

# Publications

## Mechanical Engineering Department

Year 2016

### *Journals*

1. Abdel-Hamid I. Mourad, Basim Abu-Jdayil, Atif Husain, Investigation on the Mechanical Behavior of Polyester-Scrap Tire Composites Construction & Building Materials, accepted for publication, Construction & Building Materials
2. Meriam Imane Babaghayou, Abdel-Hamid I. Mourad, Vicente Lorenzo, María Ulagares de la Orden, Joaquín Martínez Urreaga, Salem Fouad Chabira, Mohamed Sebaa, Photodegradation characterization and heterogeneity evaluation of the exposed and unexposed faces of stabilized and unstabilized LDPE films, Materials & Design, Volume 111, 5 December 2016, Pages 279-290 (corresponding author)
3. AH Bouzid, A-H. I. Mourad, A El Domiaty, Influence of Bauschinger effect on the residual contact pressure of hydraulically expanded tube-to-tubesheet joints, International Journal of Pressure Vessels and Piping, 146, 1–10, 2016, <http://dx.doi.org/10.1016/j.ijpvp.2016.07.002> (corresponding author)
4. K Djakhdane, A Dehbi, AHI Mourad, A Zaoui, P Picuno, The effect of sand wind, temperature and exposure time on tri-layer polyethylene film used as greenhouse roof, Volume 45, - Issue 8, Page 346-351, 2016, <http://dx.doi.org/10.1080/14658011.2016.1198860>
5. Imane Tiffour, Abdelkader Dehbi, Abdel-Hamid I. Mourad, Abdelkader Belfedal, Synthesis and characterization of a new organic semiconductor material, Materials Chemistry and Physics, [Volume 178](#), 1 August 2016, Pages 49–56 (corresponding author)
6. Hifsa Pervez, Mohammad S. Mozumder and Abdel-Hamid I. Mourad, Optimization of Injection Molding Parameters for HDPE/TiO<sub>2</sub> Nanocomposites Fabrication with Multiple Performance Characteristics Using the Taguchi Method and Grey Relational Analysis, Materials 2016, 9(8), 710; doi:[10.3390/ma9080710](https://doi.org/10.3390/ma9080710)
7. J Jamali, AHI Mourad, Y Fan, JT Wood, Through-thickness fracture behavior of unidirectional glass fibers/epoxy composites under various in-plane loading using the CTS test, Engineering Fracture Mechanics 156, 83-95, 2016, <http://dx.doi.org/10.1016/j.engfracmech.2016.01.016> (corresponding author)
8. Mohammad Sayem Mozumder, Anusha Mairpady, Abdel-Hamid I. Mourad, Review Article, Polymeric Nanobiocomposites for Biomedical Applications, Journal of Biomedical Materials Research: Part B- Applied Biomaterials, Version of Record online : 23 FEB 2016, DOI: 10.1002/jbm.b.33633
9. B Abu-Jdayil, AH I Mourad, A Hussain, Thermal and physical characteristics of polyester–scrap tire composites, Construction and Building Materials 105, 472- Volume 105, February 2016, Pages 472–479. <http://dx.doi.org/10.1016/j.conbuildmat.2015.12.180>

10. Mohammad Sayem Mozumder<sup>1</sup>, Abdulrahman Alraeesi<sup>1</sup> and Abdel-Hamid I. Mourad, Awareness of UAE University Chemical Engineering Students on ABET Accreditation criterion/a-k outcomes, Merit Research Journal of Education and Review (ISSN: 2350-2282) Vol. 4(7) pp. 101-112, July, 2016
11. Ali Hilal-Alnaqbi and Abdel-Hamid I. Mourad, Adsorption study of albumin bound bilirubin over date pits activated carbon, accepted for publication in Advanced Science Letters, 2016
12. B. Mathew, A. Alazzam, M. Abutayeh, I. Stiharu, 2016, Model-based analysis of a dielectrophoretic microfluidic device for field-flow fractionation, Journal of Separation Science, vol. 39, no. 4, pp. 3028 – 3036
13. B. Mathew, A. Alazzam, S. Khashan, B. El-Khasawneh, 2016, Path of microparticles in a microfluidic device employing dielectrophoresis for hyperlayer field-flow fractionation, Microsystem Technologies, vol. 22, no. 7, pp. 1721 – 1732

