



Dr. Hazim Fadhil Abbas

Associate Professor

Chemical and Petrochemical Engineering

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Time at UoN: Since 2012

Marital Status: Married.

Ph.D.University of Malaya,Malaysia,2010 M.SC.University of Baghdad,Iraq,1996 B.SC.University of Technology,1989

Academic Qualifications

PhD, University of Malaya, 2012, Thermocatalytic Decomposition of Methane Using a Palm-Shell-Based Activated Carbon: Kinetic, Deactivation, Regeneration and Characterization Studies

Teaching Activities

Master course- Advanced thermodynamics, 2019/2020

Master course - Nanomaterials and nanotechnology, 2020/2021

Separation Processes II, 2012 continued

Petroleum Refining and Petrochemical, 2012 continued

Engineering economy, 2013-2018

Catalysis and Catalytic Processes

Research Activities

- Research Interests

Hydrogen Production

Pyrolysis of plastic material

Production of nanomaterials

- Publications

Article:

1. 2018 (27) Salam A. Mohammed, Lamya Al Amouria, Emad Yousifb, Ali Abd Ali, Fazal Maboodc, Hazim F. Abbas, Sausan Alyaqoobi (2018). Synthesis of NiO:V2O5 nanocomposite and its photocatalytic efficiency for methyl orange degradation. Heliyon. 4(3).
2. 2015 (25) Masoud Asedy, W.M.A.Wan Daud , Hazim F. Abbas (2015). Heterogeneous catalysts for advanced bio-fuel production through catalytic biomass pyrolysis vapor upgrading: A review. Royal Society of Chemistry Advances. 5, 22234-22255. (Impact factor: 3.708).
3. 2015 (24) Nasir Uddin, W.M.A.Wan Daud , Hazim F. Abbas (2015). Co-production of hydrogen and carbon nanofibers from methane decomposition over zeolite Y supported Ni catalysts. Energy Conversion and Management, 90, 218-229. (Impact Factor: 3.59)
4. 2015 (23) Mohammed Ashik, Hazzim F. Abbas , Wan Mohd Ashri Wan Daud (2015). Production of greenhouse gas free hydrogen by thermocatalytic decomposition of methane - A review Renewable & Sustainable Energy Reviews. 44 221-256. (Impact Factor: 5.51)
5. 2014 (22) Md. Nasir Uddin, W.M.A. Wan Daud, Hazzim F. Abbas (2014). Thermal Decomposition of Methane for Production of CO_x Free Hydrogen over Ni-Supported Y Zeolite Based Catalysts. Applied Mechanics and Materials 679, 194-199.
6. 2014 (21) Usman NF, Hazzim F. Abbas , Wan Mohd Ashri Wan Daud (2014). DRY REFORMING OF METHANE: INFLUENCE OF PROCESS PARAMETERS- A REVIEW. Renewable & Sustainable Energy Reviews. 45, 710-744. (Impact Factor: 5.51)
7. 2014 (20) Olumide B. Ayodele , Hazzim F. Abbas , Wan Mohd Ashri Wan Daud (2014).

Hydrodeoxygenation of stearic acid into normal and iso-octadecane biofuel with zeolite supported palladium-oxalate catalyst. *Energy and Fuels*. 28 (9), 5872–5881. (Impact Factor: 2.733)

8. 2014 (19) Amjed A. Ali , Hazzim F Abbas, W.M.A. Wan Daud. Production of Cox free hydrogen by the thermal decomposition of methane over activated carbon: Catalyst deactivation. *International Journal of Hydrogen Energy*. 39(17), 14783-14791. (Impact Factor: 2.93)

9. 2014 Olumide B. Ayodele , Olayinka S. Togunwab, Hazzim F. Abbas , Wan Mohd Ashri Wan Daud (2014). Preparation and characterization of alumina supported nickel-oxalate catalyst for the hydrodeoxygenation of olic acid into normal and iso-octadecane biofuel. *Energy Conversion and Management*. 88, 1104–1110. (Impact Factor: 3.59)

10. 2014 (17) Nasir Uddin, W.M.A.Wan Daud , Hazim F. Abbas (2014). Kinetics and deactivation mechanisms of the thermal decomposition of methane in hydrogen and carbon nanofiber Co-production over Ni-supported Y zeolite-based catalysts. *Energy Conversion and Management*. 87, 796–809. (Impact Factor: 3.59)

11. 2014 (16) Olumide B. Ayodele , Hazzim F. Abbas , Wan Mohd Ashri Wan Daud (2014). Preparation and characterization of zeolite supported fluoropalladium oxalate catalyst for hydrodeoxygenation of oleic acid into paraffinic fuel. *Ind. Eng. Chem. Res.* 53 (2), 650–657. (Impact Factor: 2.235)

12. 2014 (15) Amjed A. Ali, Hazzim F. Abbas, W.M.A. Wan Daud (2014). Hydrogen production via thermo-catalytic decomposition of methane over carbonaceous catalysts: Full factorial design. *International Journal of Hydrogen Energy*. 39 (13), 7004-7014. (Impact Factor: 2.93)

13. 2014 (14) O. B. Ayodele, Hazzim F. Abbas, Wan Mohd Ashri Wan Daud (2014). Hydrodeoxygenation of Shea butter to produce diesel-like fuel using acidified and basic Al₂O₃ supported molybdenum oxalate catalyst - with Aspen Hysys simulation study, *Energy Education Science and Technology Part A: Energy Science and Research*. 32(1): 383-396.

