Name: **CHENG Chin Kui**

Address: Department of Chemical Engineering,
College of Engineering, Khalifa University,
Abu Dhabi, United Arab Emirates.

Telephone: +971 2 312 4657

Email: Cheng.kui@ku.ac.ae

Position: **Assoc. Professor/ h-index (Scopus) : 31**

Education

2011 **Ph.D The University of New South Wales**
School of Chemical Engineering
Sydney, NSW, AUSTRALIA

2004 **M.Sc. University of Alberta**
Department of Chemical and Materials Engineering
Edmonton, Alberta, CANADA

2002 **B. Eng. Universiti Teknologi Malaysia (1st Division)**
Faculty of Chemical and Natural Resources Engineering, Skudai, Johor

Employment History

2017 - 2019 **Deputy Dean of Research & Postgraduate Studies**
Universiti Malaysia Pahang (UMP)
Faculty of Chemical and Natural Resources Engineering
Kuantan, Pahang, MALAYSIA

2015 – 2020 **Associate Professor of Chemical Reaction Engineering**
Universiti Malaysia Pahang (UMP)
Faculty of Chemical and Natural Resources Engineering
Kuantan, Pahang, MALAYSIA

2011– 2015 **Senior Lecturer, Universiti Malaysia Pahang (UMP)**
Faculty of Chemical and Natural Resources Engineering
Kuantan, Pahang, MALAYSIA

2009–2011 **Teaching Assistant, The University of New South Wales (UNSW)**

- Marker for CEIC2004, Industrial Chemistry for Chemical Engineers (150 students)
- Marker for CEIC2002, Heat and Mass Transfer (150 students)

- Marker for CEIC2000, Material and Energy Systems (150 students)
- Tutor for CEIC1000, Product Engineering Design (150 students)

2004–2008 **Lecturer, Universiti Malaysia Pahang (UMP)**

Faculty of Chemical and Natural Resources Engineering

Kuantan, Pahang, MALAYSIA

- UMP's Academic advisor committee member (2007–2008)
- Team leader of BTech. Program (new degree program) (2008)
- Coordinator for final year Plant Design project (2005–2006)
- Lecturer for Material & Energy Balances, Chemical Reaction Engineering and Chemical Engineering Thermodynamics (2005–2008)
- Developed/ lecture Fuel Cell Technology course (2005–2006)
- Supervised 2 design projects and 6 final year undergraduate projects

2004 **Process Engineer, MewahOleo Ind. Sdn. Bhd.**

Pasir Gudang, Johore, MALAYSIA

- Maintaining and trouble-shooting 100 MT per annum throughput of a De-Smet palm oil refinery

2003–2004 **Teaching Assistant, University of Alberta**

- Tutor for Chemical Reaction Engineering and also Thermodynamics

Research Grants

- International level grant
  i. Ministry of Higher Education of Kingdom of Saudi Arabia with King Faisal University – Development of Materials and Reactors for Multiphase Catalytic Processes, Saudi currency Riyal 247,000 for 22 months starting April 2019. ***Member***
  ii. UIC171503 King Faisal University – RM16K funding for consumables, technical services. 2017. ***Leader***
  iii. UIC171502 Newton Fund Mobility Grant – University of Sheffield Hallam and Universiti Malaysia Pahang, RM65K from 2016 to 2017. ***Leader***
  iv. RDU181501 Malaysia Toray Science Fund – Conversion of POME into syngas via Catalytic Steam Reforming, RM20K from 2018 to 2020. ***Leader***
  v. RDU151501 Malaysia Toray Science Fund – Photocatalytic POME Degradation, RM20K from 2015 to 2017. ***Leader***
- National level grant
  vi. RDU191802 TRGS – Kinetic Study of Petrochemical Wastewater

Photoreforming using CDS Quantum Dots@$CoFe_2O_4/TiO_2$ Nanocomposite Catalysts in Fluidized Bed Irradiated with Floating White LED, RM519,000 from 2019 to 2022. ***Member***

vii. RDU190195 FRGS – Reaction Mechanism and Kinetic Study of Palm Oil Octenolysis for the Production of Bio-Renewable Polyurethane Feedstock, RM97,200 from 2019 to 2021. ***Member***

viii. RDU190197 FRGS – Reaction Kinetics and Mechanism of Glycerol Dry Reforming over Bimetallic Nickel-based Catalyst supported on Aluminum Dross, RM89,270 from 2019 to 2021. ***Member***

ix. RDU170116 FRGS – Kinetics, Reaction Mechanism and Stability of Sol-Gel Synthesized $LaNiO_3$ and $LaCoO_3$ Perovskite Catalysts for Syngas Formation from Steam Reforming of Palm Oil Mill Effluent (POME), RM85K from 2017 to 2019. ***Leader***

x. RDU170119 FRGS – Metal-Support Interaction Of Ni-Supported Palm Oil Fuel Ash Catalyst Produced From Self-Combustion Technique For Methane Cracking, RM84K from 2017 to 2019. ***Member***

xi. RDU151302 RACE – Kinetics Analysis of Catalytic Syngas Production from Glycerol, RM50K from 2015 to 2017. ***Leader***

xii. RDU150118 FRGS – The Mechanisms of Tailoring Catalysis Systems for Photoelectrochemical Reduction of CO_2, RM126.5K from 2015 to 2017. ***Member***

xiii. RDU140112 FRGS – Kinetics and Spectroscopic Analyses of Syngas Production from Glycerol Steam Reforming over 15wt%Ni/85wt% Alumina Catalyst, RM106K from 2014 to 2016. ***Leader***

xiv. RDU140141 FRGS – Fundamental Studies of Rare Earth Separation, RM121K from 2014 to 2017. ***Member***

xv. RDU140123 FRGS – Kinetic Modelling of The Synthesis of Sorbitol-Branched Polyester for The Production of Bio-based Polyurethane, RM120K from 2014 to 2016. ***Member***

xvi. RDU140138 FRGS – Fundamental Study of Fischer-Tropsch Reaction Mechanism over A Cobalt-based Catalyst, from 2014 to 2016. ***Member***

xvii. RDU130501 Sciencefund – Biogasoline production from biogas over rare-earth promoted cobalt catalysts, RM220K from 2013 to 2015. ***Leader***

xviii. RDU130108 FRGS – Synthesis of Novel Catalysts for Carbon Dioxide (CO_2)

Dry Reforming of Glycerol For Syngas Production Using Noble Metal-Based Catalysts Supported on Oxides, RM92,300 from 2013 to 2015. ***Member***

xix. RDU130136 FRGS – Elucidation of Thermal Degradation Kinetics of Polyphenols From Orthosiphon Stamineus, RM74,500 from 2013 to 2015. ***Member***

xx. RDU130101 FRGS – Reaction Mechanisms of Glycerol Oxidation to Produce Mesoxalic Acid From Biodiesel Waste, RM96,000 from 2013 to 2015. ***Member***

xxi. RDU120613 ERGS – A novel syngas production method via photoreforming of POME waste over TiO_2-supported noble metal doped photocatalysts, RM50K from 2012 to 2014. ***Leader***

xxii. RDU120613 ERGS – Direct catalytic conversion of natural gas into methanol via liquid phase room temperature oxidation, RM90K from 2012 to 2015. ***Member***

xxiii. RDU120611 ERGS – Overcoming the barrier of lower generation in microbial fuel cells by introducing new electrogens in anode and nanoparticles loaded cathode, RM50K from 2012 to 2014. ***Member***

xxiv. RDU120607 ERGS – The investigation of molecular solution chemistry linking to the thermodynamics properties of active pharmaceutical ingredient polymorph, RM90K from 2012 to 2015. ***Member***

xxv. RDU121001 KTP – Transfer of reactor modelling knowledge for intensifying the production in a petrochemical plant, RM138,375 from 2012 to 2014. ***Member***

xxvi. RDU121216 MTUN-CoE Grant – Catalyst synthesis from limestone catalyst for biodiesel and syngas production including the socio-economic assessment, RM150,930 from 2012 to 2014. ***Member***

xxvii. RDU120107 FRGS – Heterogeneous kinetic study and residue curve map (RCM) determination for the recovery of acrylic acid from the industrial wastewater via esterification, RM81,770 from 2012 to 2014. ***Member***

xxviii. RDU120112 FRGS – Formulation mechanism of photocatalyst and its kinetic study for CO_2 reduction, RM86,180 from 2012 to 2014. ***Member***

<u>Universiti Malaysia Pahang Internal Grant</u>

xxix. RDU1803174 – Study of Nickel Supported on Fibrous Mesoporous Silica for CO_2 Conversion. ***Member***

xxx. RDU1803110 – Food Waste Torrefaction and Pelletization for Solid Fuel

Production. ***Member***

xxxi. RDU180355 – Development of Oil Palm Empty Fruit Bunch Fiber Reinforced Epoxidized Palm Oil based Alkyd Nanocomposite. ***Member***

xxxii. RDU172202 – Catalytic Conversion of Palm Oil Mill Effluent into Biogasoline. ***Leader***

xxxiii. RDU170325 – An Application of Hydrothermal Process to Treat Palm Oil Mill Effluent (POME). ***Leader***

xxxiv. RDU160335 – Ethylene Production from Ethanol Dehydration over Zeolite-Y Catalyst. ***Leader***

xxxv. RDU1603152 – Hair-derived Hollow Carbon Microfiber as catalyst in Microfluidics Photocatalytic Reactor for The Removal of Organic Materials in Water. ***Member***

xxxvi. PGRS160371 – Preparation and Characterization of Facile Light Rare Earth Oxide Catalysts for Ethylene Production from Ethanol Dehydration. ***Leader***

xxxvii. PGRS160370 – Ethylene Production from Ethanol Dehyration over Fly Ash Zeolite Catalyst. ***Leader***

xxxviii. GRS1503140 – Kinetic Study of Synthesized Perovskite Type Oxides ($SmCoO_3$) for the Dry (CO_2) Reforming of CH_4. ***Leader***

xxxix. RDU150314 – Assessment of Pollution Dispersion from Gebeng Industrial Area. ***Member***

xl. GRS150330 – Photocatalysis Treatment of Organic Waste from POME over Metal-Doped TiO_2 Photocatalyst. ***Leader***

xli. RDU140315 – Synthesis and Characterization of EFB-Cliker Supported Nickel Catalyst for Syngas Production from Reactive Fluid Mixture of CO_2-CH_4. ***Leader***

xlii. RDU140368 – Seawater Corrosion Resistant Heat Transfer Agent (HTA) to Improve Water Evaporation in Solar Still. ***Member***

xliii. RDU140374 – Fundamental Investigation of Methane Dry Reforming Over Lanthanide-Group Promoted Co/Al_2O_3 Catalysts. ***Member***

xliv. RDU140313 – Kinetics and Mass Transfer of Esterification Diluted Acrylic Acid with 2-Ethyl Hexanol in A Tubular Packed Bed Reactor. ***Member***

xlv. RDU140322 – Development of Electrocatalyst for Air Cathode Microbial Fuel Cell for Power Generation and Simultaneous Treatment of POME. ***Member***

xlvi. RDU140328 – Simulating The Drug Delivery in Human Blood Streams by

Investigating The Solid-Liquid Flow Behaviour in Micro-Channels: An Experimental Approach. ***Member***

xlvii. GRS1403174 – Kinetics of Syngas Production from Glycerol Steam Reforming over Ni/Alumina Catalyst. ***Leader***

xlviii. GRS1403173 – Synthesis of Cobalt-based Promoted by Rare Earth Metals Catalysts for Kinetics Study of Biogas Reforming-Fischer Tropsch Coupled Reactions. ***Leader***

