect of Asphaltene Characteristics on Its Solubility and Overall Stability, Energy & Fuels, Just Accepted. Q1, IF: 1.655, SJR: 4902, H: 61.Q1, IF: 2.835, SJR: 2353, H: 123. LINK
- 26. Kartal O. E.+, Akin S.+, **Hascakir, B.**, Karaca H.+, Liquefaction of Nigde-Ulukisla Oil Shale: The Effects of Process Parameters on the Conversion of Liquefaction Products, *Oil Shale*, 34-4 (2017), 336-353. Q2, **SJR: 9242, H: 22.** LINK
- 25. Banerjee, S.*, **Hascakir**, **B.**, Design of Flow Control Devices in Steam Assisted Gravity Drainage (SAGD) Completion, *Journal of Petroleum Exploration and Production Technology, Just Accepted*. **Q2**, **IF: 1.099**, **SJR: 11022**, **H: 9. LINK**
- 24. Banerjee, S.*, Abdulsattar, Z.R.*, Agim, K.*, Lane, R.H. †, **Hascakir, B.**, Adsorption Mechanism of the Water-Based Fracturing Fluids on Shale Surface, *Petroleum*, 3 (2017) 384-390. **New Journal not yet appeared in rankings.** <u>LINK</u>
- 23. **Hascakir, B.**, Editorial: Introduction to Thermal Enhanced Oil Recovery (EOR) special issue, Journal of Petroleum Science and Engineering, SI:Thermal EOR, 154 (2017) 438-411. **Q1**, **IF: 1.655**, **SJR: 4902, H: 61**. **LINK**

- 22. Aleksandrov, D.*, Kudryavtsev, P.*, **Hascakir, B.**, Variations in In-Situ Combustion Performance due to Fracture Orientation, *Journal of Petroleum Science and Engineering, Thermal EOR Special Issue*, 154 (2017) 488-494. **Q1**, <u>IF: 1.655</u>, **SJR: 4902, H: 61**. LINK
- 21. Kar, T.*, Hascakir, B., In-Situ Kerogen Extraction via Combustion and Pyrolysis *Journal of Petroleum Science and Engineering, Thermal EOR Special Issue*, 154 (2017) 488-494. **Q1**, IF: 1.655, SJR: 4902, H: 61. LINK
- 20. Prakoso, A.*, Punase, A.*, **Hascakir, B.**, A Mechanistic Understanding of Asphaltene Precipitation from Varying Saturate Concentration Perspective, *SPE Production & Operations*, 2017, 32(01), 86-98, SPE-177280-PA. Q1, <u>IF: 0.818</u>, SJR: 5341, H: 31. LINK
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- 17. Punase, A.*, **Hascakir, B.**, Stability Determination of Asphaltenes through Dielectric Constant Measurements of Polar Oil Fractions, *Energy and Fuels*, 2017, 31(1), 65-77. Q1, <u>IF: 2.835</u>, SJR: 2353, H: 123. <u>LINK</u>
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- 5. **Hascakir, B.**, Babadagli, T.[†], Akin, S.[†], Field Scale Analysis of Heavy-Oil Recovery by Electrical Heating, *SPE Reservoir Evaluation* & Engineering, 13-1, 131-142, 2010, SPE 117669-PA. Q1, IF: 1.767, SJR: 3589, H: 47. LINK
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- 3. Hascakir, B., Acar, C., Akin, S.[†], Microwave Assisted Heavy Oil Production: An Experimental Approach, *Energy and Fuels*, 23(12), 6033-6039, 2009. Q1, IF: 2.835, SJR: 2353, H: 123. LINK
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- 1. Hascakir, B., Dolgen, D.[†], Utilization of Clay Minerals in Wastewater Treatment: Organic Matter Removal with Kaolinite, *Ekoloji*, 66 (6), 47-54, 2008 (Turkish). Q3, IF: 0.708, SJR: 11677, H: 11. LINK
- C.3. Peer Reviewed Publications under review or in preparation stage (experimental studies finalized, paper writing in progress)

- 7. Zhang, L.*, Tice, M.†, Marcantonio, F.†, **Hascakir, B.**, Solid and Soluble Products of Engineered Water/Rock Interactions in Eagle Ford Group Chemofacies, planned to be submitted to *SPE Journal*.
- 6. Ismail, N.*, Hascakir, B., The Analysis of In-situ Combustion Performance in the Presence of Clay Catalyst, submitted to Fuel.
- 5. Coelho, R. *, Hascakir, B., CO₂ Storage in High Viscosity-Low API Gravity Oil Reservoir, plan to be submitted to Langmuir.
- 4. Hascakir, B., Feasibility of Air Fracturing, plan to be submitted to Journal of Petroleum Science and Engineering.
- 3. Kar, T.*, **Hascakir B.**, Effect of Clay Type in Water-in-Oil Emulsion Formation Mechanism, plan be submitted to *Advances in Colloid and Interface Science*.
- 2. Ismail, N.*, Klock, K.**, Hascakir, B., Simplified reaction kinetics for in-situ combustion, planned to be submitted to Fuel.
- 1. Hascakir, B., Kovscek A.[†], Workflow for modeling of in-situ combustion, planned to be submitted to SPE Journal.
- C.4. Conferences-Workshops-Seminars (SPE: Society of Petroleum Engineers, ACS: American Chemical Society, ATCE: Annual Technical Conference and Exhibition, AIChE: American Institute of Chemical Engineers, HOLA: Heavy Oil Latin America)

Paper links are activated on the first day of the conferences.

- 97. Alshaikh, M.*, Lee, Y.S.**, **Hascakir, B.**, Anionic Surfactant and Heavy Oil Interaction during Surfactant-Steam Process, *SPE Western Regional Meeting*, 23-26 April 2019, San Jose, California, USA, SPE-195254-MS. <u>LINK</u>
- 96. Zhang, L.*, Tice, M.[†], **Hascakir, B.**, The Impact of Re-injection of Flowback Fluids on Formation Damage of Marcellus Shale, SPE Western Regional Meeting, 23-26 April 2019, San Jose, California, USA, SPE-195336-MS. LINK
- 95. Liao, H.*, Morte, M. *, **Hascakir, B.**, Determination of the Effectiveness of Microwave Heating for Heavy Oil Extraction, *SPE Western Regional Meeting*, 23-26 April 2019, San Jose, California, USA, SPE-195263-MS. <u>LINK</u>
- 94. Ng, A.*, Vishnumolakala, N.*, **Hascakir, B.**, The Use of Asphaltenes Precipitants and Environmentally Friendly Solvents during Solvent-Steam Processes, SPE Western Regional Meeting, 23-26 April 2019, San Jose, California, USA, SPE-195316-MS. LINK
- 93. Lancon, O.*, Hascakir, B., Contribution Of Oil And Gas Production In The US To The Climate Change, SPE Annual Technical Conference and Exhibition (ATCE 2018), 24-26 September 2018, Dallas, Texas, USA, SPE-191482-MS . LINK
- 92. Ismail, N.*, **Hascakir, B.**, Kinetics Analysis Validation for In-Situ Combustion by Coupling Experimental Data with Analytical and Numerical Methods, *SPE Annual Technical Conference and Exhibition (ATCE 2018)*, 24-26 September 2018, Dallas, Texas, USA, SPE-191745-MS . LINK
- 91. Hascakir, B., Heavy Oil Extraction in Texas with a Novel Downhole Steam Generation Method: A Field-Scale Experiment, SPE Annual Technical Conference and Exhibition (ATCE 2018), 24-26 September 2018, Dallas, Texas, USA, SPE-191392-MS. LINK
- 90. Liao, H. *, Morte, M. *, Bloom, E. **, Huff, G. †, **Hascakir, B.**, Controlling Microwave Penetration and Absorption in Heavy Oil Reservoirs, *SPE Western Regional Meeting*, 22-27 April 2018, Garden Grove, California, USA, SPE-190089-MS. <u>LINK</u>
- 89. Al Atwah, I.*, Alshaikh, M.*, Sweet, S.T.[†], Knap, A.[†], **Hascakir, B.**, Extension of Existing Screening Criteria Tables for Thermal Enhanced Oil Recovery Methods through Compositional Analyses of Heavy Oils, *SPE Western Regional Meeting*, 22-27 April 2018, Garden Grove, California, USA, SPE-190026-MS. <u>LINK</u>
- 88. Ng, A.**, Ovalles, C.†, Benson, I.P.†, **Hascakir, B.**, Asphaltenes Contribution in Emulsion Formation during Solvent-Steam Processes, *SPE Western Regional Meeting*, 22-27 April 2018, Garden Grove, California, USA, SPE-190057-MS. LINK
- 87. Ismail, N.B.*, Seber, E.**, **Hascakir, B.**, Role of Aromatics Fraction of Crude Oil on In-Situ Combustion Performance, *SPE Improved Oil Recovery Conference (IOR 2018)*, 14-18 April 2018, Tulsa, OK, USA. SPE-190307-MS. <u>LINK</u>
- 86. Morte, M.*, Bloom, E. **, Huff, G.†, Hascakir, B., Factors Affecting Electromagnetic Wave Penetration in Heavy Oil Reservoirs, SPE Canada Heavy Oil Technical Conference, 13-14 March 2018, Calgary, Alberta, Canada. SPE-189746-MS. LINK
- 85. Alshaikh, M.*, Huff, G.†, **Hascakir, B.**, An Innovative Dielectric Constant Measurement Method to Determine the Ideal Surfactant Candidate to Enhance Heavy Oil Recovery, *SPE Canada Heavy Oil Technical Conference*, 13-14 March 2018, Calgary, Alberta, Canada. SPE-189752-MS. <u>LINK</u>
- 84. Ng, A.**, Seber, E.**, Ovalles, C.†, Benson, I.P.†, **Hascakir, B.**, The Use of Asphaltenes Precipitants and Environmentally Friendly Solvents during Solvent-Steam Processes, *SPE/EAGE Tar Mats & Heavy Oil Workshop: Fluid Characterization and Development/Operational Challenges*, 30-31 Jan 2018, Dubai, UAE. LINK
- 83. **Hascakir, B.**, Noynaert, S.[†], Prentice, J.[‡], Heavy oil extraction in Texas with a Novel Downhole Steam Generation Method: A Field-Scale Experiment, *SPE/EAGE Tar Mats & Heavy Oil Workshop: Fluid Characterization and Development/Operational Challenges*, 30-31 Jan 2018, Dubai, UAE. <u>LINK</u>
- 82. Ismail, N.B.*, **Hascakir, B.**, Increased Asphaltenes Surface Aides Fuel Formation with the Presence of Clays during In-situ Combustion, *SPE Annual Technical Conference and Exhibition (ATCE 2017)*, 9-11 October 2017, San Antonio, Texas, USA, SPE-187362-MS. LINK. Out of 2,521 abstracts
- 81. Zhang, L.*, Tice, M.[†], Marcantonio, F.[†], **Hascakir, B.**, Solid and Soluble Products of Engineered Water/Rock Interactions in Eagle Ford Group Chemofacies, *SPE Annual Technical Conference and Exhibition (ATCE 2017)*, 9-11 October 2017, San Antonio, Texas, USA, SPE-187296-MS. LINK. Out of 2,521 abstracts

