

Publications

Chemical and Petroleum Engineering Department

Year 2016

Journals

1. Muftah H. El-Naas, Zahoor M. Ismail, Mohamed H. Al-Marzouqi, "Correlating the physical solubility of CO₂ in several amines to the concentrations of amine groups", *Journal of Natural Gas Science and Engineering*, 34 (2016), 841 - 848.
2. M. Alnaqbi, M. Bufaroosha, M. Al-Marzouqi, "Portable analyzer for continuous monitoring of sulfur dioxide in gas stream based on amperometric detection and stabilized gravity-driven flow", *Sensors and Actuators B*, 225 (2016), 24-33.
3. Muhammad Z. Iqbal, Priyabrata Pal, Mohamad Shoaib, Ahmed A. Abdala (2016) "Efficient Removal of Basic Dyes using Graphene" *Desalination and Water Treatment* (accepted).
4. Muhammad Z. Iqbal, Ahmed A. Abdala, Vikas Mittal, Matthew W. Liberatore (2016) "Processable Conductive Graphene/Polyethylene Nanocomposites: Effects of graphene dispersion and polyethylene blending with oxidized polyethylene on rheology and microstructure" *Polymer* 98, 143-155.
5. Muhammad Z. Iqbal, Ahmed A. Abdala, Matthew W. Liberatore (2016) "Synthesis and Characterization of Polyethylene/Oxidized Polyethylene (PE/OPE) Blends and Role of OPE as a Viscosity Control" *Journal of Applied Polymer Science* 133, 43521-43532.
6. Khurshid, I., and Choe, J. 2016. Analysis of Carbon dioxide Temperature, its thermal disturbance and evaluating the formation damages during its injection in shallow, deep and high temperature reservoirs. *International Journal of Oil, Gas and Coal Technology* 11(2): 141-153 (Thomson Reuter Impact Factor: 0.508).
7. Khurshid, I., Aftab, Z., Khan, S. 2016. Managing and Optimizing CO₂ injection, Oil production and recovery factor from a reservoir. Accepted in *Gulf Pacific Journal of Business Administration*.
8. Khurshid, I., and Choe, J. 2016. An Analytical Model for Re-dissolution of Deposited Asphaltene in Porous Media during CO₂ Injection. Under review in *Fuel-Journal-Elsevier* (Thomson Reuter Impact Factor: 3.520).
9. Khurshid, I and Fujii, Y. 2016. Analysis of Formation Temperature, Thermal Stresses Reduction and its Effect on Formation Break-down Pressure during CO₂ Injection Activities. Under review in *International Journal of Rock Mechanics and Mining Sciences-Journal-Elsevier* (Thomson Reuter Impact Factor: 2.010).