### *Conferences*

1. A. Hilal-Alnaqbi, S. Sivaloganathan, A-H. Ismail Mourad, Experience in teaching entrepreneurs using different approaches in capstone course in a master of engineering management program, *edulearn16 Proceedings*, pp. 8024-8035, 2016.
2. K. Djakhane, A. Dehbi, Abdel-Hamid I. Mourad, A. Zaoui, P. Picuno, Characterization of Low Density Polyethylene Films Subjected to Harsh Environmental Conditions, 29<sup>th</sup> International Symposium on Polymer Analysis and Characterization ISPAC, June 12-15, Nanyang Executive Center, Nanyang Technology University, Singapore
3. M.I. Babaghayou, A-H. I. Mourad, S.F. Chabira, M. Sebaa, A. Ochoa, V. Lorenzo, on the oxidation resistance of stabilized and unstabilized low density polyethylene films, 29<sup>th</sup> International Symposium on Polymer Analysis and Characterization ISPAC, June 12-15, Nanyang Executive Center, Nanyang Technology University, Singapore
4. Z.H. Zakaria, A.-H.I. Mourad, B.M. Abdel-Magid, On the durability prediction of frp composites, 29<sup>th</sup> International Symposium on Polymer Analysis and Characterization ISPAC, June 12-15, Nanyang Executive Center, Nanyang Technology University, Singapore
5. M. I. Babaghayou, A-H. I. Mourad, S. F. Chabira, M. Sebaa, Orientation based mechanical behavior assessment of LDPE greenhouse covering films
6. Abdel-Hamid Ismail Mourad, Omar Gamal Ayad, Ashfakur Rahman, Ali H. Alnaqbi, Basim I. Abu-Jdayil, Experimental Investigation of kevlar km2plus nano-reinforced laminated composite thermo-mechanical properties, July 17-21, 2016, Vancouver, British Columbia, Canada.
7. Pervez, Hifsa, Mozumder, M. S., Mourad, A.-H.I. (2016) Optimization of Injection Molding Process Conditions while manufacturing HDPE/TiO<sub>2</sub> Nano-Composites, AES-ATEMA 29<sup>th</sup> Int. Conference, pp. 133 – 139, 2016.

8. Mozumder, M.S., Mourad, A-H.I, Pervez, H, Mairpady, A. (2016) Manufacturing and performance assessment of injection molded HDPE-TiO<sub>2</sub> 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.
9. Abdel-Hamid Ismail Mourad, Omar Gamal Ayad, Ashfakur Rahman, Mohammed Ali Al Mansoori, Ahmed Mohammed Gafar, Maryam Hamad Al Kuwaiti, KEVLAR KM2Plus Nano Reinforced Laminated composite: Thermomechanical Behavior, IMS/8 International Conference on Materials Science & Engineering, American University of Sharjah, February 2-4, 2016.
10. Babaghayou Meriam Imane, Abdel-Hamid Ismail Mourad, Chabira Salem Fouad, Sebaa Mohamed, Comparative morphological study between natural photo-aged of two different LDPE green house covers, IMS/8 International Conference on Materials Science & Engineering, American University of Sharjah, February 2-4, 2016.
11. F. Alnaimat, E. Alhseinat, F. Banat, V. Mittal, Electromagnetic-Mechanical Desalination: Mathematical Modeling, Journal of desalination, 380, (2016), pp 75–84.
12. Samir Emam and M.A. Eltaher, Buckling and postbuckling of composite beams in hygrothermal environments, Composite Structures 152, 665–675, 2016.
13. M. A. Khorshidi, M. Shariati, Samir A. Emam, Postbuckling of functionally graded nanobeams based on modified couple stress theory under general beam theory, International Journal of Mechanical Sciences, 110, 160-169, 2016.
14. M. A. Eltaher, M.E. Khater, and Samir A. Emam, A review on nonlocal elastic models for bending, buckling, vibrations, and wave propagation of nanoscale beams, Applied Mathematical Modelling, 40, (4-5), 4109–4128, 2016.
15. A Hilal-alnaqbi, SAB Al-Omari, MYE Selim, Assessment of tree-leaves flakes mixed with crude glycerol as a bioenergy source, BioMed Research International, pp1-10, 2016.
16. MO Hamdan, MYE Selim, Performance of CI engine operating with hydrogen supplement co-combustion with jojoba methyl ester, International Journal of Hydrogen Energy, Volume 41, Issue 24, Pages 10255–10264, 2016.
17. HZ Abou-Ziyan, AHB Helali, MYE Selim, Enhancement of forced convection in wide cylindrical annular channel using rotating inner pipe with interrupted helical fins, International Journal of Heat and Mass Transfer 95, 996-1007, 2016
18. Mamdouh T Ghannam, Mohamed Y.E. Selim, Rheological properties of water-in-diesel fuel emulsions, International Journal of Ambient Energy, Volume 36, Issue 1, 2016.
19. Mamdouh T. Ghannam, Mohamed Y. E. Selim, Saud Aldajah, Hosam E. Saleh and Adel MM Hussien, Effect of blending on physiochemical properties of jojoba - diesel fuels, Biofuels, 1, pages 1-14, 2016.

20. MT Ghannam, MYE Selim, A Zekri, N Esmail, Experimental Investigation of the Yield Stress Measurements for Xanthan Solutions and Crude Oil-Xanthan Emulsions, *Petroleum Science and Technology* 1 (1), 1, 2016.

*Book Chapters*

1. B. Mathew and L. Weiss, MEMS Heat Exchangers, in *Materials and Failures in MEMS and NEMS* (eds. A. Tiwari and B. Raj), John Wiley & Sons, Inc., Hoboken, NJ, USA, pp. 63 – 120

*Patents*

- 1- Basim Abu-Jdayil, Abdel Hamid I Mourad [Thermal insulation material](#), US Patent 9,347,216, 2016
- 2- Mohamed Y. E. Selim, "Alternative Fuels for Transportation", Chapter title: LPG", Editor: A.S. Ramadhas, CRC Press / Taylors and Francis Group, USA, ISBN 978-1-4398195-7-9, 2016.