xlix. GRS140333 – Photo Treatment of Organic Waste over Modified Titania Photocatalyst. ***Leader***

l. RDU140369 – Simulation Studies of Rare Extraction System. ***Member***

li. RDU140316 – Investigation the Effect of Polymers-Surfactant Complexes on the Multiphase Flow in Microfluidics Applications. ***Member***

lii. GRS120357 – Dry Reforming of Methane Over Alumina-Supported Ni Catalyst. ***Leader***

liii. GRS120377 - Glycerol Dry Reforming using Limestone Catalyst. ***Leader***

liv. GRS120355 - Photo-Catalyst Treatment of Organic Waste from POME over metal-doped TiO_2 photocatalyst. ***Leader***

lv. GRS120384 - Glycerol Dry Reforming using Nickel Based Catalyst Doped with Rare Earth. ***Leader***

lvi. RDU120323 – An ultimate green route in harnessing H_2 fuel employing sunlight and water as reactants, RM39K from 2012 to 2014. ***Leader***

lvii. RDU120395 – Hydrodynamics of reactive liquid-liquid system: Extractive biodiesel synthesis column, RM38,400 from 2012 to 2014. ***Member***

lviii. RDU100395 – Development of multicomponent catalytic system for the conversion of non-edible oil feedstock to biodiesel, RM36.5K from 20l0 to 2012. ***Member***

lix. RDU070369 – Zeolite as an additive in enhancing the performance of absorption refrigeration system. 2007 to 2009. ***Member***

lx. RDU070302 – Essential oil production from patchouli (pogostemon cablin) and waste recovery, RM104K from 2007 to 2009. ***Member***

lxi. RDU050121 - Extraction of essential oil from jasmine flower using supercritical CO_2 method, RM20K from 2005 to 2007. ***Leader***

lxii. Enzymatic production of hydrogen from biomass, RM20K from 2007 to 2009. ***Member***

lxiii. Biopetrol production from vegetable oil, RM20K from 2007 to 2009. ***Member***

Consultation/ Technical work

- Dimethyl Disulfide (DMDS) decomposition study with PI (M) Sdn. Bhd. (2017).
- Formation of hydrate in pipelines study with Malchem (M) Sdn. Bhd. (2014).
- Scale-up study of a batch pilot scale esterification process with Petronas Research Sdn. Bhd. (2012).
- Experimental and CFD analysis of pressure drop across Johnson screen filter, a report submitted to Petronas MTBE Sdn. Bhd. (2012).
- Physicochemical analyses of used Amberlyst-15 catalyst, a report submitted to Petronas MTBE Sdn. Bhd. (2012).

Scholarly Activities

* Full profile is available at : https://publons.com/author/1197035/chin-kui-cheng#profile

Reviewer for the following journals:

- *Environmental Processes* by Springer
- *Journal of Analytical and Applied Pyrolysis* by Elsevier
- *Arabian Journal of Chemistry* by Elsevier
- *Powder Technology* by Elsevier
- *Resources, Conservation and Recycling* by Elsevier
- *Journal of the Taiwan Institute of Chemical Engineers* by Elsevier
- *Journal of Thermal Analysis and Calorimetry* by Springer
- *Renewable Energy Focus* by Elsevier
- *Neural Computing and Applications* by Springer
- *Biofuels* by Taylor and Francis
- *Catalysis Today* by Elsevier
- *Journal of the Association of Arab Universities for Basic and Applied Sciences* by Elsevier
- *Journal of The American Chemical Society* by ACS
- *Industrial & Engineering Chemistry Research* by ACS
- *Environmental Science & Technology* by ACS
- *Journal of Food Science and Technology* by Springer
- *Materials Chemistry and Physics* by Elsevier

- *Renewable Energy by* Elsevier
- *Journal of Power Sources* by Elsevier
- *Energy Conversion and Management* by Elsevier
- *Journal of Natural Gas Science and Engineering* by Elsevier
- *Chemical Engineering Research and Design* by Elsevier
- *Water, Air and Soil Pollution* by Springer
- *Research on Chemical Intermediates* by Springer
- *Applied Catalysis B: Environment* by Elsevier
- *Chemical Engineering Journal* by Elsevier
- *Biomass and Bioenergy* by Elsevier
- *Fuel* by Elsevier
- *RSC Advances* by Royal Society of Chemistry
- *Journal of Cleaner Production* by Elsevier
- *Journal of Environmental Chemical Engineering* by Elsevier
- *Journal of Water Process Engineering* by Elsevier
- *Engineering Science and Technology: An International Journal* by Elsevier
- *Journal of Energy Chemistry* by Elsevier
- *Journal of the Energy Institute* by Elsevier
- *International Journal of Hydrogen Energy* by Elsevier
- *Renewable and Sustainable Energy Reviews* by Elsevier
- *Journal of Industrial & Engineering Chemistry* by Elsevier
- *International Biodeterioration & Biodegradation Journal* by Elsevier
- *Materials & Design* by Elsevier
- *Materials Science & Engineering B* by Elsevier
- *Chinese Journal of Chemical Engineering* by Elsevier
- *Journal of Chemical Technology and Biotechnology* by John Wiley & Sons
- *Bulletin of Chemical Reaction Engineering and Catalysis* by UDN
- *International Journal of Chemical Reactor Engineering* by De Gruyter

Appointments:

International

- Visiting Professor, Prince of Songkla University, Thailand from February 10 to February 28, 2019

- Visiting Academics, King Mongkut's University of Technology, North Bangkok December 12 to 26, 2018
- Invited speaker, ProBioRefine seminar 2018 at Chulalongkorn University, 13 to 14 December 2018.
- Keynote Speaker, ICWEE-2018 International Conference on Waste Energy and Environment, 5th to 7th September 2018 Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
- Invited Lecture, King Mongkut's University of Technology, North Bangkok July 2018
- Assistant Subject Editor for International Journal of Hydrogen Energy (Elsevier, Q1)
- International Editorial Board member for Journal of Cleaner Production (Elsevier, Q1)
- Editorial Board member for Renewable Energy (Elsevier, Q1)
- Managing Guest Editor for Catalysis Today (Elsevier), International Journal of Hydrogen Energy (Elsevier), Journal of Environmental Chemical Engineering (Elsevier), Industrial & Engineering Chemistry Research (ACS) in conjunction with 4th ICCEIB 2018 Conference, Kuala Lumpur.
- Guest Editor for Bulletin of Chemical Reaction Engineering and Catalysis in conjunction with FluidsChE 2017
- Grant reviewer for Cancéropôle Grand Ouest, France 2016
- Editorial Board Member for Journal of Membrane and Separation Technology since 2016
- Guest Editor for Bulletin of Chemical Reaction Engineering and Catalysis in conjunction with FluidsChE 2015
- International reviewer for 22nd RSCE 2015 Conference, 24th-25th September 2015, Bangkok, Thailand
- International reviewer for 2016 3rd International Conference on Chemical and Food Engineering, April 8-9th 2016, Tokyo Japan
- Technical Program Committee member for 2016 International Conference on New Material and Chemical Industry (NMCI2016), Aug. 13th–15th, 2016, Suzhou, China
- International Conference on Chemical Engineering (ICCE'16) committee member. San Francisco, USA, 19-21 October, 2016
  (http://www.iaeng.org/WCECS2016/ICCE2016.html)

National

- Evaluator for YUTP research grant, UTP (since 2018 -)
- Technology program evaluator for MBOT Malaysia (2018 – 2019)

- Jury for Best Malaysian Journals, appointed by Ministry of Higher Education Malaysia (2018)
- FRGS grant evaluator for Ministry of Higher Education Malaysia 2019
- FRGS grant evaluator for Ministry of Higher Education Malaysia 2018
- FRGS grant evaluator for Ministry of Higher Education Malaysia 2017
- FRGS grant evaluator for Ministry of Higher Education Malaysia 2016
- Reviewer for 9th Regional Conference on Chemical Engineering
- Judge for MUCET 2015 Conference, Johor Bahru
- Thesis examiner for Monash University, Malaysia Campus
- Thesis examiner for UM, USM, UPM, UTM, UTP, UKM

Universiti Malaysia Pahang

- Deputy Dean of Research & Postgraduate Studies (2017 – 2019)
- MyRA and QS Ranking Data PIC (2017 – 2019)
- Team leader for MQA-02 documentation for PhD and Master programs
- Journal & Publication Committee, 1st ESChE 2019 Conference
- Internship Lead Coordinator (2015 – 2017)
- Chairperson for 5th ICCEIB 2020 Conference
- Chairperson for 4th ICCEIB 2018 Conference
- Editorial Board member for JCEIB journal
- Thesis examiner (Viva-voce, pre-viva and proposal defence)
- Grant evaluator for UMP
- Treasurer for 2nd FluidsChE 2017 Conference
- Secretary for 1st FluidsChE 2015 Conference
- Committee for 2nd ICCEIB 2013 Conference
- Committee for SOMChE-ICCEIB 2011 Conference

Awards/ Scholarships

- MRSA Recipient by Ministry of Education, Malaysia 2018 (Reviewer category)
- Anugerah Cendekia Bitara (Publication Category), Universiti Malaysia Pahang (2018)
- Outstanding Reviewers by numerous Elsevier journals (since 2016)
- Best Supervisor Award 2017, Institute of Postgraduate Studies, Universiti Malaysia Pahang (2017).
- Anugerah Cendekia Bitara (Publication Category), Universiti Malaysia Pahang (2017)

- Anugerah Sanjungan, (Publication Category), Universiti Malaysia Pahang (2017)
- Best Chairman Award 2016, Institute of Postgraduate Studies, Universiti Malaysia Pahang (2016).
- Anugerah Cendekia Bitara (Publication Category), Universiti Malaysia Pahang (2016)
- Anugerah Sanjungan, (Publication Category), Universiti Malaysia Pahang (2016)
- Bronze medal (3 bronze medals), CITReX 2016 Universiti Malaysia Pahang (2016)
- Special Award and Gold Award at Kaoshiung International Exhibition, Kaoshiung Taiwan (2016)
- Gold Medal, i-Envex-UniMAP (2015)
- Anugerah Cendekia Bitara (Publication Category), Universiti Malaysia Pahang (2015)
- Anugerah Sanjungan, (Publication Category), Universiti Malaysia Pahang (2015)
- Anugerah Sanjungan, (Exhibition Category), Universiti Malaysia Pahang (2015)
- Best Paper Award, 27th International Symposium of Chemical Engineering, KL (2014)
- Best Paper Award (Chemical Category), MUCET 2014, Melaka (2014)
- Excellent Award for the categories "Patent & Exhibition", "Research Grant", "Publication" and "Teaching & Learning", FKKSA UMP (2014)
- Silver Medal, MTE 2014, PWTC KL Malaysia (2014)
- Third Prize Best Paper Award (Energy Category), ICCEIB 2013, Kuantan (2013)
- Grand Prize for Shell-Inter Paper Presentation, UTM-SPEC, Skudai (2013)
- Grand Prize Winner for IEM Chemical Engineering Research Paper Competition, Chemical Engineering Technical Division IEM, KL (2013)
- Bronze Medal, PECIPTA 2013, KL Malaysia (2013)
- MUCET 2012 Gold Award (Research Paper), MUCET 2012, Perlis Malaysia (2012)
- University International Postgraduate Award, UNSW (2008–2011)
- Best poster presentation, TOCAT6 Sapporo Japan (2010)
- Young Researcher Travel Award, ISCRE Philadelphia (2010)
- PRSS Travel Bursary, UNSW (2010)
- Excellent Service Award, Universiti Malaysia Pahang (2006 & 2007)
- Postgraduate Scholarship, University of Alberta (2002–2004)
- Captain Thomas Farrell Greenhalgh Memorial Graduate Award, University of Alberta (2002 & 2003)
- KLK Scholarship, KLK Corporation Malaysia (1998–2002)
- Dean's List, Universiti Teknologi Malaysia (1998–2002)