- 80. **Hascakir, B.**, A New Approach to Determine Asphaltenes Stability, *SPE Annual Technical Conference and Exhibition (ATCE 2017)*, 9-11 October 2017, San Antonio, Texas, USA, SPE-187278-MS. <u>LINK</u>. Out of 2,521 abstracts
- 79. Pettengell, K.*, **Hascakir, B.**, Horizontal Water Injection: From Initiation to Evaluation, *SPE Annual Technical Conference and Exhibition (ATCE 2017)*, 9-11 October 2017, San Antonio, Texas, USA, SPE-187197-MS. <u>LINK</u>. Out of 2,521 abstracts
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- 77. Kar, T. *, **Hascakir, B.**, Impact of Clay Type on SAGD Performance Part I: Microscopic Scale Analysis of Clay-SARA Interactions in Produced Oil, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 17-19 May 2017, Buenos Aires, Argentina, SPE-185533-MS. <u>LINK</u>.
- 76. Kar, T. *, Hascakir, B., Impact of Clay Type on SAGD Performance Part II: Microscopic Scale Analysis of Clay-SARA Interactions in Spent Rock, SPE Latin American and Caribbean Petroleum Engineering Conference, 17-19 May 2017, Buenos Aires, Argentina, SPE-185547-MS. LINK.
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- 72. Banerjee, S.*, **Hascakir, B.**, Flow Control Devices in SAGD Completion Design: Enhanced Heavy Oil/Bitumen Recovery through Improved Thermal Efficiencies, *SPE Western Regional Meeting*, 23-27 April 2017, Bakersfield, California, USA, SPE-185703-MS. LINK.
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- 67. Kar, T. *, **Hascakir, B.**, The Interaction of Asphaltenes with Solvents, Water, and Clays during Bitumen Extraction through Solvent-Steam Injection, *SPE International Heavy Oil Conference & Exhibition*, 6-8 December 2016, Mangaf, Kuwait, SPE-184081-MS. LINK.
- 66. Ali, M. *, Banerjee, S.*, **Hascakir, B.**, The Environmental Aspect of Produced Water Management for the Oil Field Waters Originated Thermal EOR, *SPE International Heavy Oil Conference & Exhibition*, 6-8 December 2016, Mangaf, Kuwait, SPE-184139-MS. LINK.
- 65. Prakoso, A.A.*, Punase, A.*, **Hascakir, B.**, Pore Scale Representation of Near Wellbore Damage due to Asphaltene Deposition: Effect of Sand Grain Size and the Amount of Clay in Reservoir Rock, *SPE International Heavy Oil Conference & Exhibition*, 6-8 December 2016, Mangaf, Kuwait, SPE-184099-MS. <u>LINK</u>.
- 64. Banerjee, S.*, **Hascakir**, **B.**, Field Use of Tubing-Deployed Flow Control Devices to Improve the Economics and Environmental Costs of Albertan SAGD Operations, *The Seventh Annual Berg-Hughes Symposium*, 10-11 October 2016, Texas A&M University, College Station, Texas, USA (POSTER)
- 63. **Hascakir, B.**, In-Situ Combustion for Fracturing, *Thermal EOR International Workshop, "Thermal Methods for Enhanced Oil Recovery: Laboratory Testing, Simulation and Oilfields Applications"*, 28 June-1 July 2016, Kazan, Russia. <u>LINK</u>.
- 62. Stape, P.*, **Hascakir, B.**, Wettability Alteration during Solvent Assisted-Steam Flooding with Asphaltenes Insoluble Solvents, *SPE Latin America and Caribbean Heavy and Extra Heavy Oil Conference*, 19-20 October 2016, Lima, PERU, SPE-181148-MS. LINK.
- 61. Demir, A.B. *, Bilgesu, H.†, **Hascakir, B.**, The Effect of Brine Concentration on Asphaltene Stability, *SPE Annual Technical Conference and Exhibition (ATCE)*, 26-28 September 2016 in Dubai, UAE, SPE-181706-MS. LINK.
- 60. **Hascakir, B.**, The Impact of Asphaltenes on Thermal Enhanced Oil Recovery Performance, *Thermal Methods for Enhanced Oil Recovery: Laboratory Testing Simulation and Oilfields Applications*, 28 June- 1 July 2016, Kazan-Republic of Tataristan, RUSSIA. **Invited**
- 59. Ismail, N.B.*, Klock, K. **, Hascakir, B., In-situ Combustion Experiences in Heavy Oil Carbonates, SPE Canada Heavy Oil Technical Conference, 7-9 June 2016, Calgary, Alberta, Canada, SPE-180724-MS. LINK.

- 58. Coelho, R.S.C.*, Ovalles, C.†, Benson, I.P.†, **Hascakir, B.**, Clay-Asphaltene Interactions during Hybrid Solvent-Steam Injection Into Bitumen Reservoirs, *SPE Canada Heavy Oil Technical Conference*, 7-9 June 2016, Calgary, Alberta, Canada, SPE-180723-MS. LINK.
- 57. **Hascakir, B.**, Finding the Right Recipe to Effective Extraction of High Viscosity and Low API Gravity Hydrocarbon Resources, SPE Western Regional Meeting, 23-26 May 2016, Anchorage, Alaska, USA, SPE-180424-MS. <u>LINK</u>.
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- 53. Punase, A.*, **Hascakir, B.**, The Role of Deasphalted Oil in the Stability of Asphaltenes, *2016 AlChE Spring Meeting & 12th Global Congress on Process Safety, 4th International Conference on Upstream Engineering and Flow Assurance, 10-14 April 2016. Houston, Texas, USA.*
- 52. Stape, P.*, Ovalles, C.‡, **Hascakir, B.**, Pore Scale Displacement Mechanism of Bitumen Extraction with High Molecular Weight Hydrocarbon Solvents, *20th SPE Improved Oil Recovery Conference*, 9-13 April 2016, Tulsa, Oklahoma, USA, SPE-179608-MS. LINK.
- 51. Morte, M.*, **Hascakir, B.**, Relative Permeability Estimation in Steam Assisted Gravity Drainage (SAGD) Using a Fractional Flow Model, 20th SPE Improved Oil Recovery Conference, 9-13 April 2016, Tulsa, Oklahoma, USA, SPE-179532-MS. LINK.
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- 47. Coelho, R.S.C.*, Barrufet, M.[†], **Hascakir, B.**, Effect of Impurities in Carbon Dioxide Stream on Phase Behavior for Geological Storage of Carbon Dioxide in Low API Gravity Oil Reservoirs, *Carbon Management Technology Conference*, Sugar Land, Texas, USA, 17-19 November 2015, CMTC 439524. <u>LINK</u>.
- 46. Aleksandrov, D.*, Kudryavtsev, P.*, **Hascakir, B.**, Impact of Fracture Orientation on In-Situ Combustion Performance, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 18-20 November 2015, Quito, ECUADOR, SPE-177063-MS. <u>LINK</u>.
- 45. Prakoso, A.**, Punase, A.*, **Hascakir, B.**, A Mechanistic Understanding of Asphaltene Precipitation from Varying Saturate Concentration Perspective, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 18-20 November 2015, Quito, ECUADOR, SPE-177280-MS. <u>LINK</u>.
- 44. Kozlowski M.L.**, Punase, A.*, Nasr-El-Din, H.[†], **Hascakir, B.**, The Catalytic Effect of Clay on In-Situ Combustion Performance, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 18-20 November 2015, Quito, ECUADOR, SPE-177166-MS. LINK.
- 43. Klock, K.**, **Hascakir, B.**, Simplified Reaction Kinetics Model for In-Situ Combustion, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 18-20 November 2015, Quito, ECUADOR, SPE-177134-MS. <u>LINK</u>.
- 42. Kar, T.*, Punase, A.*, **Hascakir, B.**, Investigation of Chemical Physical Properties of Oil Shales with Spectral and Thermal Methods, *The Sixth Annual Berg-Hughes Symposium*, 16 October 2015, Texas A&M University, College Station, Texas, USA (POSTER).
- 41. Kar, T.*, Kozlowski M.L.**, **Hascakir, B.**, Characterization of Kerogen for Green River Oil Shale, *The Sixth Annual Berg-Hughes Symposium*, 16 October 2015, Texas A&M University, College Station, Texas, USA. (POSTER).
- 40. **Hascakir, B.**, Real-Time Tracking of Fracture Propagation during Air Injection as an Alternative Fracturing Fluid, *SPE Eastern Regional Meeting*, 13-15 October 2015, Morgantown, West Virginia, USA, SPE-177303-MS. <u>LINK</u>.
- 39. Ali, M.*, **Hascakir, B.**, Water-Rock Interaction for Eagle Ford, Marcellus, Green River, and Barnett Shale Samples, *SPE Eastern Regional Meeting*, 13-15 October 2015, Morgantown, West Virginia, USA, SPE-177304-MS. <u>LINK</u>.
- 38. Kozlowski, M.**, Kar, T. *, **Hascakir, B.**, Ex-situ Extraction of Green River Oil Shale by Combustion, *Western States Section of the Combustion Institute Fall Meeting*, Provo, Utah, USA. October 5-6, 2015. 134IE-0051.
- 37. Klock, K.**, Prakoso, A.*, Punase, A.*, **Hascakir, B.**, The combustion behavior of various hydrocarbons with complex molecular structures, *Western States Section of the Combustion Institute Fall Meeting*, Provo, Utah, USA. October 5-6, 2015. 134CK-0042.
- 36. **Hascakir, B.**, Description of In-situ Oil Upgrading Mechanism for In-situ Combustion Based on a Reductionist Chemical Model, *SPE Annual Technical Conference and Exhibition (ATCE)*, 28-30 September 2015 in Houston, Texas, USA, SPE 175086-MS. DR: 47. <u>LINK</u>.
- 35. **Hascakir, B.**, Evaluation of Thermal Enhanced Oil Recovery Methods, SPE Heavy Oil Workshop: Lifting Recovery to the Next Level, 22-23 September 2015 in Budapest, Hungary. LINK. Invited