14. 2014 (13) Olumide B. Ayodele , Hazzim F. Abbas , Wan Mohd Ashri Wan Daud (2014). Catalytic upgrading of oleic acid into biofuel using Mo modified zeolite supported Ni oxalate catalyst functionalized with fluoride ion. *Energy Conversion and Management*. 88, 1111-1119 (Impact Factor: 3.59)

15. 2014 (12) Masoud Asedy, W.M.A.Wan Daud , Hazim F. Abbas (2014). Model compound approach to design process and select catalysts for in-situ bio-oil upgrading. *Renewable & Sustainable Energy Reviews*. 36, 286-303. (Impact Factor: 5.51)

16. 2014 (11) Olumide B. Ayodele , Hazzim F. Abbas , Wan Mohd Ashri Wan Daud (2014). Preparation and Characterization of Zeolite Supported Fluoro-palladium Oxalate Catalyst for Hydrodeoxygenation of Oleic Acid into Paraffinic Fuel. *Industrial & Engineering Chemistry Research*. 53 (2), 650–657. (Impact Factor: 2.235)
17. 2014 (10) Nasir Uddin, W.M.A.Wan Daud , Hazim F. Abbas (2014). Effects of pyrolysis parameters on hydrogen formations from biomass. *Royal Society of Chemistry*. 4, 10467-90. (Impact Factor: 2.562)
18. 2014 (9) Nasir Uddin, W.M.A.Wan Daud , Hazim F. Abbas (2014). Potential hydrogen and non-condensable gases production from biomass pyrolysis: Insights into the process variables. *Renewable and Sustainable Energy Reviews* 27, 204–224. (Impact Factor: 5.51)
19. 2011 (8) Hazzim F. Abbas, Inas F. Baker (2011). Thermocatalytic decomposition of methane using activated carbon: Studying the influence of process parameters using factorial design. *International Journal of Hydrogen Energy*. 36(15), 8985 -8993. (ISI-Q1 Journal). (Impact Factor: 2.93)
20. 2010 (7) Hazzim F. Abbas. and Daud, W.M.A.W. (2010). Hydrogen production by thermocatalytic decomposition of methane using a fixed bed activated carbon in a pilot scale unit: apparent kinetic, deactivation and diffusional limitation studies. *International Journal of Hydrogen Energy*. 35(22), 12268-12276. (ISI-Q1 Journal). (Impact Factor: 2.93)
21. 2010 (6) Hazzim F. Abbas and Daud, W.M.A.W. (2010). Influence of reactor material and activated carbon on the thermocatalytic decomposition of methane for hydrogen production. , *Applied Catalysis A: General*. 388(1-2), 232–239
22. 2010 (5) Hazzim F. Abbas and Daud, W.M.A.W. (2010). Hydrogen production by methane decomposition: A review. , *International Journal of Hydrogen Energy*. 35(3), 1160-1190.
23. 2010 (4) Hazzim F. Abbas and Daud, W.M.A.W. (2010). An experimental investigation into the CO₂ gasification of deactivated activated-carbon catalyst used for methane decomposition to produce hydrogen, *International Journal of Hydrogen Energy*. 35(1), 141-150.
24. 2009 (3) Hazzim F. Abbas and Daud, W.M.A.W. (2009). Thermocatalytic decomposition of methane for hydrogen production using activated carbon catalyst: Regeneration and characterization studies., *International Journal of Hydrogen Energy*. 34(19), 8034-8045.
25. 2009 (2) Hazzim F. Abbas and Daud, W.M.A.W. (2009). Deactivation of palm shell based activated carbon catalyst used for hydrogen production by thermocatalytic decomposition of methane. , *International Journal of Hydrogen Energy*. 34(15), 6231-6241
26. 2009 (1) Hazzim F. Abbas and Daud, W.M.A.W. Thermocatalytic decomposition of

methane using palm shell based activated carbon: kinetic and deactivation studies., Fuel Processing Technology. 90(9), 1167-1174

Faculty Administrative Experience

2019 - Present: Member of college promotion committee - College of Engineering

2014 - Present: Member of College Board - College of Engineering

2014 - Present: Chairman of Advising Committee in CEA - College of Engineering

Ref.: <https://www.unizwa.edu.om/staff/cea/hazim>