Professional Membership

- Member of AIChE (9900124086)
- Associate member of IChemE, UK (99949867) – Interview stage (June, 2019)
- Associate member of Energy Institute, UK
- Board of Engineers, Malaysia
- Institution of Engineers, Malaysia
- Professional Technologist, MBOT

Postgraduate Supervision (Graduated as Main SV)

1. Ayodele Bamidele Victor, "Catalyst Development for Dry Reforming of Natural Gas for The Production of Gasoline" (PhD. Chem Eng)
2. Ng Kim Hoong, "Photopolishing of POME over Titania and ZnO Photocatalysts" (PhD. Chem Eng)
3. Nor Shahirah Mohd Nasir, "Kinetics of Syngas Production from Glycerol Pyrolysis over Ni/Al_2O_3 Catalyst" (PhD. Chem Eng)
4. Osazuwa Osarieme Uyi, "Syngas from Methane Dry Reforming over $SmCoO_3$ Perovskite Catalyst" (PhD Chem Eng)
5. Chong Soo Ling, "Ethanol Dehydration over H_3PO_4-Promoted CeO_2 Catalyst" (MSc)
6. Soh Jiah Chee, "Ethanol Dehydration over H_3PO_4-modified Zeolite Y" (MSc)
7. Kong Zi Ying, "Application of $CuFe_2O_4$ For Photocatalytic Fenton Degradation of Glycerol" (MEng. Chem Eng)
8. Mohd Rizauddin Deraman, "Synthesis and Characterization of Pt/TiO_2 and Ag/TiO_2 for Photo-catalytic Degradation of Pre-treated Palm Oil Mill Effluent" (MEng. Chem Eng)
9. Nor Shahirah Bt Mohd Nasir, "Scale-Up and Optimization of Bioethanol Production from Palm Oil Sap" (MEng. Chem Eng)
10. Siew Kah Weng, "Synthesis and Characterization of $La\text{-}Ni/Al_2O_3$ Catalysts for Glycerol Dry Reforming" (MEng. Chem Eng)
11. Lee Hua Chyn, "Synthesis and Characterization of Cement Clinker-Supported Nickel Catalyst for Glycerol Dry Reforming" (MEng. Chem Eng)

Postgraduate Supervision (Graduated as Co-SV)

12. Md. Rahim Uddin, "Photocatalysis Development for CO_2 Conversion" (MEng. Chem

Eng)

13. Liew Rock Kee, "Pyrolysis of Fruit Peels Wastes to Biochar as Potential Catalyst Support Material" (MSc, Universiti Malaysia Terengganu)
14. Mohammed Amirul Islam, "Electricity Generation from POME using Microbial Fuel Cell Technology" (PhD Chem Eng)
15. Mohammed Anwar Hossain, "Synthesis and Characterization of rare earth metal-doped Catalysts for the Production of Biogasoline from POME" (PhD Chem Eng)

Postgraduate Supervision (On-Going as Main SV)

16. Ashwin Charles Benedict, "Photocatalytic treatment of POME" (PhD. Chem Eng)
17. Cheng Yoke Wang, "Steam Reforming of POME" (PhD. Chem Eng)

Postgraduate Supervision (On-Going as Co-SV)

18. Liew Rock Kee, (PhD, Universiti Malaysia Terengganu)
19. Cornelius Basil Tien Loong Lee, "Application of DES with ultrasound to convert sugars from oil palm fronds to furanic derivatives" (MSc. Eng., Monash University)
20. Lee Zhan Sheng (PhD, Universiti Malaysia Pahang)

Undergraduate Supervision

1. Rhakesh s/o Ghandi, "Thermodynamic Analysis of Hydrothermal Treatment of POME" (2018/2019)
2. Cheng Yoke Wang, "Application of WO_3 in Photocatalytic treatment of POME" (2016/2017).
3. Chang Ying Shi, "Application of $SrCoO_3$ Perovskite in Methane Dry Reforming" (2016/2017).
4. Jagathees Kumar s/o Sanna Moorthy, "Methane Dry Reforming over La_2O_3 supported Cobalt Catalyst (2015/2016)
5. Dhijeedthiran Naidu s/o Chandren, "Production of H_2-rich Syngas via Catalytic Pyrolysis of Glycerol using La-Ni/Al_2O_3 Catalyst" (2015)
6. Lim Lit Woon, "Light Hydrocarbon Production from Ethanol over 20wt%Co/80wt%CeO_2 and 20wt%Co/80wt%La_2O_3 Catalysts (2015).
7. Lee Chea Hui, "Photocatalytic Degradation of Palm Oil Mill Effluent (POME) over Ag/TiO_2 Catalyst (2015).
8. Fayizah binti Yasin, "Ethylene Production from Ethanol over Lanthanum Promoted

Nickel Magnesium Oxide Catalyst" (2014/2015).

9. Geet Govind A/L Asokumar, "Hydrogen from Glycerol Pyrolysis" (2014/2015).
10. Wong Nyap Xiang, "Synthesis and Characterization of $MgFe_2O_4$ Photocatalyst" (2014/2015).
11. Chan Han Jie, "Synthesis and Characterization of EFB Clinker supported Nickel and Cobalt Catalysts for Methane Dry Reforming" (2014/2015).
12. Tan Sze Yee, "Evaluative Study of Glycerol Photocatalytic Degradation over $CuFe_2O_4$ and La-$CuFe_2O_4$ Photocatalysts (2014/2015).
13. Lum Sin Wan, "Photodegradation of Methylene Blue and Glycerol Solution over $CuFe_2O_4$" (2014/2015).
14. Shaik Ismail Mohd Ali, "Cerium and Lathanum Promoted Ni/MgO Catalyst for Methane Dry Reforming" (2013/2014).
15. Tan Wei Jian, "Cerium Promoted Ni/MgO Catalyst for Glycerol Reforming" (2013/2014).
16. Tee Chin Chow, "Cerium Promoted Ni/MgO Catalyst for Biogas Dry Reforming" (2013/2014).
17. Ang Chun How, "Photocatalysis of glycerol solution" (2013/2014).
18. Chong Soo Kee, "A study into the roles of Cu/TiO_2 photocatalysts in the methylene blue photodecomposition and water photo-splitting" (2013/2014).
19. Ng Kim Hoong, "Synthesis and characterization of Cu/TiO_2 for phototreatment of POME" (2013/2014).
20. Ong Chen Loong, "Synthesis and characterization of Co/MgO catalyst of methane dry reforming" (2013/2014).
21. Ho Kah Sing, "Characterization of Pt-Sn/Al_2O_3 catalyst and coke formation during propane dehydrogenation" (2012/2013).
22. Joanna Chye Jo Ean, "Physicochemical characterization and carbon gasification analysis of used propane dehydrogenation catalyst" (2012/2013).
23. Latifah Sakinah bt Ismail, "Thermodynamic analysis of glycerol dry reforming" (2012/2013).
24. Kong Zi Ying, "Thermodynamic analysis of methane dry reforming" (2012/2013).
25. Nuruaini Nurazaman, "Photocatalysis of glycerol at ambient condition over Pt/TiO_2 catalyst" (2012/2013).
26. Qurratuaini Hassanusi, "Thermodynamic study of propane dehydrogenation into propylene" (2012/2013).

27. Norzaini bin Abd. Rahim "Physicochemical characterization of Ni/Al_2O_3 and La promoted Ni/Al_2O_3 catalyst for methane dry reforming" (2012/2013).
28. Leong Nguk Foong, "A study on microwave-assisted extraction of patchouli essential oil: effect of hexane as solvent" (2008).
29. Munirah binti Abdul Latif, "Extraction of jasmine essential oil using microwave extraction method" (2008).
30. Muhd Zahiruddin bin Shukor, "Extraction of essential oils from patchouli leaves using ultrasonic-assisted solvent extraction method" (2008).
31. Ahmad Kamal Masrur, "Microwave assisted extraction of patchouli essential oil using ethanol as solvent" (2008).
32. Muhamad Faizal Ahmad Fuad, "Synthesis of biodiesel from triglyceride" (2006).
33. Mohd Faisal Sulong @ A Rashid, "Extraction of essential oils from jasmine flower using solvent extraction method" (2006).
34. Jessica bt Federick Lamhai, "Extraction of essential oils from jasmine flower using supercritical CO_2 method" (2006).
35. Norulshahida binto Che Din, "Extraction of essential oils from jasmine flower using supercritical CO_2 co-solvent extraction" (2006).

Plant Design Supervision

1. Production of 100,000 MT/annum of propylene glycol methyl ether (2018/2019)
2. Production of 200,000 MT/annum of BTX from Pygas (2017/2018)
3. Production of 50,000 MT/annum of formalin (2015/2016)
4. Production of 50,000 MT/annum of maleic anhydride (2014/2015)
5. Production of 100,000 MT/annum of ethylbenzene (2013/2014)
6. Production of 25,000 MT/annum of chlorine gas (2012/2013)
7. Production of 200,000 MT/annum of phenol (2012)
8. Production of ammonia (2007)
9. Production of methanol (2006)

External Thesis Examiner (Excluding Uni Malaysia Pahang)

1. Nur Azeanni Abd Ghani (2019) "Dry reforming of methane for syngas production over Ni-Co doped Zr-Nb Catalysts" (Master, Universiti Teknologi PETRONAS)
2. Muhammad Fadhli Bin Kamaruzaman (2019) "Penghasilan diesel hijau berasaskan asid lemak sawit tersuling (PFAD)" (MSc thesis, UKM Malaysia)

3. Leena Bora (2018) “Development of photocatalysts for effective utilization of solar energy for waste water treatment” (PhD thesis, Nirma University, Ahmedabad, India)
4. Basem Mohammed Ali (2018) “Characterization and evaluation of CeO_2-MgO mixed oxide supported Ni catalyst for dry reforming of methane” (Master, Universiti Teknologi PETRONAS).
5. Phoon Bao Lee (2018) “Electrophoretic deposition of TiO_2 and $SrTiO_3$ nanoparticles as photocatalyst for water splitting” (Master of Science, University of Malaya).
6. Nur Aziera Bt Jumat (2018) “Photocatalytic Property of Polyaniline-TiO_2-Fe_3O_4 Nanocomposites for Photodegradation of Reactive Black 5 Dyes” (Master of Science, University of Malaya)
7. Tharani a/p Kulandaivalu (2018) “Visible Light assisted Photoreduction of CO_2 to Ethane using Cu_2O/GQD Nanocomposite Photocatalysts” (Master of Science, Universiti Putra Malaysia)
8. Wuen Pei Cathie Lee (2017) "Development and Investigations of Molybdenum Disulphide-Bismuth-based Composite Materials for Visible-Light Photocatalysis" (PhD thesis, Monash University)
9. Nurfhami Fauzi (2017) “The Effects of Organosolv Pretreatment on Bioethanol Production from Palm Empty Fruit Bunch (PEFB) as a Potential Solid Bioethanol” (Master of Science, University of Malaya)
10. Nadzidah Bt Yusof (2017) “Catalytic Methanation of Carbon Monoxide over Various Cobalt Loaded on Fibrous Silica KCC-1” (Master of Philosophy, Universiti Teknologi Malaysia)
11. Salam Hussein Hayder (2017) “Esterification of Palm Fatty Acid Distillate (PFAD) by using Manganese oxide and Nickel Oxide supported on Zirconia, Alumina for Biodieself Production” (Master of Science, Universiti Putra Malaysia)
12. Wennie Subramonian (2016) “Integrated Treatment Process of Pulp and Paper Mill Effluent using Coagulation and Heterogeneous Photocatalysis” (PhD thesis, Monash University)

List of Publications (2005–present)

Book:

O. U. Osazuwa, C. K. Cheng, "Catalytic Conversion of Greenhouse Gases", Reference Module in Materials Sciences and Materials Engineering (2018), https://doi.org/10.1016/B978-0-12-803581-8.11032-X,Elsevier.