- 34. Stape, P.*, **Hascakir, B.**, The Performance Evaluation of Solvent-Steam Processes for Bitumen Extraction, *International Science* and Practice Conference "Specific of Survey and Exploration of Alternative Hydrocarbon Fields", 2-3 September, 2015, Kazan, Republic of Tatarstan, Russia. **Invited**
- 33. Kar, T.*, Yeoh, J.**, Ovalles, C.[†], Rogel, E.[†], Benson, I.P.[†], **Hascakir, B.**, The Impact of Asphaltene Precipitation and Clay Migration on Wettability Alteration for Steam Assisted Gravity Drainage (SAGD) and Expanding Solvent SAGD (ES-SAGD), *2015 SPE Heavy Oil Conference*, 9-11 June, 2015, Calgary, Alberta, Canada, SPE-174439-MS. LINK.
- 32. Guven, S.*, Akin, S.†, **Hascakir, B.**, Spectral and Thermal Analysis Explains the Mechanisms of Oil Shale Recovery with Microwave Heating, *20th International Petroleum and Natural Gas Congress and Exhibition of Turkey*, 27-29 May 2015, Ankara, Turkey. <u>LINK</u>.
- 31. **Hascakir, B.**, Soot Particle and Ash Analysis for Combustion, Combustion Institute, *9th U.S. National Combustion Meeting*, May 17-20 2015, Cincinnati, Ohio, USA, 114DI-0066.
- 30. Unal, Y.*, Kar, T. *, Mukhametshina, A.*, **Hascakir B.**, The Impact of Clay Type on the Asphaltene Deposition during Bitumen Extraction with Steam Assisted Gravity Drainage, *International Symposium on Oil Field Chemistry*, 13-15 April 2015, The Woodlands, Texas, USA, SPE-173795-MS. <u>LINK</u>.
- 29. Abdulsattar, Z.R.*, Agim, K.*, Lane, R.H.[†], **Hascakir, B.**, Physicochemical Interactions of Shale with Injected Water-Based Fluids, *International Symposium on Oil Field Chemistry*, 13-15 April 2015, The Woodlands, Texas, USA, SPE-173727-MS. <u>LINK</u>.
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- 27. Guven, S.*, Akin S.†, **Hascakir, B.**, Comprehensive Spectral and Thermal Characterization of Oil Shales, *SPE Middle East Unconventional Resources Conference and Exhibition*, 26-28 January 2015, Muscat, Oman, SPE-172952-MS. LINK.
- 26. Kar, T.*, Williamson, M.**, Hascakir, B., The Role of Asphaltenes in Emulsions Formation for Steam Assisted Gravity Drainage (SAGD) and Expanding Solvent-SAGD (ES-SAGD), 2014 SPE Heavy and Extra Heavy Oil Conference-Latin America, 24-26 September 2014, Medellin, Colombia, SPE-171076-MS. LINK
- 25. **Hascakir, B.**, Kovscek A.[†], Analysis of In-Situ Combustion Performance in Heterogeneous Media, *2014 SPE Heavy Oil Conference*, 10-12 June, 2014, Calgary, Alberta, Canada, SPE 170008-MS. <u>LINK</u>
- 24. Mukhametshina, A.*, **Hascakir, B.**, Bitumen extraction by expanding solvent-steam assisted gravity drainage (ES-SAGD) with asphaltene solvents and non-solvents, *2014 SPE Heavy Oil Conference*, 10-12 June, 2014, Calgary, Alberta, Canada, SPE 170013-MS. LINK
- 23. Morrow, A.**, Mukhametshina, A.*, Aleksandrov, D.*, **Hascakir, B.**, Environmental Impact of Bitumen Extraction with Thermal Recovery, *2014 SPE Heavy Oil Conference*, 10-12 June, 2014, Calgary, Alberta, Canada, SPE 170066-MS. <u>LINK</u>
- 22. Mukhametshina, A.*, Morrow, A.**, Aleksandrov, D.*, **Hascakir, B.**, Evaluation of Four Thermal Recovery Methods for Bitumen Extraction, *2014 SPE Western North America and Rocky Mountain Joint Regional Meeting*, 16-18 April 2014 Denver, CO, USA, SPE 169543-MS. LINK
- Kudryavtsev, P.*, Hascakir, B., Towards Dynamic Control of In-situ Combustion: Effect of Initial Oil and Water Saturations, 2014 SPE Western North America and Rocky Mountain Joint Regional Meeting, 16-18 April 2014 Denver, Colorado USA, SPE 169542-MS. LINK

Before Texas A&M

- 20. **Hascakir, B.**, Ross, C., Castanier, L. Kovscek, A.[†], Fuel Formation During In-Situ Combustion of Heavy Oil, *SPE Annual Technical Conference and Exhibition (ATCE)*, 30 October-2 November 2011 in Denver, Colorado, USA, SPE-146867-PP. LINK
- 19. Glatz, G., **Hascakir, B.**, Clemens, T.†, Castanier, L., Kovscek, A.†, Kinetic Cell and Combustion Tube Results for a Central European Crude, *SPE Annual Technical Conference and Exhibition (ATCE)*, 30 October-2 November 2011 in Denver, Colorado, USA, SPE-146089-PP. LINK
- 18. **Hascakir, B.**, Babadagli, T.[†], Akin, S.[†], Heavy Oil Recovery from Oil Shales by Electrical Heating, *SPE History Matching: Field Experiences and Lessons Learned*, Cartagena, Colombia, 29-31 August 2011. **Invited**
- 17. **Hascakir, B.**, Castanier, L., Kovscek, A.[†], In-Situ Combustion Dynamics Visualized with X-Ray Computed Tomography, *SPE Annual Technical Conference and Exhibition (ATCE)*, Florence, Italy, 20-22 September 2010, SPE-135186-PP. <u>LINK</u>
- 16. Karaca, H.[†], Kartal, O. E.[†], Akin, S.[†], **Hascakir, B.**, Characterization of Solid and Liquid Hydrocarbons Obtained from Liquefaction of Nigde-Ulukisla Oil Shales, *The 9th National Chemistry Congress*, 22-25 June, 2015, Ankara/Turkey. <u>LINK</u>.
- Hascakir, B., Kovscek, A. ¹, Reservoir Simulation of Cyclic Steam Injection Including the Effects of Temperature Induced Wettability Alteration, 2010 SPE Western Regional Meeting, Anaheim, California, USA, 27-29 May 2010, SPE 132608. LINK
- 14. **Hascakir, B.**, Acar, C., Demiral, B.[†], Akin, S.[†], Microwave Assisted Gravity Drainage of Heavy Oils, *International Petroleum Technology Conference*, Kuala Lumpur, Malaysia, 3–5 December 2008, IPTC-12536-MS. LINK
- 13. **Hascakir, B.**, Babadagli, T.[†], Akin, S.[†], Experimental and Numerical Modeling of Heavy-Oil Recovery by Electrical Heating, *SPE International Thermal Operations and Heavy Oil Symposium*, Calgary, Alberta, CANADA, 21-23 October 2008, SPE-117669. LINK
- 12. Karaca, H.[†], Kartal, O. E.[†], Akin, S.[†], **Hascakir, B.**, Liquefaction of Nigde-Ulukisla Oil Shales and the Waste Paper, *The 22nd National Chemistry Congress*, 6-10 October, 2015, Famagusta/Cyprus.