10. Mamdouh T. Ghannam, Mohamed Y.E. Selim, Abdulrazag Y. Zekri and Nabil Esmail, "Experimental Investigation of the Yield Stress Measurements for Xanthan Solutions and Crude Oil-Xanthan Emulsions", *Petroleum Science and Technology* (2016).
11. Mamdouh T. Ghannam, Mohamed Y. E. Selim, "Rheological Properties of Water-in-Diesel Fuel Emulsions", *International Journal of Ambient Energy* 37, 1 (2016).
12. Mozumder, M.S., Mairpady, A., Mourad, A.-H.I. (2016) Polymeric nanobiocomposites for biomedical applications. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, published online on 23 Feb 2016 (DOI: 10.1002/jbm.b.33633). (SJR: 0.784, ISI IF: 2.881, citations: 1).
13. Mohammad Sayem Mozumder, Abdulrahman Alraeesi and Abdel-Hamid I. Mourad Awareness of UAE University Chemical Engineering Students on ABET Accreditation criterion/a-k outcomes linked to the course syllabi. *Merit Research Journal of Education and Review* 2016, 4(7): 101-112. (ISI Impact Factor: 0.264)
14. Mozumder, M.S., Mourad, A.-H.I., Mairpady, A., Pervez, H., Haque, M.E., (2016) Characterization of injection molded high-density polyethylene-titanium dioxide nanocomposites for biomedical applications. *International Journal of Polymer Science* (Submitted).
15. Mozumder, M.S., Mourad, A.-H.I., Riham, M.A., Pervez, H. Advances in solar panel coatings: A review. *Macromolecular Materials & Engineering* (Submitted)
16. Mozumder, M.S., Mourad, A.-H.I., Mairpady, A., Pervez, H., Kannuri, U.M., (2016) On the injection molding processing parameters of HDPE-TiO₂ nanocomposites. Under Preparation
17. Pervez, Hifsa, Mozumder, M. S., Mourad, A.-H.I. (2016) Optimization of Injection Molding Process Conditions while manufacturing HDPE/TiO₂ Nano-Composites, AES-ATEMA 29th Int. Conference, pp. 133 – 139.
18. N Ghasem, Enhanced teaching and student learning through a simulator-based course in chemical unit operations design, *European Journal of Engineering Education* 41 (4), 455-467
19. N Ghasem, M Al-Marzouqi, NA Rahim, Modeling and Simulation of CO₂ Stripping from Potassium Glycinate Solution Using Polymeric Membrane Contactor, *American Journal of Polymer Science* 6 (2), 29-38
20. N Ghasem, Review of Environmental Transport Phenomena, *Vadose Zone Journal* 15 (7)
21. Abu-Jdayil, Basim, Mamdouh Ghannam, and Mustafa S. Nasser. "The Modification of Rheological Properties of Bentonite-Water Dispersions with Cationic and Anionic Surfactants." *International Journal of Chemical Engineering and Applications* 7.2 (2016): 75.
22. Abu-Jdayil, Basim, Abdel-Hamid Mourad, and Atif Hussain. "Thermal and physical characteristics of polyester–scrap tire composites." *Construction and Building Materials* 105 (2016): 472-479.

23. Al-Saleh MH. Electrical, EMI shielding and Tensile Properties of PP/PE Blends Filled with GNP:CNT Hybrid Nanofiller. *Synthetic Metals*, 2016, 217, 322-330.
24. Al-Saleh MH, Abdul-Jawad S, Graphene Nanoplatelets/Polystyrene Nanocomposite: Dielectric and Charge Storage Behaviors, *Journal of Electronic Materials*, 2016, 45 (7), 3532-3539.
25. Al-Saleh MH, Electrical and Electromagnetic Interference Shielding Characteristics of GNP/UHMWPE Composites, *Journal of Physics D: Applied Physics*, 2016, 49 (19), 195302-195308.
26. Al-Saleh MH, Al-Saidi BA, Al-Zoubi RM. Experimental and Theoretical Analysis of the Mechanical and Thermal Properties of Carbon Nanotube/Acrylonitrile-Styrene-Butadiene Nanocomposites, *Polymer*, 2016, 89, 12-17.
27. Irshidat MR, Al-Saleh MH. Effect of using carbon nanotube modified epoxy on bond-slip behavior between concrete and FRP sheets. *Construction and Building Materials*, 2016, 105:511-518.
28. Al-Saleh MH, Irshidat MR. Effect of Viscosity Reducing Agent on the Properties of CNT/Epoxy Nanocomposites. *Journal of Polymer Engineering*, 2016, 36 (4), 407-412.
29. Al-Saleh MH, Carbon nanotube-filled polypropylene/polyethylene blends: compatibilization and electrical properties, *Polymer Bulletin*, 2016, 73 (4), 975-987.
30. Irshidat MR, Al-Saleh MH, Almashagbeh H. Effect of carbon nanotubes on strengthening of RC beams retrofitted with carbon fiber/epoxy composites, *Materials and Design*, 2016, 89: 225-234.
31. S. Al-Zuhair, S. Ashraf, S. Hisaindee, N. AlDarmaki, S. Battah, D. Svistunenko, B. Reeder, G. Stanway, A. Chaudhary (2016) Enzymatic Pre-treatment of Microalgae Cells for Enhanced Extraction of Proteins. *Engineering in Life Sciences*, In-Press
32. S. Al-Zuhair, M. Nabil, Y. Abdi, M. Al Sayyed, H. Taher (2016) High Concentration Phenol Removal Using Freshwater Microalgae. *International Journal of Biotechnology for Wellness Industries*, 5: 39-45
33. S. Al-Zuhair, M. Abujayyab, A. Khaleel (2016) Adsorption Kinetics of Ethyl Mercaptan Found in Commercially Available LPG in UAE. *Energy & Environmental Engineering*, 4: 7-14
34. S. Al-Zuhair, S. AlKetbi, M. Al-Marzouqi (2016) Regenerating diethanolamine aqueous Solution for CO₂ absorption using microalgae. *Industrial Biotechnology*, 12: 105-108