C.K. Cheng, Karl T. Chuang, J. Luo, "PBI Fuel Cells for Hydrocarbon Conversion: Concepts and Applications", Lambert Academic Publishing (2012), ISBN-10: 3659213802.

Journal Publications:

1. K. H. Ng, Y. S. Gan, C. K. Cheng, K. H. Liu, S. T. Liong, "Integration of Machine Learning-based Prediction for Enhanced Model's Generalization: Application in Photocatalytic Polishing of Palm Oil Mill Effluent (POME)", *Environmental Pollution*, **Article in press** (2020), Q1
2. Man Huan Su et al., "Simultaneous removal of toxic ammonia and lettuce cultivation in aquaponic system using microwave pyrolysis biochar", *J Hazardous Materials*, **396**, pp. 122610 (2020), Q1
3. L. S. Yuan et al., "Photocatalytic Remediation of Organic Waste over Keggin-based Polyoxometalate Materials: A Review", *Chemosphere*, **Article in press** (2020), Q1
4. Ratchaprapa Raksasat et al., "A review of organic waste enrichment for inducing palatability of black soldier fly larvae: Wastes to valuable resources" *Environmental Pollution*, **Article in press** (2020), Q1
5. Muhammad Sheraz Ahmad et al., "Effect of reaction conditions on the lifetime of SAPO-34 catalysts in methanol to olefins process – A review", *FUEL*, **283**, pp. 118851 (2021), Q1
6. Bamidele Victor Ayodele et al., "Modeling the effect of process parameters on the photocatalytic degradation of organic pollutants using artificial neural networks", *Process Safety & Environmental Protection*, **145**, pp. 120 – 132 (2021)
7. K. H. Ng, S. Y. Lai, C. K. Cheng, K. Chen, C. Fang, "TiO_2 and ZnO Photocatalytic Treatment of Palm Oil Mill Effluent (POME) and Feasibility of Renewable Energy Generation: A Short Review", *J. Cleaner Production*, **Article in press** (2019), Q1.
8. N. Akkharaphatthawon, N. Chanlek, C. K. Cheng, M. Chareopanich, J. Limtrakul, T. Witoon, "Tuning Adsorption Properties of $Ca_xIn_{2-x}O_3$ Catalysts for Enhancement of Methanol Synthesis Activity from CO_2 Hydrogenation at High Reaction Temperature", *Applied Surface Science*, **489**, pp. 278–286 (2019), Q1.

9. T. Numpilai, N. Chanlek, Y. P.-Arporn, S. Wannapaiboon, C. K. Cheng, A.-N. Nuchanart, S. Thana, K. Paisan, M. Chareonpanich, G. Rupprechter, J. Limtrakul, T. Witoon," Pore Size Effects on Physicochemical Properties of Fe-Co/K-Al_2O_3 Catalysts and Their Catalytic Activity in CO_2 Hydrogenation to Light Olefins", *Applied Surface Science*, **483**, pp. 581–592 (2019), Q1.
10. Z. S. Lee, S. Y. Chin, J. W. Lim, T. Witoon, C. K. Cheng, "Treatment Technologies of Palm Oil Mill Effluent (POME) and Olive Mill Wastewater (OMW): A Brief Review", *Environ. Tech. Innovation*, **15**, 100377 (2019).
11. C. Y. Wong, S. S. Rosli, Y. Uemura, Y. C. Ho, A. Leejeerajumnean, W. Kiatkittipong, C. K. Cheng, M. K. Lam, J. W. Lim, "Potential Protein and Biodiesel Sources From Black Soldier Fly Larvae: Insights of Larval Harvesting Instar and Fermented Feeding Medium", *Energies*, **12(8)**, pp. 1570 (2019), Q2.
12. Z. S. Lee, S. Y. Chin, C. K. Cheng, "An Evaluation of Subcritical Hydrothermal Treatment of End-of-Pipe Palm Oil Mill Effluent", *Heliyon*, **5(6)**, 2019.
13. M. A. Islam, B. Ehiraj, C. K. Cheng, B. N. Dubey, M. R. Khan, "Biofilm re-vitalization using Hydrodynamic Shear Stress for Stable Power Generation in Microbial Fuel Cell", J. *Electroanalytical Chemistry*, 844, pp. 14–22 (2019), Q2.
14. Y. W. Cheng, M. R. Khan, K. H. Ng, S. Wongsakulphasatch, C. K. Cheng, "Harnessing Renewable Hydrogen-Rich Syngas From Valorization of Palm Oil Mill Effluent (POME) using Steam Reforming Technique", *Renewable Energy*, **138**, pp. 1114 - 1126 (2019), Q1.
15. S. S. Rosli, J. W. Lim, K. Jumbri, M. K. Lam, Y. Uemura, C. D. Ho, W. N. Tan, C. K. Cheng, "Modeling to Enhance Attached Microalga Biomass Growth Onto Fluidized Beds Packed in Nutrient-Rich Wastewater whilst simultaneously Biofixing CO_2 into Lipid for Biodiesel Production", *Energy Conversion and Management*, **185**, pp. 1- 10 (2019), Q1.
16. Y. W. Cheng, K. H. Ng, S. S. Lam, J. W. Lim, S. Wongsakulphasatch, T. Witoon, C. K. Cheng, "Syngas from Catalytic Steam Reforming of Palm Oil Mill Effluent: An Optimization Study", *International J Hydrogen Energy*, **44(18)**, pp. 9220 - 9326 (2019), Q1.
17. Sk. S. Hossain, J. Saleem, S. Rahman, S. M. J. Zaidi, G. McKay, C. K. Cheng, "Synthesis and Evaluation of Copper-supported Titanium Oxide Nanotubes as Electrocatalyst for The Electrochemical Reduction of Carbon Dioxide to Organics", *Catalysts*, **9(3)**, pp. 298 (2019), Q1.
18. W. Kaewprachum, S. Wongsakulphasatch, W. Kiatkittipong, A. Striolo, C. K. Cheng, S. Assabumrungrat, "SDS modified Mesoporous Silica MCM-41 for the Adsorption of Cu^{2+},

Cd^{2+}, Zn^{2+} from aqueous systems", *Journal of Environmental Chemical Engineering*, **Article in press** (2019).

19. A. Charles, M. R. Khan, K. H. Ng, T. Y. Wu, J. W. Lim, S. Wongsakulphasatch, T. Witoon, C. K. Cheng, "Facile Synthesis of $CaFe_2O_4$ for Visible Light Driven Treatment of Polluting Palm Oil Mill Effluent: Photokinetic and Scavenging Study", *Science of The Total Environment*, **661**, pp. 522 – 530 (2019), Q1.
20. A. Charles, C. K. Cheng, "Photocatalytic treatment of Palm Oil Mill Effluent by Visible Light-Active Calcium Ferrite: Effects of Catalyst Preparation Technique", *Journal of Environmental Management*, **234**, pp. 404 – 411 (2019), Q1.
21. C. B. T. L. Lee, T. Y. Wu, C. H. Ting, J. K. Tan, L. F. Siow, C. K. Cheng, J. M. Jahim, A. W. Mohammad, "One-Pot Furfural Production using Choline Chloride-Dicarboxylic Acid based Deep Eutectic Solvents under Mild Conditions", *Bioresource Technology*, **278**, 486 – 489 (2019), Q1.
22. C. S. Hong, S. Y. Chin, C. K. Cheng, G. K. Chua, "Selective Oxidation of Glycerol to Mesoxalic Acid by laccase 2, 2, 6, 6-teratmethylpiperidine-N-oxyl system: Effect of Process Conditions and the Kinetic Modelling", *Chemical Engineering Communications*, **Article in press** (2019).
23. A. Karim, M. A. Islam, C. K. M. Faizal, A. Yousuf, M. Howarth, B. N. Dubey, C. K. Cheng, M. M. R. Khan, "Enhanced Biohydrogen-Production from Citrus Wastewater using Anaerobic Sludge Pretreated by Electroporation Technique", *Industrial & Engineering Chemistry Research*, **58(2)**, pp. (2019), Q1.
24. K. M. R. Karim, M. Tarek, H. R. Ong, H. Abdullah, A. Yousuf, C. K. Cheng, M. M. R. Khan, "Photoelectrocatalytic Reduction of Carbon Dioxide to Methanol using $CuFe_2O_4$ Modified with Graphene Oxide under Visible Light Irradiation", *Industrial & Engineering Chemistry Research*, **58(2)**, pp. (2019), Q1.
25. M. N. N. Shahirah, J. Gimbun, S. S. Lam, Y. H. Ng, C. K. Cheng, "Synthesis and Characterization of A LaNi/a-Al_2O_3 Catalyst and Its Use in Pyrolysis of Glycerol to Syngas", Renewable Energy, **132**, pp. 1389 – 1401 (2019), Q1.
26. M. A. Hossain, B. V. Ayodele, C. K. Cheng, M. R. Khan, "Optimization of Renewable Hydrogen-Rich Syngas Production from Catalytic Reforming of Greenhouse Gases (CH_4 and CO_2) over Calcium Iron Oxide supported Nickel Catalyst", *Journal of the Energy Institute*, **92(1)**, pp. 177–194 (2019), Q1.
27. P. Jamrunroj, S. Wongsakulphasatch, A. Maneedaeng, C. K. Cheng, S. Assabumrungrat, "Surfactant assisted CaO-based Sorbent Synthesis and Their Application to High-