- 11. Acar, C., **Hascakir, B.**, Demiral, B.[†], Akin, S.[†], Karaca, H.[†], Kartal, O.E.[†], Microwave Heating of Heavy Oil Reservoirs: Effect of Wettability, *150 Years of Petroleum Industry: Tradition & Challenges*, Bucharest, ROMANIA, October 2007.
- 10. **Hascakir, B.**, Acar, C., Demiral, B[†], Akin, S.[†], Karaca, H.[†], Kartal, O.E.[†], Heavy Oil Recovery from Thin Pay Zones by Microwave Heating, *International Petroleum and Natural Gas Congress & Exhibition of Turkey*, Ankara, TURKEY, May 2007 (Turkish).
- 9. Hascakir, B., Akin S.[†], Effect of Metallic Additives on Upgrading Heavy Oil with Microwave Heating, First World Heavy Oil Conference (WHOC), Beijing, CHINA, November 2006.
- 8. **Hascakir, B.**, Dolgen, D.[†], Investigation of Treatment Performance of Kaolinite onto Different Wastewater Types and Treatment Methods, *Fourth Mediterranean Clay Meeting*, Ankara, TURKEY, September 2006.
- 7. **Hascakir, B.**, Dolgen, D.[†], Evaluation of Treatment Efficiencies of Kaolinite for Various Wastewater Samples, *Bridging Clays*, Ile d'Oléron, FRANCE, June 2006.
- 6. Hascakir, B., Hydraulic Potential of Turkey, 3rd Aegean Energy Symposium, Mugla, TURKEY, May 2006 (Turkish).
- 5. **Hascakir, B.**, Dolgen, D.[†], Chemical Treatment of Wastewaters Originated From Printing Processes of Corrugated Box Industries, 6th National Environmental Engineering Conference, Istanbul, TURKEY, November 2005 (Turkish).
- 4. **Hascakir, B.**, Dolgen, D.[†], Utilization of Clay Minerals in Wastewater Treatment: Organic Matter Removal with Kaolin (China Clay), *12th National Clay Conference*, Van, September 2005 (Turkish).
- 3. **Hascakir, B.**, Demiral, B[†], Akin, S.[†], Experimental and Numerical Analysis of Oil Shale Production Using Retort Technique, *15th International Petroleum and Natural Gas Congress and Exhibition of Turkey*, Ankara, TURKEY, May 2005.
- 2. Dolgen, D.†, **Hascakir, B.**, Akkus, M., Application of Clay Minerals in the Environmental Engineering: Experiments with Domestic Wastewater, *Ecology Congress*, Bolu, TURKEY, October 2004 (Turkish).
- 1. **Hascakir, B.**, Dolgen, D.[†], Akkus, M., Treatability of Corrugated Paperboard Industry Wastewater by Physicochemical Treatment Methods, *9*th *Industrial Contamination Congress*, Istanbul, TURKEY, June 2004 (Turkish).
- **C.5. Abstracts Under Review** (*indicates MS or PhD level students, **indicates Undergraduate level students, †indicates faculty collaborators, ‡ indicates industry collaborators)
- 8. Ismail, N.B.*, **Hascakir, B.**, Kinetics Analysis Validation for In-situ Combustion by Coupling Experimental Data with Analytical and Numerical Methods, *SPE Western Regional Meeting*, 22-27 April 2018, Garden Grove, California, USA, 18WRM-P-1343-SPE.
- 7. Al Atwah, I.*, Alshaikh, M.*, Sweet, S.T. †, Knap, A. †, **Hascakir, B.**, The Quality Estimation of Crude Oil through Genetic Structure Determination, *SPE Western Regional Meeting*, 22-27 April 2018, Garden Grove, California, USA, 18WRM-P-1342-SPE.
- 3. Liao, H.*, Huff, G.†, **Hascakir, B.**, Enhancing Microwave Heating Efficiency by Using Asphaltenes Dispersants, *SPE Improved Oil Recovery Conference (IOR 2018)*, 14-18 April 2018, Tulsa, OK, USA. 18IOR-P-1592-SPE.
- 2. Ng, A. **, Seber, E. **, Ovalles, C. †, Benson, I. †, **Hascakir, B.**, The Use of Asphaltene Precipitants and Environmentally Friendly Solvents during Solvent-Steam Processes, *SPE Improved Oil Recovery Conference (IOR 2018)*, 14-18 April 2018, Tulsa, OK, USA. 18IOR-P-1586-SPE.
- 1. Morte, M.*, Huff, G.[‡], **Hascakir, B.**, Dynamic Polarization of Quartz Bearing Formations with Electromagnetic Waves as a Function of Mechanical Stress, *SPE Improved Oil Recovery Conference (IOR 2018)*, 14-18 April 2018, Tulsa, OK, USA. 18IOR-P-313-SPE.

C.6. Citation

i- Google Scholar for citation: LINK

Citations: 887

h-index: 17 (Attempts to measure both the productivity and impact of the published work of a scientist or scholar)

i10-index: 30 (Indicates the number of academic publications that have at least ten citations from others)

ii- Scopus: Author ID: 23984761300: 72 Documents, 47 co-authors, total citation by 169 documents LINK

Citations: 709 h-index: 15

iii- Research Gate: 34 Articles, 36 Conference Papers: LINK

Citations: 293 h-index: 10

<u>RG Score</u>: 23.90 (The RG Score takes all your research and turns it into a source of reputation. It is calculated based on the research in your profile and how other researchers interact with your content) **LINK**

Reads: 3,601

D. REPORTS

1. Karaca, H.[†], Akın, S.[†], Kartal, Ö.E.[†], **Hascakir, B.**, Liquefaction of Nigde-Ulukisla Oil Shales by Catalytic and non-catalytic thermal methods, The Scientific & Technological Research Council of Turkey, 2007, Report No: 104M181. <u>LINK</u>

TEACHING

A. COURSES TAUGHT

A.1. At Texas A&M University, Petroleum Engineering Department, College Station, Texas, USA, Role: Instructor

Itemized and Overall Teaching Evaluation Scores evaluated by 518 students between Fall 2012 to Spring 2019

| Level | Class Preparation | Communication | Responsiveness | Academic Concern | Environment | Overall |
|---------------|-------------------|---------------|----------------|------------------|-------------|---------|
| Undergraduate | 4.64 | 4.33 | 4.49 | 4.73 | 4.41 | 4.43 |
| Graduate | 4.14 | 3.90 | 4.11 | 4.23 | 4.07 | 4.02 |
| Overall | 4.39 | 4.11 | 4.30 | 4.48 | 4.24 | 4.23 |

Texas A&M University, Petroleum Engineering Department, Teaching Evaluations Average for undergraduate classes 3.89 and graduate classes 4.02

| Semester | Course Description, (number of enrolled students) | Teaching Evaluation over 5.00; 5: Excellent, 4: Very Good, 3: Good |
|-------------|--|---|
| Summer 2019 | PETE 609 – EOR Methods-Thermal Processes, Graduate Level (5) | |
| Summer 2019 | PETE 409 – EOR Methods-Thermal Processes, Undergraduate Level (4) | |
| Spring 2019 | PETE 314 – Transport Processes in Petroleum Production, Undergraduate Level (54) | 4.65 evaluated by 50 students |
| Fall 2018 | PETE 609 – EOR Methods-Thermal Processes, Graduate Level (0) | Not evaluated |
| Fall 2017 | PETE 310 – Reservoir Fluids, Undergraduate Level (62) | 4.05 evaluated by 62 students |
| Summer 2017 | PETE 489 – Special Topics; Thermal EOR, Undergraduate Level (4) | 4.88 evaluated by 4 students |
| Summer 2017 | PETE 606 – EOR Methods-Thermal Processes, Graduate Level (26) | 3.99 evaluated by 26 students |
| Spring 2017 | PETE 489 – Special Topics; EOR Methods, Undergraduate Level (11) | 4.07 evaluated by 10 students |
| Spring 2017 | PETE 609 – EOR Methods, Graduate Level (15) | 4.28 evaluated by 14 students |
| Fall 2016 | PETE 310 – Reservoir Fluids, Undergraduate Level (80) | 4.03 evaluated by 73 students |
| Summer 2016 | PETE 489 – Special Topics; EOR Methods, Undergraduate Level (7) | 4.35 evaluated by 6 students |
| Summer 2016 | PETE 609 – EOR Methods, Graduate Level (39) | 3.57 evaluated by 27 students |
| Spring 2016 | PETE 485 – Directed Study (1) | Not evaluated |
| Spring 2016 | PETE 681 – Graduate Seminar (65) | 4.04 evaluated by 23 students |
| Spring 2016 | PETE 489 – Waterflooding Undergraduate Level (1) | Not evaluated |
| Spring 2016 | PETE 623 – Waterflooding, Graduate Level (7) | 3.9 evaluated by 6 students |
| Fall 2015 | PETE 685 – Directed Studies: Principles of IR, spectroscopy, calorimetry, | Not evaluated |
| | gravimetric measurement methods, Graduate Level (4) | |
| Fall 2015 | PETE 485 – Directed Studies: Combustion, Undergraduate Level (1) | Not evaluated |
| Fall 2015 | PETE 681 – Graduate Seminar (108) | 3.91 evaluated by 52 students |
| Fall 2015 | PETE 310 – Reservoir Fluids, Undergraduate Level (94) | 4.15 evaluated by 85 students |
| Summer 2015 | PETE 485 – Directed Studies: Reaction Kinetics, Undergraduate Level (2) | Not evaluated |
| Summer 2015 | PETE 623 – Waterflooding, Graduate Level (25) | 3.84 evaluated by 21 students |
| Spring 2015 | PETE 609 – EOR Methods, Graduate Level (28) | 4.18 evaluated by 25 students |
| Spring 2015 | PETE 489 – Special Topics; EOR Methods, Undergraduate Level (17) | 3.71 evaluated by 17 students |
| Fall 2014 | PETE 310 – Reservoir Fluids, Undergraduate Level (38) | 4.34 evaluated by 27 students |
| Summer 2014 | PETE 609 – EOR Methods, Graduate Level (33) | 4.12 evaluated by 28 students |
| Spring 2014 | PETE 485 – Directed Studies: Water/Oil Emulsion, Undergraduate Level (1) | Not evaluated |
| Spring 2014 | PETE 310 – Reservoir Fluids, Undergraduate Level (56) | 3.64 evaluated by 50 students |
| Fall 2013 | PETE 685 – Directed Studies: PVT Behavior, Graduate Level (1) | Not evaluated |
| Fall 2013 | PETE 606 – EOR Methods-Thermal Processes, Graduate Level (19) | 4.32 evaluated by 18 students |
| Spring 2013 | PETE 685 – Directed Studies: Thermal EOR, Graduate Level (4) | Not evaluated |
| Spring 2013 | PETE 310 – Reservoir Fluids, Undergraduate Level (58) | 4.39 evaluated by 44 students |
| Fall 2012 | PETE 606 – EOR Methods-Thermal Processes, Graduate Level (23) | 4.17 evaluated by 15 students |
| 2012 | STUDENT AVERAGE= | 4.23 evaluated by 690 students |