Conferences

1. Nasr, M. S., Zekri, A.Y., “Capitalizing on the Utilization of Associated Gas as an Alternative Source of Energy (Part II),” Annual Int'l Conference on Chemical Processes, Ecology & Environmental Engineering (ICCPEE'16) April 28-29, 2016 Pattaya (Thailand).
2. Khurshid, I. 2016. A numerical model to determine the optimal time ranges to start infill drilling in a mature reservoir. Accepted in 2nd International Conference on Rock Dynamics and Applications (RocDyn-2) to be held on 18-20 May 2016, Xiaohongshan, Wuhan China.
3. B. Abu-Jdayil, K. B. Alsayed Ahmed, M. Djama, M. Ghannam. The modifications of the rheological behaviour of Na-bentonite suspensions with chitosan biopolymer effect. 22nd International Congress of Chemical and Process Engineering CHISA 2016, 28-31 August, 2016, Prague / CZECH REPUBLIC.
4. Pervez, Hifsa, Mozumder, M. S., Mourad, A.-H.I. (2016) Optimization of injection molding parameters for HDPE/TiO₂ nanocomposites fabrication with multiple performance characteristics using the Taguchi method and Grey relational analysis, *Materials* 9(8): 710 (Published online on 22 August 2016: doi:10.3390/ma9080710) (SJR: 0.873, ISI IF: 2.728, citations: 0). (40% contribution)
5. Mozumder, M.S., Abdulrahman Alraeesi and Abdel-Hamid I. Mourad Awareness of UAE University Chemical Engineering Students on ABET Accreditation. EduTeach 2016-Canadian International Conference on Advances in Education, Teaching & Technology ”Challenges & Issues in Technological transformation” 16-17 July, 2016 , Toronto, Canada.
6. Mozumder, M.S., Mourad, A-H.I, Pervez, H, Mairpady, A. (2016) Manufacturing and performance assessment of injection molded HDPE-TiO₂ nanocomposites for biomedical applications: Effects of barrel temperature and residence time. 6th Global Experts Meeting on Nanomaterials and Nanotechnology, Dubai, UAE 21-23 April 2016.
7. The 30th Annual Society of Core Analysts Conference and Exhibition held in Snowmass Village, Colorado, USA, 21-26 of August, 2016.
8. Paper Title: “Contact angle and IFT measurements at elevated temperatures for evaluating wettability in a selected carbonate reservoir in the UAE”.
9. Abdul Rahim Nihmiya, Nayef Ghasem, Mohamed Al-Marzouqi, Effect of ethanol in water coagulation bath on PVDF hollow fiber membrane employed for CO₂ absorption UAEGSRC'16, Al-Ain 27-28 April 2016.
10. Basim Abu-Jdayil. Thermal Insulators Based on Local Fillers and Wastes. The First German-UAE Workshop on Energy and Water in the Gulf Cooperation Council Countries (EWGCC 2016), 12-14 April, 2016, RAK, UAE [Invited Speaker].
11. S. Al-Zuhair, S. Al-Ketbi, M. Djama, M. Al-Marzouqi (2016) Regeneration of amine solution using microalgae for absorption. 2nd World Chemistry Conference, Toronto, Canada

Patents

1. Basim Abu-Jdayil, **Abdel Hamid I Mourad** [Thermal insulation material](#)1. US patent No. US 9,399,740
2. S. Al-Zuhair, A. Al-Marzouqi, I. Ismail and H. Taher. Enzymatic Biodiesel Production from Lamb Meat Fat in Supercritical Condition, Canadian patent No. CA 2,796,105
3. M. El-Naas and S. Al-Zuhair. Process and System for the Treatment of Industrial and Petroleum Refinery Wastewater