Temperature CO_2 Capture, *Powder Technology*, **344**, pp. 208–221 (2019), Q1

28. R. K. Liew, W. L. Nam, M. Y. Chong, X. Y. Phang, M. H. Su, P. N. Y. Yek, N. L. Ma, C. K. Cheng, C. T. Chong, S. S. Lam, "Oil Palm Waste: An Abundant and Promising Feedstock for Microwave Pyrolysis Conversion into Good Quality Biochar with Potential Multi-Applications", *Process Safety and Environmental Protection*, **115**, pp. 57–69 (2018), Q1.
29. M. A. Islam, H. R. Ong, B. Ethiraj, C. K. Cheng, M. M. R. Khan, "Optimization of Co-Culture Inoculated Microbial Fuel Cell Performance using Response Surface Methodology", *Journal of Environmental Management*, **225**, pp. 242 – 251 (2018), Q1.
30. K. Md R. Karim, H. R. Ong, H. Abdullah, A. Yousuf, C. K. Cheng, M. R. Khan, "Electrochemical study of copper ferrite as a catalyst for CO2 photoelectrochemical reduction", *Bulletin of Chemical Reaction Engineering & Catalysis*, **13(2)**, pp. 236–244 (2018)
31. Y. W. Cheng, Z. S. Lee, C. C. Chong, M. R. Khan, C. K. Cheng, K. H. Ng, Sk S. Hossain, "Hydrogen-Rich Syngas Production via Steam Reforming of Palm Oil Mill Effluent (POME)–A Thermodynamic Analysis", *Int. J. Hydrogen Energy*, **Article in press** (2018), Q1.
32. K. H. Ng, Y. W. Cheng, Z. S. Lee, M. R. Khan, S. S. Lam, C. K. Cheng, "Experimental Evaluation and Empirical Modelling of Palm Oil Mill Effluent Steam Reforming", *Int. J. Hydrogen Energy*, **43(33)**, pp. 15784–15793 (2018), Q1.
33. R. K. Liew, E. Azwar, P. N. Y. Yek, X. Y. Lim, C. K. Cheng, J.-H. Ng, A. Jusoh, W. H. Lam, M. D. Ibrahim, N. L. Ma, S. S. Lam, "Microwave Pyrolysis with KOH/NaOH Mixture Activation: A New Approach to Produce Micro-Mesoporous Activated Carbon for Textile Dye Adsorption", *Bioresource Technology*, **206**, pp. 1–10 (2018), Q1
34. M. A. Islam, B. Ethiraj, C. K. Cheng, A. Yousuf, S. Thiruvenkadam, R. Prasad, M. R. Khan, "Enhanced Current Generation using Mutualistic Interaction of Yeast-Bacterial Coculture in Dual Chamber Microbial Fuel Cell", *Ind. & Eng. Chemistry Res.*, **57(3)**, pp. 813–821 (2018), Q1.
35. M. A. Hossain, B. V. Ayodele, C. K. Cheng, M. R. Khan, "Syngas production from catalytic CO_2 reforming of CH_4 over $CaFe_2O_4$ supported Ni and Co catalysts: Full factorial design screening", *Bulletin of Chemical Reaction Engineering & Catalysis*, **13(1)**, pp. 57–73 (2018).
36. K. H. Ng, Y. W. Cheng, Z. S. Lee, C. K. Cheng, "A Study into Syngas Production from Catalytic Steam Reforming of Palm Oil Mill Effluent (POME): A New Treatment

Approach", *Int. J Hydrogen Energy*, **Article in press** (2018), Q1.

37. S. S. Lam, R. K. Liew, C. K. Cheng, N. Rasit, C. K. Ooi, N. L. Ma, J.-H. Ng, W. H. Lam, C. T. Chong, H. A. Chase, "Pyrolysis Production of Fruit Peel Biochar for Potential Use in Treatment of Palm Oil Mill Effluent", *Journal of Environmental Management*, **231**, pp. 400–408 (2018), Q1.
38. O. U. Osazuwa, M. R. Khan, S. S. Lam, S. Assabumrungrat, C. K. Cheng, "An Assessment of the Longevity of Samarium Cobalt Trioxide Perovskite Catalyst during the Conversion of Greenhouse Gases into Syngas", *Journal of Cleaner Production*, **185**, pp. 576 – 587 (2018), Q1.
39. M. A. Islam, B. Ethiraj, C. K. Cheng, A. Yousuf, M. R. Khan, "An Insight of Synergy between Pseudomonas aeruginosa and Klebsiella variicola in Microbial Fuel Cell", *ACS Sustainable Chem. Eng.*, **6(3)**, pp. 4130 – 4137 (2018), Q1.
40. R. K. Liew, M. Y. Chong, O. U. Osazuwa, W. L. Nam, X. Y. Phang, M. H. Su, C. K. Cheng, C. T. Chong, S. S. Lam, "Production of Activated Carbon as Catalyst Support by Microwave Pyrolysis of Palm Kernel Shell: A Comparative Study of Chemical versus Physical Activation", Research on Chemical Intermediates, **44(6),** pp. 3849–3865 (2018), Q3.
41. H. R. Ong, C. W. Woon, M. S. Ahmad, A. Yousuf, C. K. Cheng, M. R. Khan, "Facile Synthesis of PVP-MnO_2/CNT Composites as ORR Electrocatayst for an Air-Cathode Microbial Fuel Cell", *Int. J. Eletrochem. Sci*., **13(8)**, pp. 7789 – 7799 (2018).
42. B. V. Ayodele, S. Abdullah, C. K. Cheng, "Kinetics and Mechanistic Studies of CO-rich Hydrogen Production by CH_4/CO_2 Reforming over Praseodymia Supported Cobalt Catalysts", *International Journal of Hydrogen Energy*, **43(47)**, pp. 28408 – 28424 (2017), Q1.
43. T. Jiwanuruk, S. Putivisutisak, P. V.-Umnuay, P. Bumroongsakulsawat, C. K. Cheng, S. Assabumrungrat, "Modelling of Thermally-Coupled Monolithic Membrane Reformer for Vehicular Hydrogen Production", *International Journal of Hydrogen Energy*, **42(42)**, pp. 28408 – 28424 (2017), Q1.
44. M. A. Islam, B. Ethiraj, C. K. Cheng, A. Yousuf, Md M. R. Khan, "Correlation of Power Generation with Time-Course Biofilm Architecture using Klebsiella Variicola in Dual Chamber Microbial Fuel Cell", *International Journal of Hydrogen Energy*, **42(41)**, pp. 25933 – 25941 (2017), Q1.
45. C. W. Woon, M. A. Islam, B. Ethiraj, H. R. Ong, C. K. Cheng, K. F. Chong, G. Hedge, M. R. Khan, "Carbon Nanotube-Modified MnO_2 : An Efficient Electrocatalyst for Oxygen

Reduction Reaction", *Chemistry Select*, **2(25)**, pp. 7637 – 7644 (2017).

46. B. V. Ayodele, M. R. Khan, C. K. Cheng, "Greenhouse Gases Abatement by Catalytic Dry Reforming of Methane to Syngas over Samarium Oxide-supported Cobalt Catalyst", *International Journal of Environmental Science and Technology*, **19(3)**, pp. 795 – 807 (2017), Q2.
47. M. A. Islam, B. Ethiraj, C. K. Cheng, A. Yousuf, Md M. R. Khan, "Electrogenic Power Generation in Anaerobic Sludge-Driven Microbial Fuel Cells", *Energy & Fuels*, **31(6)**, pp. 6132 – 6139 (2017), Q1.
48. Y. W. Cheng, Y. S. Chang, K. H. Ng, T. Y. Wu, C. K. Cheng, "Photocatalytic Restoration of Liquid Effluent from Oil Palm Agroindustry in Malaysia using Tungsten Oxides Catalyst", *Journal of Cleaner Production*, **162**, pp. 205 – 219 (2017), Q1.
49. O. U. Osazuwa, H. D. Setiabudi, S. Abdullah, C. K. Cheng, "Syngas Production from Methane Dry Reforming over $SmCoO_3$ Perovskite Catalyst: Kinetics and Mechanistic Studies", *International Journal of Hydrogen Energy*, **42(15),** pp. 9707 –9721 (2017), Q1.
50. K. H. Ng, M. R. Khan, Y. H. Ng, Sk. S. Hossain, C. K. Cheng, "Restoration of Liquid Effluent from oil Palm Agroindustry in Malaysia using UV/TiO_2 and UV/ZnO Photocatalytic Systems: A Comparative Study", *Journal of Environmental Management*, **196,** pp. 674 – 680 (2017), Q1.
51. M.N. N. Shahirah, J. Gimbun, A. Ideris, M. R. Khan, C. K. Cheng, "Catalytic Pyrolysis of Glycerol into Syngas over Ceria-promoted Ni/α-Al_2O_3 catalyst", *Renewable Energy*, **107**, pp. 223 – 234 (2017), Q1.
52. O. U. Osazuwa, C. K. Cheng, "Catalytic Conversion of Methane and Carbon Dioxide (Greenhouse Gases) into Syngas over Samarium-Cobalt-Trioxides Perovskite Catalyst", *Journal of Cleaner Production*, **148,** pp. 202 – 211 (2017), Q1.
53. M. A. Islam, A. Karim, C. W. Woon, B. Ethiraj, C. K. Cheng, A. Yousuf, M. R. Khan, "Augmentation of air cathode microbial fuel cell performance using wild type Klebsiella variicola", *RSC Advances*, **7(8),** pp. 4798 – 4805 (2017), Q2.
54. J. C. Soh, S. L. Chong, S. S. Hossain, C. K. Cheng, "Catalytic Ethylene Production from Ethanol Dehydration over Non-Modified and Phosphoric Acid Modified Zeolite H-Y (80) Catalysts", *Fuel Processing Technology*, **158**, pp. 85 – 95 (2017), Q1.
55. K. H. Ng, C. K. Cheng, "Photocatalytic Degradation of Palm Oil Mill Effluent over Ultraviolet-Responsive Titania: Successive Assessments of Significance Factors and Process Optimization", *Journal of Cleaner Production*, **142 (Part 4),** pp. 2073 – 2083 (2017), Q1.

56. M.N. N. Shahirah, B. V. Ayodele, J. Gimbun, S. S. Lam, C. K. Cheng, "Renewable Syngas Production from Thermal Cracking of Glycerol over Praseodymium-Promoted Ni/Al_2O_3 Catalyst", *Applied Thermal Engineering*, **112**, pp. 871 – 880 (2017), Q1.
57. O. U. Osazuwa, H. Setiabudi, R. A. Rasid, C. K. Cheng, "Syngas Production via Methane Dry Reforming: A Novel Application of $SmCoO_3$ Perovskite Catalyst", *Journal of Natural Gas Science & Engineering*, **37,** pp. 435 – 448 (2017), Q2.
58. M. A. Islam, C. W. Woon, B. Ethiraj, C. K. Cheng, A. Yousuf, M. R. Khan, "Ultrasound Driven Biofilm Removal for Stable Power Generation in Microbial Fuel Cell", *Energy & Fuels*, **31(1),** pp. 968 - 976 (2017), Q1.
59. B. V. Ayodele, Sk S. Hossain, M. R. Khan, C. K. Cheng, "Modelling and optimization of syngas production by methane dry reforming over samarium oxide supported cobalt catalyst: Response Surface Methodology and Artificial Neural Networks Approach", *Clean Technologies and Environmental Policy*, **19(4)**, pp. 1181 – 1193 (2017), Q2.
60. J. C. Soh, S. L. Chong, S. Y. Chin, C. K. Cheng, "Catalytic Performance of Commercial Zeolites Y as Catalyst for Ethylene Production from Ethanol Dehydration", *Malaysian Journal of Catalysis*, **2(1)**, pp. 1 – 7 (2017).
61. O. U. Osazuwa, C. K. Cheng, "Stoichiometric Effects of Feed Ratio on Syngas Production from CO_2 Reforming of Methane over $SmCoO_3$ Perovskite Catalyst", *Malaysian Journal of Catalysis*, **2(1)**, 2017.
62. S. L. Chong, J. C. Soh, C. K. Cheng, "Production of Ethylene from Ethanol over H_3PO_4-Modified Cerium Oxide Catalysts", *Malaysian Journal of Analytical Sciences*, **21(4)**, pp. 839 – 848 (2017).
63. K. H. Ng, Y. W. Cheng, M. R. Khan, C. K. Cheng, "Optimization of photocatalytic Degradation of Palm Oil Mill Effluent in UV/ZnO System based on Response Surface Methodology", *Journal of Environmental Management*, **184(Part 3)**, pp. 487 – 493 (2016), Q1.
64. S. S. Lam, W. A. W. Mahari, C. K. Cheng, R. Omar, C. T. Chong, H. A. Chase, "Recovery of Diesel-like Fuel from Waste Palm Oil by Pyrolysis using A Microwave Heated bed of Activated Carbon", *Energy*, **115(Part 1)**, pp. 791 – 799 (2016), Q1.
65. B. V. Ayodele, Sk S. Hossain, M. R. Khan, C. K. Cheng, "Greenhouse Gases Mitigation by CO_2 Reforming of Methane to Hydrogen-Rich Syngas using Praseodymium Oxide supported Cobalt Catalyst", *Clean Technologies and Environmental Policy*, **19(3),** pp. 795 – 807 (2017), Q2.
66. B. V. Ayodele, Sk S. Hossain, S. S. Lam, M. R. Khan, C. K. Cheng, "Syngas Production

from CO_2 Reforming of Methane over Neodymium Sesquioxide supported Cobalt Catalyst ", *Journal of Natural Gas Science and Engineering*, **34**, pp. 873–885 (2016), Q2.