Students' and the peer reviewed teaching evaluations can be found at https://www.hascakir.com/courses

A.2. At Middle East Technical University, Petroleum and Natural Gas Engineering Department, Ankara, Turkey, Role: Teaching Assistant

Semester Course Description Instructor

| Spring 2007 | PETE 342 – Petroleum Reservoir Engineering I, Undergraduate Level | Prof. Dr. Mahmut Parlaktuna |
|-------------|---|-----------------------------|
| Fall 2006 | PETE 211 – Introduction to Fluid Mechanics, Undergraduate Level | Prof. Dr. Serhat Akin |
| Fall 2005 | PETE 342 – Petroleum Reservoir Engineering I, Undergraduate Level | Prof. Dr. Mahmut Parlaktuna |
| Fall 2005 | PETE 441 – Petroleum Reservoir Engineering II, Undergraduate Level | Prof. Dr. Ender Okandan |
| Spring 2005 | PETE 216 – Reservoir Rock & Fluid Properties, Undergraduate Level | Prof. Dr. Tanju Mehmetoglu |
| Fall 2004 | ES 202 – Mathematics for Engineers, Undergraduate Level | Prof. Dr. Tanju Mehmetoglu |
| Spring 2004 | PETE 110 – Introduction to Petroleum Engineering, Undergraduate Level | Prof. Dr. Birol Demiral |

A.3. At Mimar Kemalettin Elementary School and Altin Computer Course, Izmir, Turkey, Role: Instructor

| Semester | Course Description |
|-------------|---|
| Spring 2003 | Computer, Primary and Secondary School, 4th |

th- 7th grades Fall 2002 Computer, Primary and Secondary School, 4th- 7th grades Spring 2002 Computer, Primary and Secondary School, 1st-7th grades

B. ADVISING/SUPERVISING LINK

B. 1. Graduate Students-PhD (*: sponsored, **: Supported by Dr. Hascakir's research fund) (3 graduated, 5 continuing)

Name, Start Date, Graduation Date, Dissertation Title/Topic, Current Position

- 1. Sudiptya Banerjee **, Fall 2013, Graduated in December 2016, Dissertation Title: Flow Control Devices in SAGD Completion Design: Enhanced Heavy Oil/Bitumen Recovery Through Improved Thermal Efficiencies LINK, Reservoir Engineer in Santrol, Texas.
- 2. Abhishek Punase **, Summer 2015, Graduated in May 2017, Dissertation Title: Factors Affecting Asphaltenes Stability, Engineer in Clariant Corporation, North Carolina.
- 3. Taniya Kar **, Fall 2015, Graduated in August 2017, Dissertation Title: Emulsion Formation Mechanism for Solvent-Steam Processes, Postdoctoral Researcher in Reservoir Engineering Research Institute, Palo Alto, California, US.
- 4. Norasyikin Ismail*, Fall 2015, Expected Graduation Date: August 2019-Passed the PhD Qualification, Dissertation Topic: Combustion kinetics of various crude oils, Student at Texas A&M University.
- 5. Murtdha Alshaikh*, Fall 2015, Expected Graduation Date: August 2019-Passed the PhD Qualification, Dissertation Topic: Performance prediction of surfactant flooding with high polarity crude oils, Student at Texas A&M University.
 - 6. Lifu Zhang (CoAd.)**, Spring 2016, Expected Graduation Date: August 2019, Dissertation Topic: Water-Rock interaction
- 7. Matthew Morte**, Fall 2015, Expected Graduation Date: August 2019-Passed the PhD Qualification, Dissertation Topic: Effectiveness of Microwave Heating to Inhibit Asphaltenes Precipitation, Student at Texas A&M University.
- 8. Roly Simangunsong**, Spring 2016, Expected Graduation Date: August 2020-Passed the PhD Qualification, Dissertation Topic: Cyclic solvent-steam injection, Student at Texas A&M University.
- 9. Narendra Vishnumolakala**, Spring 2019, Expected Graduation Date: August 2022, Dissertation Topic: RF Heating, Student at Texas A&M University.
- 10. Abinash Barooah**, Spring 2019, Expected Graduation Date: August 2022, Dissertation Topic: Multi-phase fluid Flow in porous media, Student at Texas A&M University.
- B.2. Graduate Students-MS (*: sponsored, **: Supported by Dr. Hascakir's research fund) LINK (11 graduated, 1 continuing)

Name, Start Date, Graduation Date, Thesis Title/Topic, Current Position

- 1. Denis Aleksandrov*, September 2012, Graduated in August 2013, Thesis Title: Effect of Initial Oil Saturation on In-Situ Combustion Performance of a Canadian Bitumen LINK, Engineer-Lukoil-Russia.
- 2. Philipp Kudryavtsev*, September 2012, Graduated in December 2013, Thesis Title: An Experimental Investigation of Water Influence on Dry Forward In-Situ Combustion LINK, Engineer-Lukoil-Russia.
- 3. Albina Mukhametshina*, September 2012, Graduated in December 2013, Thesis Title: Reducing the Environmental Impact of Bitumen Extraction with ES-SAGD Process LINK, Engineer-Lukoil-Russia.
- 4. Yasin Unal *, September 2012, Graduated in December 2014, Thesis Title: Thermally Induced Wettability Change during SAGD for Oil Sand Extraction LINK, Engineer-TPAO-Turkey.
- 5. Zade R. Satter (CoAd.)**, September 2013, Graduated in May 2015, Thesis Title: Physicochemical Interactions of Source-Rocks with Injected Water-Based Fluids LINK
- 6. Maaz I. Ali **, September 2013, Graduated in August 2015, Thesis Title: Produced Water Quality Based on Thermal Recovery Processes and After Interaction with Shale, Engineer-Schlumberger, USA.

- 7. Kar, Taniya**, September 2013, Graduated in August 2015, <u>Thesis Title</u>: Analysis of Saturates, Aromatics, Resins, Asphaltenes (SARA), Water, and Clays in Water-Oil Emulsions for Steam-Assisted Gravity Drainage (SAGD) and Expanding Solvent-SAGD (ES-SAGD) <u>LINK</u>, Postdoctoral Researcher in Reservoir Engineering Research Institute, Palo Alto, California, US.
- **8. Raphael Coelho ***, September 2014, **Graduated in May 2016**, <u>Thesis Title</u>: Microscopic Displacement of Bitumen during Solvent-Steam flooding: Effects of Reservoir Clays and Solvent Type <u>LINK</u>, **Reservoir Engineer in Shell Brazil**.
- **9.** Philip Stape *, September 2014, Graduated in May 2016, <u>Thesis Title</u>: Performance Evaluation of Solvent Assisted-Steam Injection Processes with Asphaltene Insoluble Solvents <u>LINK</u>, PhD Student at Universidade Federal do Rio de Janeiro, Brazil.
- **10.** Andreas Prakoso**, Summer 2015, Graduated in May 2016, <u>Thesis Title</u>: Physicochemical Characterization of Asphaltenes <u>LINK</u>, Energy Consultant in Accenture, Indonesia.
- 11. Matthew Morte **, Fall 2015, Graduated in August 2016, Thesis Title: Wettability Alteration for Steam Assisted Gravity Drainage (SAGD) and Solvent-SAGD LINK, PhD Student at Texas A&M University.
- **13.** Alwin Ng *, Spring 2018, Graduated in August 2018, <u>Thesis Topic</u>: The use of environmentally friendly solvents to extract heavy oil and bitumen through solvent-steam processes, Intern in Malaysia.
- **12. Michael (Huaiqi) Liao ***, Fall 2016, **Graduated in May 2019**, <u>Thesis Topic</u>: Efficiency of Microwave Heating on Breaking Polar Asphaltenes, **MS Student at Texas A&M University**.
- B.3. Graduate Students- MEng (*: sponsored, **: Supported by Dr. Hascakir's research fund) LINK (1 graduated, 5 continuing)