67. B. V. Ayodele, C. K. Cheng, "Biorefinery for the Production of Biodiesel, Hydrogen and Synthesis Gas Integrated with CHP from Oil Palm in Malaysia", *Chem. Prod. Process Model.*, **11(4)**, 305 – 314 (2016)
68. M. N. N. Shahirah, S. Abdullah, J. Gimbun, Y. H. Ng, C. K. Cheng, "A Study on The Kinetics of Syngas Production from Glycerol over Alumina-supported Samarium-Nickel Catalyst", *Int. J. Hydrogen Energy*, **41(25)**, pp. 10568 – 10577 (2016), Q1.
69. M. A. Hossain, B. V. Ayodele, C. K. Cheng, M. R. Khan, "Artificial Nueral Network Modeling of Hydrogen-Rich Syngas Production from Metyhane Dry Reforming over Novel Ni/$CaFe_2O_4$ Catalysts", *Int. J. Hydrogen Energy*, **41(26)**, pp.11119 – 11130 (2016), Q1.
70. B. V. Ayodele, M. R. Khan, C. K. Cheng, "Production of CO-rich Hydrogen Gas from Methane Dry Reforming over Co/CeO_2 Catalyst", *Bulletin of Chemical Reaction Engineering and Catalysis*, **11(2)**, pp. 210 – 219 (2016).
71. M. N. N. Shahirah, B. V. Ayodele, J. Gimbun, C. K. Cheng, "Samarium Promoted Ni/Al_2O_3 Catalyst for Syngas Production from Glycerol Pyrolysis", *Bulletin of Chemical Reaction Engineering and Catalysis*, **11(2)**, pp. 238 – 244 (2016).
72. K. H. Ng, C. K. Cheng, "Photo-polishing of POME into CH_4-lean Biogas over The UV-Responsive ZnO Photocatalyst", *Chemical Engineering Journal*, **300**, pp. 127–138 (2016), Q1.
73. B. V. Ayodele, M. A. Hossain, S. L. Chong, J. C. Soh, S. Abdullah, M. R. Khan, C. K. Cheng, "Non-isothermal kinetics and mechanistic study of thermal decomposition of light rare earth metal nitrate hydrates using thermogravimetric analysis", *J. Thermal Analysis and Calorimetry*, **125(1)**, pp. 423 – 435 (2016), Q3.
74. B. V. Ayodele, M. R. Khan, S. S. Lam, C. K. Cheng, "Production of CO-Rich Hydrogen from Methane Dry Reforming over Lanthania-supported Cobalt Catalyst: Kinetic and Mechanistic Studies", *Int. J. Hydrogen Energy*, **41(8)**, pp. 4603-4615 (2016), Q1.
75. C. K. Cheng, H. J. Chan, "Potential of Empty Fruit Bunch Clinker as A Support for Nickel and Cobalt Catalysts in Methane Dry Reforming: Waste to Wealth Approach", *Journal of Taiwan Institute of Chemical Engineers*, **62**, pp. 76 - 83 (2016), Q1.
76. C. K. Cheng, M. R. Deraman, K. H. Ng, M. R. Khan, "Preparation of Titania Doped Argentum Photocatalyst and Its Photoactivity Towards POME Degradation", *Journal of Cleaner Production*, **112 (Part 1),** pp. 1128-1135 (2016), Q1.

77. K. H. Ng, C. H. Lee, M. R. Khan, C. K. Cheng, "Photocatalytic Degradation of Recalcitrant POME Waste by Using Silver Doped Titania: Photokinetics and Scavenging Studies, *Chem. Eng. Journal*, **286,** pp. 282-290 (2016), Q1.
78. B. V. Ayodele, C. K. Cheng, "Catalytic Performance of Ceria-Supported Cobalt Catalyst for CO-Rich Hydrogen Production from Dry Reforming of Methane", *Int. J. Hydrogen Energy*, **41(1)**, pp. 198-207 (2016), Q1.
79. M. R. Khan, MD. W. Rahman, H. R. Ong, A. Ismail and C. K. Cheng, "Tea Dust as A Potential Low-Cost Adsorbent for The Removal of Crystal Violet from Aqueous Solution", *Desalination and Water Treatment*, **57(31)**, pp. 14728 - 14738 (2016), Q2.
80. B. V. Ayodele, C. K. Cheng, "Modelling and Optimization of Syngas Production from Methane Dry Reforming over Ceria-supported Cobalt catalyst Using Artificial Neural Networks and Box-Behnken Design", *Journal of Industrial & Engineering Chemistry*, **32**, pp. 246-258 (2015), Q1.
81. B. V. Ayodele, M. R. Khan, C. K. Cheng, Syngas Production from CO_2 Reforming of Methane over Ceria supported Cobalt Catalyst: Effects of Reactants Partial Pressure", *Journal of Natural Gas Science and Engineering*, **27 (Part 2)**, pp. 1016-1023 (2015), Q1.
82. M. A. Mohd Ali, R. M. Yunus, C. K. Cheng, J. Gimbun, "Successive Optimisation of Waste Cooking Oil Transesterification In A Continuous Microwave Assisted Reactor", *RSC Advances*, **5**, pp. 76743-76751 (2015), Q2.
83. C. K. Cheng, Z. Y. Kong, M. R. Khan, "Photocatalytic-Fenton Degradation of Glycerol Solution over Visible Light-Responsive $CuFe_2O_4$", *Water, Air & Soil Pollution*, **226(10)**, pp. 1-12 (2015), Q2.
84. B. V. Ayodele, C. K. Cheng, "Process Modelling, Thermodynamic Analysis and Optimization of Dry Reforming, Partial Oxidation and Auto-thermal Methane Reforming for Hydrogen and Syngas Production", *Chemical Product and Process Modelling*, **10(4)**, pp. 211-220 (2015).
85. M. R. Udin, M. R. Khan, M. W. Rahman, A. Yousuf, C. K. Cheng, "Photocatalytic Reduction of CO_2 into Methanol over $CuFe_2O_4/TiO_2$ under visible light irradiation", *Reaction Kinetics, Mechanisms and Catalysis*, **116(2)**, pp. 589-604 (2015), Q3.
86. M. A. M. Ali, C. K. Cheng, R. M. Yunus, J. Gimbun, "Optimization of Waste Cooking Oil Transesterification in A Continuous Microwave Assisted Reactor", *Chemical Engineering Transactions*, **45**, pp. 1279–1284 (2015).
87. K. H. Ng, C. K. Cheng, "A Novel Photomineralization of POME over UV-Responsive TiO_2 Photocatalyst: Kinetics of POME Degradation and Gaseous Product Formations",

RSC Advances, **5(65)**, pp. 53100–53110 (2015), Q2.

88. S. S. Lam, R. K. Liew, C. K. Cheng and H. A. Chase, "Catalytic Microwave Pyrolysis of Waste Engine Oil using Metallic Pyrolysis Char", *Applied Catalysis B: Environmental*, **176-177**, pp. 601–617 (2015), Q1.
89. S. Y. Chin, M. A. A. Ahmad, M. R. Kamaruzaman and C.K. Cheng, "Kinetic Studies of The Esterification Of Pure and Dilute Acrylic Acid with 2-Ethyl Hexanol Catalysed By Amberlyst 15", *Chemical Engineering Science*, **129**, pp. 116–125 (2015), Q1.
90. K.W. Siew, H.C. Lee, J. Gimbun and C.K. Cheng, "CO_2 Reforming of Glycerol over La-Ni/Al_2O_3 Catalyst : A Longevity Evaluative Study", *Journal of Energy Chemistry*, **24(3)**, pp. 366–373 (2015), Q2.
91. M. R. Khan, Abu Yousuf, C.K. Cheng, "Schottky Barrier and Surface Plasmonic Resonance Phenomena towards The Photocatalytic Reaction: Study of Their Mechanisms to Enhance The Photocatalytic Activity", *Catalysis Science & Technology*, **5**, pp. 2522–2531 (2015), Q1.
92. C.K. Cheng, M.R. Derahman and M. R. Khan, "Photodegradation of POME over Pt/TiO_2 Photocatalyst", *Journal of Environmental Chemical Engineering*, **3(1)**, pp. 261–270 (2015).
93. K.W. Siew, H.C. Lee, J. Gimbun, S.Y. Chin, M.R. Khan, Taufiq Y.H. Yap and C.K. Cheng, "Syngas Production from Glycerol-Dry(CO_2) Reforming over La-promoted Ni/Al_2O_3 Catalyst", *Renewable Energy*, **74,** pp. 441-447 (2015), Q1.
94. E. Baranitharan, M. R. Khan, Abu Yousuf and C. K. Cheng, "Enhanced Power Generation using Controlled Inoculum from Palm Oil Mill Effluent Fed Microbial Fuel Cell", *Fuel*, **143**, pp. 72–79 (2015), Q1.
95. M.N.N. Shahirah, J. Gimbun, S.F. Pang, R.M. Zakria, C.K. Cheng, G.K. Chua and M.F.F. Asras, "Influence of Nutrient Addition on The Bioethanol Yield from Oil Palm Trunk Sap Fermented by Saccharomyces cerevisiae", *Journal of Industrial and Engineering Chemistry*, **23**, pp. 213–217 (2015), Q1.
96. C. L. Ong, H. J. Chan and C. K. Cheng, "Synthesis and Characterization of La-Co/MgO Catalyst for Methane Dry Reforming", *Journal of Engineering Science and Technology*, 3(1), 79 – 89 (2015).
97. Z. Y. Kong, N. X. Wong, S. W. Lum, S. Y. Tan, M. R. Khan and C. K. Cheng, "The Application of Magnesium Ferrite Photocatalyst for Photo-Treatment of Methylene Blue", *Journal of Engineering Science and Technology*, 4(1), 1 – 10 (2015).
98. C.S. Hong, S.Y. Chin, C.K. Cheng, M.M. Sabri and G.K. Chua, "Enzymatic Conversion

of Glycerol to Glyceric Acid with Immobilised Laccase in Na-Alginate Matrix", *Procedia Chemistry*, **16**, pp. 632-639 (2015).