Name, Start Date, Graduation Date, Thesis Title/Topic, Current Position

- **1. Katherine Pettengell ***, Spring 2016, **Graduated in May 2016**, <u>Research Topic</u>: Horizontal Water Injection: From Initiation to Evaluation, **Reservoir Eng. in OMV in New Zealand**.
- **2. Olivier Henri Armand Lancon** *, September 2016, **Graduated in December 2017**, <u>Research Topic</u>: Contribution of Oil and Gas Production within the U.S. to The Climate Change, **Engineer in Total in France**.
- 3. Kevin Volz *, September 2016, Expected Graduation Date: May 2020, Research Topic: TBD, Field Engineer at Baker Hughes Oil Tools and MEng Student at Texas A&M University.
- 4. Scott James Badham *, September 2015, Expected Graduation Date: May 2020, Research Topic: TBD, Lead Engineer at Chemical Tracers Inc. and MEng Student at Texas A&M University.
 - 5. Harry Liu *, September 2016, Expected Graduation Date: December 2019, Research Topic: TBD.
- B.4. Graduate Students-Visiting Undergraduate (UG), MSc and PhD (*: sponsored, **: Supported by Dr. Hascakir's research fund) (2 graduated)

Name, Degree, Graduation Date, Institution

- 1. Selin Guven (CoAd.)**, MSc-LINK, Graduated in December 2015, Middle East Technical University
- 2. Ahmet Birkan Demir (CoAd.) **, MS, Graduated in December 2016, West Virginia University
- 3. Elizabeth Seber*, UG, Sophomore, Pennsylvania State University-NSF Sponsored.
- 4. Farooq Muhammad Zia *, UG, Sophomore, Texas A&M University, Qatar.
- 5. John Siu*, UG, Sophomore, University of Rochester-NSF Sponsored.
- 6. Yeh Seng Lee*, UG, Junior, Universiti Teknologi Petronas, Malaysia.
- B.5. Undergraduate Students (*: sponsored, **: Supported by Dr. Hascakir's research fund) (21 completed, 0 continuing)

Name, Starting Degree, Starting Semester, Research Topic

- Yeh Seng Lee*, (Visiting Scholar from Universiti Teknologi Petronas), Junior, January 14-April 19, 2019. Research Topic: Surfactant-Steam Flooding
- 2. John Siu* (Visiting NSF Scholar from University of Rochester), Sophomore, Summer 2018, Research Topic: In-situ Combustion
- 3. Alwin Ng *, Junior-Honor Student, Spring 2017-Fall 2017, Research Topic: Emulsion Formation Mechanism.
- 4. Hindi Mousa Wael, Junior-Honor Student, Fall 2017, Research Topic: Calculation of reaction kinetics parameters for heavy crude oils.
- 5. Priscilla Rodriguez Tovar, Junior, Fall 2017, Research Topic: Solvent-Steam Processes.
- 6. Shams Z. Al Bayati, Junior-Honor Student, Fall 2017, Research Topic: The Use of Microwave as an EOR method.
- 7. Tracey Onyinye Ike, Junior-Honor Student, Fall 2017, Research Topic: Solvent-Steam Processes.
- 8. Elizabeth Seber* (Visiting NSF Scholar from PennState), Sophomore, Summer 2017, Research Topic: In-situ Combustion
- D. Farooq Muhammad Zia * (Visiting student from TAMU Qatar), Sophomore, Summer 2017, Research Topic: Steam Processes
- 10. Abrar Alshaikh *, Senior-Honor Student, Spring 2017, Research Topic: Solvent-Steam Processes

- 11. Philipos Melake *, Junior, Summer 2016, Research Topic: Solvent –Steam Processes
- 12. Pedram Bakhtiari Nezhad *, Junior, Summer 2016, Research Topic: Solvent –Steam Processes
- 13. Ryan Reyna*, Junior, Summer 2015, Research Topic: Review on Thermal EOR
- 14. Hasun D. Kim*, Junior, Summer 2015, Research Topic: In-Situ Combustion
- 15. Catherine E. Sparkes *, Junior, Summer 2015, Research Topic: In-Situ Combustion
- **16.** Andreas Prakoso **, Senior, **2014-2015**, Research Topic: Asphaltenes Characterization
- 17. Kristina Klock **, Sophomore, 2013-2016, Research Topic: In-Situ Combustion and Reaction Kinetics
- 18. Matthew Lee Kozlowski, Junior, Fall 2014, Research Topic: In-Situ Combustion
- 19. Jun Yeoh **, Junior, Summer/Fall 2014, Research Topic: Steam Assisted Gravity Drainage (SAGD)
- 20. Jennifer Nguyen **, Junior, Summer 2014, Research Topic: Residual Oil Saturation Determination
- 21. Anderson Morrow**, Junior, Summer 2013, Research Topic: Steam Flooding, In-situ Combustion, and SAGD
- 22. Niraj Shah **, Sophomore, Spring 2014, Research Topic: In-Situ Combustion
- 23. Matthew Williamson **, Sophomore-Honor Student, Fall 2013, Research Topic: Steam Assisted Gravity Drainage (SAGD)

B.6. Mentoring (Students were mentored on research and teaching) (*: sponsored, **: Supported by Dr. Hascakir's research fund)

Name, Degree, Duration, Mentoring Topic

- 1. Ahmed Hanafy **, PhD, 2014-2015, Mentoring Topic: Alternative Fracturing Fluids
- 2. Nesreen Elsayed *, PhD, Spring 2013, Mentoring Topic: Teaching in Higher Education
- 3. Enrique Vidal *, PhD, 2012-2013, Mentoring Topic: Research on Steam Processes
- 4. Sherif Abdelmoneim **, MS, Fall 2013, Mentoring Topic: 3D in-situ combustion test
- 5. Mengdi Gao **, MS, 2012-2013, Mentoring Topic: Research on Shales
- 6. Sung Yun Han **, MS, 2012-2013, Mentoring Topic: Research on Seismic
- 7. Assiya Suleimenova **, MS, 2012-2014, Mentoring Topic: Research on Thermal Recovery

B.7. Teaching Assistants

Name, Advisor, Semester, Class

- 1. Masoud Alfi, Dr. John Killough & Dr. Maria Barrufet, Spring 2013-Spring 2014, PETE 310-Reservoir Fluids
- 2. Xiaoda Liu, Dr. Peter Valko, Summer 2014, PETE 609-EOR
- 3. Abhishek Punase, Dr. Hisham Nasr-El-Din, Fall 2014, PETE 310-Reservoir Fluids
- 4. Abhishek Punase, Dr. Hisham Nasr-El-Din, Spring 2015, PETE 609/PETE 489-EOR
- 5. Xiaoda Liu, Dr. Peter Valko, Summer 2015, PETE 623-Waterflooding
- 6. Abhishek Punase, Dr. Berna Hascakir, Fall 2015, PETE 310-Reservoir Fluids
- 7. Matthew Morte, Dr. Berna Hascakir, Fall 2015, PETE 310-Reservoir Fluids
- 8. Matthew Morte, Dr. Berna Hascakir, Summer 2016, PETE 609/-EOR
- 9. Abhishek Punase, Dr. Berna Hascakir, Fall 2016, PETE 310-Reservoir Fluids
- 10. Taniya Kar, Dr. Berna Hascakir, Fall 2016, PETE 310-Reservoir Fluids
- 11. Matthew Morte, Dr. Berna Hascakir, Fall 2017, PETE 310-Reservoir Fluids
- 12. Kiran Nandlal, A New PhD Student, Fall 2017, PETE 310-Reservoir Fluids
- 13. Matthew Morte, Dr. Berna Hascakir, Spring 2019, PETE 314-Transport Processes in Petroleum Production

B.8. Internal Committees

Name, Advisor, Degree, Thesis/Dissertation Link

- 1. Paul Ofoche, Dr. Sam Noynaert, PhD, TBD
- 2. Mohammed Almobarky, Dr. David Schechter, PhD, TBD
- 3. Hessah Alrashidi, Dr. Hisham Nasr-El-Din, PhD, TBD
- 4. Omar S. Mahmoud, Dr. Hisham Nasr-El-Din, PhD, TBD
- 5. Ahmed M. Ibrahim, Dr. Hisham Nasr-El-Din, PhD, TBD
- 6. Jun Hong, Dr. Hisham Nasr-El-Din, MS, TBD
- 7. Tuan Phi, Dr. David Schechter, MS, LINK
- 8. Candan Unal, Dr. Hisham Nasr-El-Din, MS, LINK
- 9. Thanakrich Pummarapanthu, Dr. Hisham Nasr-El-Din, MS, LINK
- 10. Erick Martinez Antunez, Dr. David Schechter, MS, LINK
- 11. Salar Afra, Dr. Hisham Nasr-El-Din, MS, LINK
- 12. Aymen Abduljalil Jafar Alramadhan, Dr. David Schechter, MS, LINK
- 13. Adrian Sukal, Dr. Maria Barrufet, MEng
- 14. Hammad A. Irshad, Dr. Rashid Hasan, MEng