99. H.C. Lee, K.W. Siew, J. Gimbun and C.K. Cheng, "Synthesis and Characterization of Cement Clinker-supported Nickel Catalyst for Glycerol Dry Reforming", *Chemical Engineering Journal*, **255**, pp. 245-256 (2014), Q1.
100. H.C. Lee, K.W. Siew, M.R. Khan, S.Y. Chin, J. Gimbun and C.K. Cheng, "Catalytic Performance of Cement Clinker Supported Nickel Catalyst in Glycerol Dry Reforming", *J. Energy Chem*., **23(5),** pp. 645-656 (2014), Q1.
101. K.W. Siew, H.C. Lee, J. Gimbun and C.K. Cheng, "Production of CO-rich Hydrogen Gas from Glycerol Dry Reforming over La-promoted Ni/Al_2O_3 Catalyst", *Int. J. Hydrogen Energy*, **39**(13), pp. 6927-6936 (2014), Q1.
102. K.H. Ng, M.R. Deraman, C.H. Ang, S.K. Chong, Z.Y. Kong, M.R. Khan, C.K. Cheng, "Phototreatment of Palm Oil Mill Effluent (POME) over Cu/TiO_2 Photocatalyst", *Bulletin of Chemical Engineering & Catalysis*, **9**(2), pp. 121-127 (2014).
103. K.W. Siew, H.C. Lee, J. Gimbun and C.K. Cheng, "Characterization of La-promoted Ni/Al_2O_3 Catalysts for Hydrogen Production from Glycerol Dry Reforming", *J. Energy Chem*., **23**(1), pp. 15-21 (2014), Q1.
104. H.R. Ong, M.R. Khan, M.N.K. Chowdhury, A. Yousuf and C.K. Cheng, "Synthesis and Characterization of CuO/C Catalyst for The Esterification of Free Fatty Acid in Rubber Seed Oil", *Fuel*, **120**, pp. 195-201 (2014), Q1.
105. J. Gimbun, S. Ali, C.C.S.C Kanwal, L.A. Shah, N.H.M. Ghazali, C.K. Cheng, S. Nurdin, "Biodiesel Production from Rubber Seed Oil using Activated Cement Clinker as Catalyst", *Procedia Engineering*, **53**, pp. 13-19 (2013).
106. K.W. Siew, H.C. Lee, J. Gimbun and C.K. Cheng, "Hydrogen Production via Glycerol Dry Reforming over La-Ni/Al_2O_3 Catalyst", *Bulletin of Chemical Engineering & Catalysis*, **8**(2), pp. 160-166 (2013).
107. H.C. Lee, K.W. Siew, J. Gimbun and C.K. Cheng, "Application of Cement Clinker as Ni-Catalyst Support for Glycerol Dry Reforming", *Bulletin of Chemical Engineering & Catalysis*, **8**(2), pp. 137-144 (2013).
108. K.S. Ho, J.J.E. Chye, S.Y. Chin and C.K. Cheng, "Characterization of Industrial Pt-Sn/Al_2O_3 Catalyst and Transient Product Formations during Propane Dehydrogenation", *Bulletin of Chemical Engineering & Catalysis*, **8**(1), pp. 77-82 (2013).
109. J. Gimbun, S. Ali, C.C.S.C. Kanwal, L.A. Shah, N.H.M. Ghazali, C.K. Cheng, S. Nurdin, "Biodiesel Production from Rubber Seed Oil using A Limestone based Catalyst",

Adv. Mate. Phy. Chem., **2**(4), pp. 138-141 (2012).

110. C.K. Cheng, R.H. Lim, A. Ubil, S.Y. Chin, J. Gimbun, "Hydrogen as Carbon Gasiying Agent during Glycerol Steam Reforming over Bimetallic Co-Ni Catalyst", *Adv. Mate. Phy. Chem.*, **2**(4), pp. 165-168 (2012).

111. S.Y. Foo, C.K. Cheng, T.-H. Nguyen and A.A. Adesina, "Syngas Production from CH_4-Dry Reforming over Co-Ni/Al_2O_3 Catalyst: Coupled Reaction-Deactivation Kinetic Analysis and The Effect of O_2 Co-Feeding on H_2:CO Ratio", *Int. J. Hydrogen Energy*, **37**(22), pp. 17019-17026 (2012), Q1.

112. C.K. Cheng, S.Y. Foo and A.A. Adesina, "Thermodynamic Analysis of Glycerol Steam Reforming in The Presence of H_2 or CO_2 as Carbon Gasifying Agent", *Int. J. Hydrogen Energy*, **37**(13), pp. 10101-10110 (2012), Q1.

113. S.Y. Foo, C.K. Cheng, T.-H. Nguyen and A.A. Adesina, "Carbon Deposition and Gasification Kinetics Studies of Used Lanthanide-Promoted Co-Ni/Al_2O_3 Catalyst From CH_4 Dry Reforming, *Catal. Commun.*, **26**, pp. 183-188 (2012), Q1.

114. C.K. Cheng, S.Y. Foo and A.A. Adesina, "Steam Reforming of Glycerol over Ni/Al_2O_3 Catalyst", *Catal. Today*, **178**(1), pp. 25–33 (2011), Q1.

115. S.Y. Foo, C.K. Cheng, T.-H. Nguyen and A.A. Adesina, "Kinetic Study of Methane CO_2 Reforming on Lanthanide Promoted Co-Ni/Al_2O_3 Catalysts", *J. Mol. Catal. A: Chem.*, **344**(1–2), pp. 28–36 (2011), Q1.

116. C.K. Cheng, S.Y. Foo and A.A. Adesina, "Carbon Deposition on Bimetallic Co-Ni/Al_2O_3 Catalyst During Steam Reforming of Glycerol", *Catal. Today*, **164**(1), pp. 268–274 (2011), Q1.

117. S.Y. Foo, C.K. Cheng, T.-H. Nguyen and A.A. Adesina, "Kinetic Study of Methane CO_2 Reforming on Co-Ni/Al_2O_3 and Ce-Co-Ni/Al_2O_3 Catalysts", *Catal. Today*, **164**(1), pp. 221–226 (2011), Q1.

118. C.K. Cheng, S.Y. Foo and A.A. Adesina, "H_2-rich Synthesis Gas Production over Co/Al_2O_3 Catalyst via Glycerol Steam Reforming", *Catal. Commun.*, **12**(4), pp. 292–298 (2010), Q1.

119. C.K. Cheng, S.Y. Foo and A.A. Adesina, "Glycerol Steam Reforming over Bimetallic Co-Ni/Al_2O_3", *Ind. Eng. Chem. Res.*, **49**(21), pp. 10804–10817 (2010), Q1.

120. S.Y. Foo, C.K. Cheng, T.-H. Nguyen and A.A. Adesina, "Oxidative CO_2 Reforming of Methane on Alumina-Supported Co-Ni Catalyst", *Ind. Eng. Chem. Res.*, **49**(21), pp. 10450–10458 (2010), Q1.

121. C.K. Cheng and A.A. Adesina, "Evaluation of Co-Ni/Al_2O_3 supported Catalysts for

Glycerol Reforming", *Int. J. Chem. Eng*., **2(2–3)**, pp. 235–245 (2009).

122. C.K. Cheng, J.L. Luo, K.T. Chuang and A.R. Sanger, "Propane Fuel Cells using Phosphoric Acid doped Polybenzimidazole Membrane", *J. Phys. Chem. B*, **109**, pp. 13036–13042 (2005), Q1.

Conference Proceedings:

1. Mohd Affandi Mohd Ali, Kun Lu Lau, Rosli Mohd Yunus, Chin Kui Cheng, Jolius Gimbun, Efficient transesterification of waste cooking oil by activated limestone based catalyst in a continuous microwave assisted reactor, SDEWES SEE 2016 - The 2nd South East European Conference on Sustainable Development of Energy, Water and Environment Systems – Piran, June 15-18 2016 (Oral)
2. Md Maksudur Rahman Khan, M Rahim Uddin, Hamidah Abdullah, Kaykobad Md Rezaul Karim, Abu Yousuf, Chin Kui Cheng, Huei Ruey Ong, "Preparation and Characterization of $CuFe_2O_4/TiO_2$ Photocatalyst for The Conversion of CO_2 into Methanol under Visible Light" (Oral)
3. Soo Ling Chong, Jiah Chee Soh, C. K. Cheng, International Conference on Catalysis (iCAT 2016), Grand BlueWave Hotel, Johor Bahru 20th to 21st September 2016 (Oral).
4. Jiah Chee Soh, Soo Ling Chong, C. K. Cheng, International Conference on Catalysis (iCAT 2016), Grand BlueWave Hotel, Johor Bahru 20th to 21st September 2016 (Oral).
5. Kim Hoong Ng, C. K. Cheng, International Conference on Catalysis (iCAT 2016), Grand BlueWave Hotel, Johor Bahru 20th to 21st September 2016 (Oral).
6. Ying Si Chang, C. K. Cheng, International Conference on Catalysis (iCAT 2016), Grand BlueWave Hotel, Johor Bahru 20th to 21st September 2016 (Oral).
7. Osarieme Uyi Osazuwa, C. K. Cheng, International Conference on Catalysis (iCAT 2016), Grand BlueWave Hotel, Johor Bahru 20th to 21st September 2016 (Oral).
8. "Electricity generation form pretreated palm oil mill effluent using Klebsiella Variicola as an inoculum in Microbial fuel cell" ICDRET 2016 – 4th International Conference on The Developments in Renewable Energy Technology (Oral)
9. Bamidele V. Ayodele, M. R. Khan, C. K. Cheng, Conference on Malaysian Rare Earth Technology: From R&D to Production (COMRET 2015), Bukit Gambang Resort City (Oral)
10. "Performance of Klebsiella oxytoca to generate electricity from POME in microbial fuel cell" UTP-UMP Symposium on Energy Systems 2015, Universiti Teknologi Petronas (UTP), Bandar Seri Iskandar, Perak, Malaysia. 7th Oct 2015 (Oral)
11. Nor Shahirah Mohd Nasir, Jolius Gimbun, C. K. Cheng, Conference on Malaysian Rare Earth Technology: From R&D to Production (COMRET 2015), Bukit Gambang Resort City (Oral)
12. Nor Shahirah Mohd Nasir, Jolius Gimbun, C. K. Cheng, SOMChE 2015, UKM Bangi, Malaysia (Oral)

13. Bamidele V. Ayodele, M. R. Khan, C. K. Cheng, SOMChE 2015 UKM Bangi, Malaysia (Oral)
14. Z. Y. Kong, M. R. Khan, C. K. Cheng, "Application of $CuFe_2O_4$ Photocatalytic Fenton Treatment of Glycerol Solution", ICENV 2015, Penang Malaysia, 2015 (Oral).
15. K. H. Ng, M. R. Khan, C. K. Cheng, "A Novel Biogas Production from Photocatalytic Degradation of POME over UV-Responsive Titania", ICENV 2015, Penang Malaysia, 2015 (Oral).
16. Maksudur R. Khan, Kar Min Chan, Huei Ruey Ong, Chin Kui Cheng, Md Wasikur Rahman, "Nanostructured Pt/MnO_2 Catalysts and Their Performance for Oxygen Reduction Reaction in Air Cathode Microbial Fuel Cell", ICBST 2015, Prague, 2015 (Oral).
17. Rossyuhaida Mohd Zakria, Gek Kee Chua, Jolius Gimbun, M. N. Nor Shahirah, Sook Fun Pang, Mohd Fazli Farida Asras, Ahmad Ziad Sulaiman, Chin Kui Cheng, Wan Asma Ibrahim, Optimisation of oil palm trunk sap fermentation to bioethanol, Int. Symp. Chem. Engineering, ISChE 2014, 6th Dec 2014, Kuala Lumpur, 2014 (Oral).
18. Mohd Affandi Mohd Ali, Jolius Gimbun, Chin Kui Cheng, Rosli Mohd Yunus, Waste Cooking Oil Transesterification using Continuous Microwave Assisted Reactor (CMAR), MUCET 2014, 10-11th Nov 2014, Mahkota Hotel, Bandar Hilir Melaka, 2014 (Oral).
19. M. Rahim Uddin, Maksudur R. Khan, Md. Wasikur Rahman, Abu Yousuf, Chin Kui Cheng, "Synthesis, Characterization and Activity Eavluation of Visible Light Responsive $CuFe_2O_4$ Catalyst", MUCET 2014, 10-11 Nov 2014, Mahkota Hotel, Bandar Hilir Melaka, 2014 (Oral).
20. C.K. Cheng, "Syngas Production from Glycerol Reforming", BIT's 1st Annual Global Congress of Knowledge Economy-2014, September 21-23 Qingdao China, 2014 (Oral).
21. C.K. Cheng et al., "A Study into The Photoreaction of Glycerol Aqueus Solution", ISCRE 23 and APCRE 7, September 7 – 10 Bangkok Thailand, 2014 (Poster).
22. C.K. Cheng et al., "Photo-Treatment of POME over Cu/TiO_2 Photocatalyst", ISCRE 23 and APCRE 7, September 7 – 10 Bangkok Thailand, 2014 (Poster).
23. C.K. Cheng et al. "Synthesis and Characterization of La-Co/MgO for Methane Dry Reforming", SOMChE 2014, Taylor University Lake Side, 2014 (Oral).
24. C.K. Cheng et al., "Synthesis of $MgFe_2O_4$ for Methylene Blue Decomposition", SOMChE 2014, Taylor University Lake Side, 2014 (Oral).
25. Dai-Viet N. Vo et al., "CO Hydrogenation over Alumina-Supported Mo Carbide Catalysts", 8th ICEC 2014, August 24 – 27 Asheville US, 2014 (Poster)