B.9. External Committees

Name, Advisor, Degree & Link, Institution

- 1. Konstantinos Christou, Dr. Vladimir Nikora, PhD-2018, School of Eng., The University of Aberdeen, UK
- 2. Robert Geiger, Dr. David Staack, PhD-LINK, Mechanical Engineering, Texas A&M University
- 3. Mehdi Majdi Yazdi, Dr. Jerry Jensen, PhD-02/24/2013 LINK, University of Calgary, Canada
- 4. Hongcai Wang, Dr. Reza Rezaee, PhD-LINK, Curtin University, Australia
- 5. Sebastian Smith, Dr. Julia Reece, MS, Geology & Geophysics, Texas A&M University
- 6. Noah Miller, Dr. Yuenfeng Sun, MS, Geology& Geophysics, Texas A&M University
- 7. Jingyi Guo, Dr. Yuefeng Sun, MS, Geology& Geophysics, Texas A&M University
- 8. Tyler F. Hussey, Dr. Xingmao Ma, MS, Civil Engineering, Texas A&M University
- 9. Ahmet Unal, Dr. Frederick Chester, MS-TBD, Geology & Geophysics, Texas A&M University
- 10. Harika Rao Damarla, Dr. David Staack, MS-LINK, Mechanical Engineering, Texas A&M University
- 11. Celal Bilgi, Dr. Erchin Serpedin, MS-LINK, Electrical Engineering, Texas A&M University
- 12. Selin Guven, Dr. Serhat Akin & Dr. Berna Hascakir, MSc-LINK, Middle East Technical University, Turkey

B.10. Opportunities Provided to Graduate or Undergraduate Level Students

Encouraging Graduate Level Students to Publish Independent Studies: The aim is to teach graduate level students on the selection of the right journal for their work, academic writing & publication ethics, working in teams to construct new ideas, and publishing an independent study by themselves. In total (among 18 groups), the manuscripts prepared by 4 groups have been published, please see the list of publications below. Because these published works are independent studies, my role is only to review their works and give some feedback on publication ethics. Hence, the listed authors are only graduate students and do not include any professors' name

- 1. Yousef, Z., AlDaif, H., Al Otaibi, M., An Overview of Steam Injection Projects in Fractured Carbonate Reservoirs in the Middle East, Journal of Petroleum Science Research (JPSR), Volume 3 Issue 3, July 2014. <u>LINK</u>
- 2. Alvarez, J., Hun S., Current Overview of Cyclic Steam Injection Process, Journal of Petroleum Science Research, Volume 2 Issue 3, July 2013, (The most downloaded article among all articles in this journal). <u>LINK</u>
- 3. Mukhametshina, A., Martynova, E., Electromagnetic Heating of Heavy Oil and Bitumen: A review of Experimental Studies and Field Applications, Journal of Petroleum Engineering, Volume 2013 (2013), Article ID 476519. LINK
- 4. Punase, A., Zou A., Elputranto, R. How Thermal Recovery Methods Affect Wettability Alteration?, Journal of Petroleum Engineering, Volume 2014. LINK

<u>Encouraging Undergraduate Research</u>: In total, 21 undergraduate students contributed the research studies over 5 years. We published 20 conference papers with these undergraduate students (the undergraduate students are highlighted with bold fonts in the listed papers below).

- 21. Alshaikh, M.*, Lee, Y.S.**, **Hascakir, B.**, Anionic Surfactant and Heavy Oil Interaction during Surfactant-Steam Process, *SPE Western Regional Meeting*, 23-26 April 2019, San Jose, California, USA, SPE-195254-MS. LINK
- 20. Liao, H., Morte, M., **Bloom, E.**, Huff, G., <u>Hascakir, B.</u>, Controlling Microwave Penetration and Absorption in Heavy Oil Reservoirs, SPE Western Regional Meeting, 22-27 April 2018, Garden Grove, California, USA, SPE-190089-MS. <u>LINK</u>
- 19. **Ng**, **A.**, Ovalles, C., Benson, I.P., <u>Hascakir</u>, <u>B.</u>, Asphaltenes Contribution in Emulsion Formation during Solvent-Steam Processes, SPE Western Regional Meeting, 22-27 April 2018, Garden Grove, California, USA, SPE-190057-MS. <u>LINK</u>
- 18. Ismail, N.B., **Seber, E.**, <u>Hascakir, B.</u>, Role of Aromatics Fraction of Crude Oil on In-Situ Combustion Performance, *SPE Improved Oil Recovery Conference (IOR 2018)*, 14-18 April 2018, Tulsa, OK, USA. SPE-190307-MS. <u>LINK</u>
- 17. Morte, M., **Bloom, E.**, Huff, G., <u>Hascakir, B.</u>, Factors Affecting Electromagnetic Wave Penetration in Heavy Oil Reservoirs, *SPE Canada Heavy Oil Technical Conference*, 13-14 March 2018, Calgary, Alberta, Canada. SPE-189746-MS. <u>LINK</u>
- 16. Ng, A., Hascakir, B., Asphaltenes Contribution in Emulsion Formation during Solvent-Steam Processes, SPE Western Regional Meeting, 22-27 April 2018, Garden Grove, California, USA, SPE-190057-MS. LINK
- 15. Ismail, N.B., **Seber, E.**, <u>Hascakir, B.</u>, Role of Aromatics Fraction of Crude Oil on In-Situ Combustion Performance, *SPE Improved Oil Recovery Conference (IOR 2018)*, 14-18 April 2018, Tulsa, OK, USA. SPE-190307-MS. <u>LINK</u>
- 14. Ng, A., Seber, E., Ovalles, C., Benson, I.P., <u>Hascakir, B.</u>, The Use of Asphaltenes Precipitants and Environmentally Friendly Solvents during Solvent-Steam Processes, *SPE/EAGE Tar Mats & Heavy Oil Workshop: Fluid Characterization and Development/Operational Challenges*, 30-31 Jan 2018, Dubai, UAE. <u>LINK</u>
- 13. Kar, T., **Nezhad, P.B.**, **Ng, A.Z.Y.**, Ovalles, C., Benson, I.P., <u>Hascakir</u>, <u>B.</u>, Mobilization of Trapped Residual Oil via Secondary SAGD with Propane, *SPE Western Regional Meeting*, 23-27 April 2017, Bakersfield, California, USA, SPE-185684-MS. <u>LINK</u>.
- 12. Ismail, N.B., Klock, K., <u>Hascakir, B.</u>, In-situ Combustion Experiences in Heavy Oil Carbonates, *SPE Canada Heavy Oil Technical Conference*, 7-9 June 2016, Calgary, Alberta, Canada, SPE-180724-MS. <u>LINK</u>.

- 11. Prakoso, A.A., **Klock, K.**, Punase, A., Rogel, E., Ovalles, C., <u>Hascakir, B.</u>, Determination of the Stability of Asphaltenes through Physicochemical Characterization of Asphaltenes, *SPE Western Regional Meeting*, 23-26 May 2016, Anchorage, Alaska, USA, SPE-180422-MS. LINK.
- 10. **Prakoso, A.**, Punase, A., <u>Hascakir, B.</u>, A Mechanistic Understanding of Asphaltene Precipitation from Varying Saturate Concentration Perspective, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 18-20 November 2015, Quito, ECUADOR, SPE-177280-MS. LINK.
- 9. **Kozlowski M.L.**, Punase, A., Nasr-El-Din, H., <u>Hascakir, B.</u>, The Catalytic Effect of Clay on In-Situ Combustion Performance, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 18-20 November 2015, Quito, ECUADOR, SPE-177166-MS. <u>LINK</u>.
- 8. **Klock, K.**, <u>Hascakir, B.</u>, Simplified Reaction Kinetics Model for In-Situ Combustion, *SPE Latin American and Caribbean Petroleum Engineering Conference*, 18-20 November 2015, Quito, ECUADOR, SPE-177134-MS. <u>LINK</u>.
- 7. Kar, T., **Kozlowski M.L.**, <u>Hascakir</u>, <u>B.</u>, Characterization of Kerogen for Green River Oil Shale, *The Sixth Annual Berg-Hughes Symposium*, 16 October 2015, Texas A&M University, College Station, Texas, USA. (POSTER).
- 6. **Kozlowski, M.**, Kar, T., <u>Hascakir, B.</u>, Ex-situ Extraction of Green River Oil Shale by Combustion, *Western States Section of the Combustion Institute Fall Meeting*, Provo, Utah, USA. October 5-6, 2015. 134IE-0051.
- 5. **Klock, K.**, Prakoso, A., Punase, A., <u>Hascakir, B.</u>, The combustion behavior of various hydrocarbons with complex molecular structures, *Western States Section of the Combustion Institute Fall Meeting*, Provo, Utah, USA. October 5-6, 2015. 134CK-0042.
- Kar, T., Yeoh, J., Ovalles, C., Rogel, E., Benson, I.P., <u>Hascakir, B.</u>, The Impact of Asphaltene Precipitation and Clay Migration on Wettability Alteration for Steam Assisted Gravity Drainage (SAGD) and Expanding Solvent SAGD (ES-SAGD), 2015 SPE Heavy Oil Conference, 9-11 June, 2015, Calgary, Alberta, Canada, SPE-174439-MS. <u>LINK</u>.
- 3. Kar, T., Williamson, M., Hascakir, B., The Role of Asphaltenes in Emulsions Formation for Steam Assisted Gravity Drainage (SAGD) and Expanding Solvent-SAGD (ES-SAGD), 2014 SPE Heavy and Extra Heavy Oil Conference-Latin America, 24-26 September 2014, Medellin, Colombia, SPE-171076-MS. LINK
- 2. **Morrow, A.**, Mukhametshina, A., Aleksandrov, D., <u>Hascakir, B.</u>, Environmental Impact of Bitumen Extraction with Thermal Recovery, *2014 SPE Heavy Oil Conference*, 10-12 June, 2014, Calgary, Alberta, Canada, SPE 170066-MS. <u>LINK</u>
- Mukhametshina, A., Morrow, A., Aleksandrov, D., Hascakir, B., Evaluation of Four Thermal Recovery Methods for Bitumen Extraction, 2014 SPE Western North America and Rock Mountain Joint Regional Meeting, 16-18 April 2014 Denver, CO, USA, SPE 169543-MS. LINK

Provided Internship and Research Positions:

- 1. Stanford University, School of Earth, Energy & Environmental Sciences, Summer Undergraduate Research in Geoscience & Engineering (SURGE) 2017. Student Name: Yunan Li
- 2. Schlumberger (1 grad student had a chance to have internship in Schlumberger Doll Center in Summer 2013 and part of the internship was completed at *Harvard University* Laboratories). Student Name: Assiya Suleimenova.
 - 3. Petroriver (1 undergraduate student had his internship in Summer 2013). Student Name: Hammad Ahmed Irshad

Students Awards:

- Texas A&M University Petroleum Engineering Department Student Paper Contest,
 - 1. The first place in BS division-Junior section among around 100 Junior students, January 2015 (Student Name: Kristina Klock)
 - 2. The third place in MS division among around 100 MS students, January 2015 (Student Name: Raphael Coelho)
 - 3. The first place in MS division among around 100 MS students, January 2014 (Student Name: Assiya Suleimenova)
- The Texas A&M University Petroleum Engineering Department Faculty Excellence Awards Outstanding Master of Science Award
 - 1. Albina Mukhametshina, May 2014
 - 2. Taniya Kar, May 2016
- Texas A&M University Geology Department, Annual Berg-Hughes Symposium Poster Competition
 - 1. Sudiptya Banerjee, 3rd Place, 7th Annual Berg-Hughes Symposium, 2016

SERVICE

A. UNIVERSITY and DEPARTMENTAL LEVEL SERVICE

- 1. Undergraduate Curriculum Committee, 2016-Cont.', Petroleum Eng. Department, Texas A&M University.
- 2. Engineering Faculty Advisory Council (EFAC), Sept.-2018-Sept. 2021 College of Engineering, Texas A&M University. LINK
- 3. Honors Program Coordinator for Petroleum Engineering, 2016-2017, College of Engineering, Texas A&M University, LINK
- 4. Vice Chair, Junior Engineering Faculty Advisory Council (JEFAC), 2015 Sept.-2017 College of Engineering, Texas A&M University. LINK
- 5. Undergraduate scholarship committee, 2014-2016, Texas A&M University, Petroleum Engineering Department.

B. PROFESSIONAL SERVICE

1. ABET (Accreditation Board for Engineering and Technology, Inc.) Engineering Accreditation Commission (EAC) Program Evaluator, 2018-Cont.'

C. EDITORIAL BOARD Total decision was made for 324 papers

- 1. Associate Editor in Journal of Petroleum Science and Engineering by Elsevier BV January 2014- August 2018., LINK
- 2. Managing Guest Editor for the Thermal EOR Special Issue of *Journal of Petroleum Science and Engineering* by Elsevier BV. This issue will be published online on July 1, 2018. LINK
- Managing Guest Editor for Enhanced Heavy Oil and Oil Shale Recovery Special Issue of Geosciences (ISSN 2076-3263) by Walter de Gruyter GmbH & Co. KG, <u>LINK</u>.
- Managing Guest Editor for the Thermal EOR Special Issue of Journal of Petroleum Science and Engineering by Elsevier BV. LINK

D. EXTERNAL COMMITTEE SERVICE

- Technical Program Committee for SPE ATCE, SPE Annual Conference and Exhibition, 30 September- 2 October 2019, Calgary Canada. LINK
- 2. The SPE Faculty Innovative Teaching Award Committee (October 2016-October 2019). LINK.
- 3. Technical Program Committee for Thermal EOR International Workshop, "Thermal Methods for Enhanced Oil Recovery: Laboratory Testing, Simulation and Oilfields Applications", 16-19 October 2018, Chengdu, China. LINK.
- Steering Committee, 2018 SPE/EAGE Tar Mats & Heavy Oil Workshop, 30-31 January 2018, Dubai, United Arab Emirates, LINK.
- 5. Technical Program Committee for SPE/IADC Middle East Drilling Technology Conference and Exhibition, 29-31 January 2018, Abu Dhabi, UAE. LINK.
- 6. Technical Program Committee for SPE Heavy Oil Technical Conference, 13-14 March 2018, Calgary, AB, Canada. LINK.
- 7. Technical Program Committee for Thermal EOR International Workshop, "Thermal Methods for Enhanced Oil Recovery: Laboratory Testing, Simulation and Oilfields Applications", 19-24 June 2017, Kazan, Russia. LINK
- 8. Technical Program Committee for SPE Heavy Oil Technical Conference, 15-16 February 2017, Calgary, AB, Canada. LINK.
- Technical Program Committee for SPE Latin America and Caribbean Heavy and Extra-Heavy Oil Conference, 19-20 October 2016, Lima, PERU. <u>LINK</u>
- 10. Technical Program Committee for Thermal EOR International Workshop, "Thermal Methods for Enhanced Oil Recovery: Laboratory Testing, Simulation and Oilfields Applications", 28 June-1 July 2016, Kazan, Russia. LINK.
- **E. REVIEWING/EDITING** (Quartile: Q1 means highest values and Q4 lowest values, <u>IF</u>: Impact Factor, <u>SJR</u>: <u>SCImago Journal Rank</u>, <u>H</u>: H index- Journal's number of articles (h) that have received at least h citations over the whole period.)

D.1. Journal Review (number of papers reviewed) Total 85 papers were reviewed

- 1. Energy &Fuel, (20 papers reviewed), Q1, <u>IF: 2.835</u>, SJR: 2353, H: 123. <u>LINK</u>
- 2. Journal of Petroleum Science and Engineering (18 papers reviewed), Q1, IF: 1.655, SJR: 4902, H: 61. LINK
- 3. Fuel, (15 papers reviewed) Q1, IF: 3.611, SJR: 1562, H: 137. LINK
- 4. Fuel Processing Technology, (10 papers reviewed), Q1, IF: 3.847, SJR: 2108, H: 98. LINK
- 5. International Journal of Oil, Gas, and Coal Technology (IJOGCT) (4 papers reviewed), Q2, IF: 0.464, SJR: 12930, H: 10. LINK
- 6. SPE Journal, (4 papers reviewed), Q1, IF: 1.442, SJR: 4244, H: 62. LINK
- 7. Industrial & Engineering Chemistry Research (2 paper reviewed), Q1, IF: 2.567, SJR: 4382, H: 161. LINK
- 8. Journal of Canadian Petroleum Technology (2 papers reviewed), Q1, IF: 0.744, SJR: 5288, H: 37. LINK
- 9. Combustion Science and Technology (2 papers reviewed), Q1, IF: 1.193, SJR: 4696, H: 56. LINK
- 10. Chemical Engineering Journal (2 papers reviewed), Q1, IF: 5.310, SJR: 1769, H: 117. LINK

- 11. Scientific Reports by Nature (1 paper reviewed), Q1, IF: 5.525, SJR: 1286, H: 69. LINK
- 12. SPE Reservoir Evaluation & Engineering, (1 paper reviewed), Q1, IF: 1.767, SJR: 3589, H: 47. LINK
- 13. Journal of Petroleum Exploration and Production Technology (1 paper reviewed), Q2, IF: 1.767, SJR: 12416, H: 6. LINK
- 14. Journal of Petroleum Engineering (1 paper reviewed), Not in the list of SJR. LINK
- 15. Catalysis Reviews (1 paper reviewed), Q1, IF: 7.526, SJR: 627, H: 77. LINK
- 16. Energy, (1 paper reviewed), Q1, IF: 4.292, SJR: 1016, H: 111. LINK
- 17. Journal of Energy Resources Technology, ASME (1 paper reviewed), Q2, IF: 1.347, SJR: 6917, H: 33. LINK
- 18. Transport in Porous Media, (1 paper reviewed), Q1, IF: 1.653, SJR: 5919, H: 57. LINK
- 19. Colloids and Surfaces A: Physicochemical and Engineering Aspects, (1 paper reviewed), Q2, <u>IF: 2.760</u>, SJR: 5331, H: 120. LINK

D.2. Research Funding Review (number of research proposals reviewed) Total 11 proposals were reviewed

- 20. Natural Science and Engineering Research Council of Canada (NSERC) (5 proposals reviewed), LINK
- 21. Canada Foundation for Innovation (1 proposal reviewed), LINK
- 22. Mitacs (3 proposals reviewed), LINK
- 23. American Chemical Society (ACS), Petroleum Research Fund (1 proposal reviewed), LINK
- 24. Research North Dakota Grant Program (2 proposal reviewed), LINK

F. CONSULTANCY

- 1. Emulsion control for thermal recovery, Pacific Rubiales Energy, Bogota, Colombia, Nov.2013- Nov.2014.
- 2. Saleski Pilot Plans, Husky Energy, Calgary, AB, June 5-6, 2012.
- 3. Field-scale Simulation of In-Situ Combustion for SUPLACY Oil Field, Schlumberger-Stanford University, 2008-2012.
- 4. In-Situ Combustion of Mexican Heavy Crude Oils with PEMEX-Stanford, 2008-2010.

G. MENTORING

- 1. Volunteer for Women in Engineering (WE) at Texas A&M University, LINK.
- 2. The Academy of Future Faculty (AFF) at Texas A&M University, LINK.
- 3. Combustion Institute, The Central States Section, Mentoring High School Teachers for grant proposal writing on combustion to encourage high school students involvement in research and for a college degree, July 2015-2016. LINK.
- 4. SPE Mentoring Program, 2013-cont.', LINK
- 5. WITSON to encourage women's education in science and engineering, Summer 2012, <u>LINK</u>