26. C.K. Cheng et al., "Bioethanol Production from Oil Palm Sap" National Conference on Industry-Academia Initiatives in Biotechnology, December 5-7 Cameron Highlands, 2013 (Poster).
27. C.K. Cheng et al., "Syngas from Glycerol Dry Reforming over Alumina Supported Nickel Catalyst", 9th World Congress of Chemical Engineering, August 18-23 Seoul Korea, 2013 (Oral).
28. C.K. Cheng et al., "Syngas from Glycerol Dry Reforming over Cement Clinker Supported Nickel Catalyst", 9th World Congress of Chemical Engineering, August 18-23 Seoul Korea, 2013 (Poster).
29. C.K. Cheng et al., "Characterization of Industrial Propane Dehydrogenation Catalyst", 9th World Congress of Chemical Engineering, August 18-23 Seoul Korea, 2013 (Poster).
30. C.K. Cheng et al., "Microwave Pyrolysis of Waste Engine Oil", 9th World Congress of Chemical Engineering, August 18-23 Seoul Korea, 2013 (Oral).
31. C.K. Cheng et al., "Glycerol Dry Reforming over Cement Clinker-supported Nickel Catalyst", The 6th Asia Pacific Congress on Catalysis, October 13-17 Taipei Taiwan, 2013 (Poster).
32. C.K. Cheng et al., "Glycerol Dry Reforming over Alumina Supported Nickel Catalyst", The 6th Asia Pacific Congress on Catalysis, October 13-17 Taipei Taiwan, 2013(Poster).
33. C.K. Cheng et al., "Optimization of Bioethanol Production from Oil Palm Sap", POCER 2013, June 28-29 Genting Malaysia, 2013 (Oral).
34. C.K. Cheng et al., "Bio-Syngas Production from Glycerol Dry Reforming over Cement Clinker-supported Nickel Catalyst", POCER 2013, June 28-29 Genting Malaysia, 2013 (Oral).
35. C.K. Cheng et al., "Glycerol Dry Reforming over Alumina-supported Nickel Catalyst", POCER 2013, June 28-29 Genting Malaysia, 2013 (Oral).
36. C.K. Cheng et al., "Photoreforming of POME over TiO_2 and TiO_2-supported Pt Catalyst", POCER 2013, June 28-29 Genting Malaysia, 2013 (Poster).
37. C.K. Cheng et al., "Glycerol Dry Reforming over Alumina Supported Nickel Catalyst", ICCEIB 2013, Zenith Hotel Kuantan, 2013 (Oral).
38. C.K. Cheng et al., "Synthesis and Characterization of Cement Clinker Supported Nickel Catalyst", ICCEIB 2013, Zenith Hotel Kuantan, 2013 (Oral).
39. J. Gimbun, S. Ali, C.C.S.C. Kanwal, L.A. Shah, N.H.M. Ghazali, C.K. Cheng, S. Nurdin, "Biodiesel Production from Rubber Seed Oil using A Limestone based Catalyst", World Congress on Engineering and Technology, October 26-28 Beijing China, 2012 (Oral).

40. C.K. Cheng, R.H. Lim, A. Ubil, S.Y. Chin, J. Gimbun, "Hydrogen as Carbon Gasiying Agent During Glycerol Steam Reforming over Bimetallic Co-Ni Catalyst", World Congress on Engineering and Technology, October 26-28 Beijing China, 2012 (Oral).
41. J. Gimbun, S. Ali, C.C.S.C. Kanwal, L.A. Shah, N.H.M. Ghazali, C.K. Cheng, S. Nurdin, "Enhancement of Biodiesel Yield from High FFA Malaysian Rubber Seed Oil with Sodium Methoxide Treated Limestone", Int. Conf. Biomass & Value Added Product, October 22-23 Kuala Lumpur Malaysia, 2012 (Oral).
42. C.K. Cheng, R.H. Lim, A. Ubil, S.Y. Chin, J. Gimbun, "CO_2-rich Syngas Production via Glycerol Steam Reforming", Int. Conf. Biomass & Value Added Product, October 22-23 Kuala Lumpur Malaysia, 2012 (Oral).
43. J. Gimbun, S. Ali, C.C.S.C. Kanwal, L.A. Shah, N.H.M. Ghazali, C.K. Cheng, S. Nurdin, "Biodiesel production from rubber seed oil using activated cement clinker as catalyst", MUCET 2012, November 20-21 Perlis Malaysia, 2012 (Oral).
44. R.M. Deraman, C.K. Cheng, "Thermodynamic analysis of ethanol decomposition", ICCBPE-SOMChE 2012, November 21-23 Kota Kinabalu Malaysia, 2012 (Oral).
45. C.K. Cheng, S.Y. Foo, A.A. Adesina, "Glycerol Steam Reforming: Effects of Concurrent Feeding of H_2 or CO_2 as Gasifying Agent", 7th International Conference on Environmental Catalysis (ICEC), September 2–6 Lyon France, 2012 (Poster)
46. V. Arcotumapathy, C.K. Cheng, A. Siahvashi, A.A. Adesina, "Methane Steam Reforming over Ce-promoted Ni/SBA-15 Catalyst", 22nd International Symposium on Chemical Reaction Engineering (ISCRE), September 2–5 Maastricht Netherlands, 2012 (Poster)
47. C.K. Cheng, S.Y. Foo, A.A. Adesina, "Thermodynamic Analysis of Glycerol Steam Reforming in The Presence of CO_2 and H_2 as Carbon Gasifying Agents", 8th European Congress of Chemical Engineering (ECCE), September 25–29 Berlin Germany, 2011 (Poster)
48. C.K. Cheng, S.Y. Foo, A.A. Adesina, "Unsteady-state Kinetic Analysis of Glycerol Steam Reforming over Alumina-supported Nickel Catalyst", September 25–29 Berlin Germany, 2011 (Oral)
49. S.Y. Foo, C.K. Cheng, T.-H. Nguyen, A.A. Adesina, "CH_4 Dry Reforming and O_2 Co-Feeding on Co-Ni/Al_2O_3 Catalyst: Non-Separable Reaction-Deactivation Kinetic Studies", The 6th Asia Pacific Chemical Reaction Engineering Symposium (APCRE), September 18–21 Beijing China, 2011 (Oral)
50. C.K. Cheng, S.Y. Foo, A.A. Adesina, "Deactivation Behaviour of Modified Co-Ni/Al_2O_3 catalysts for Glycerol Steam Reforming", 22nd North American Catalysis Society Meeting

(NAM), June 5–10 Detroit MI USA, 2011 (Poster)

51. S.Y. Foo, C.K. Cheng, T.-H. Nguyen, A.A. Adesina, "Carbon Deposition and Regeneration Kinetics of Used Lanthanide-Promoted Co-Ni/Al_2O_3 Catalysts From CH_4 Dry Reforming", 22nd North American Catalysis Society Meeting (NAM), June 5–10 Detroit MI USA, 2011 (Poster)
52. C.K. Cheng, S.Y. Foo, A.A. Adesina, "Application of Co/Al_2O_3 Catalyst in Steam Reforming of Glycerol", CHEMECA, September 26–29 Adelaide Australia, 2010 (Oral)
53. S.Y. Foo, C.K. Cheng, Nguyen T.-H., A.A. Adesina, "Evaluation of Lanthanide-Group Promoters on Co-Ni/Al_2O_3 for CH_4 Dry Reforming", CHEMECA, September 26–29 Adelaide Australia, 2010 (Oral)
54. M.S. Johari, C.K. Cheng, A.A. Adesina, "Steam Reforming of Glycerol over Alkali-Promoted Co-Ni/Al_2O_3 Catalysts", CHEMECA, September 26–29 Adelaide Australia, 2010 (Poster)
55. C.K. Cheng, S.Y. Foo, A.A. Adesina, "Promotional Effect of Alkaline Earth Metal and Lanthanide in Alumina Supported Co-Ni Catalyst for Glycerol Steam Reforming", 6th International Conference on Environmental Catalysis, September 12–15 Beijing China, 2010 (Poster)
56. C.K. Cheng, S.Y. Foo, A.A. Adesina, "Carbon Deposition Kinetics During Glycerol Steam Reforming over Co-Ni/Al_2O_3 Catalyst", 6th Tokyo Conference on Advanced Catalytic Science and Technology/ 5th Asia Pacific Congress on Catalysis, July 18–23 Sapporo Japan, 2010 (Poster)
57. S.Y. Foo, C.K. Cheng, T.-H. Nguyen, A.A. Adesina, "CO_2 Reforming of Methane on A Co-Ni/Al_2O_3 Catalyst System", 6th Tokyo Conference on Advanced Catalytic Science and Technology/ 5th Asia Pacific Congress on Catalysis, July 18–23 Sapporo Japan, 2010 (Poster)
58. C.K. Cheng, S.Y. Foo, A.A. Adesina, Kinetics of Glycerol Steam Reforming Catalyzed by Bimetallic Co-Ni/Al_2O_3", 21st International Symposium on Chemical Reaction Engineering, June 13–16 Philadelphia USA, 2010 (Oral)
59. S.Y. Foo, T.-H. Nguyen, C.K. Cheng, A.A. Adesina, "Oxidative CO_2 Reforming of Methane on Alumina-Supported Co-Ni Catalyst", 21st International Symposium on Chemical Reaction Engineering, June 13–16 Philadelphia USA, 2010 (Oral)
60. C.K. Cheng, A.A. Adesina, "Evaluation of Ni-Co/Al_2O_3 Supported Catalyst for Glycerol Steam Reforming: Solid-State Kinetic Analysis", CHEMECA, September 27–29 Perth Australia, 2009 (Oral)

61. C.K. Cheng, A.A. Adesina, "Thermodynamic Analysis of Glycerol Steam Reforming for H_2 Production", CHEMECA, September 27–29 Perth Australia, 2009 (Poster)
62. Cheng et al., International Conference of Sustainable Materials, June 9–11 UniMAP Perlis, 2007 (Oral)
63. Cheng et al., 21st Symposium of Chemical Engineering, Dec. 12–14 UPM Malaysia, 2007 (Oral)
64. Cheng et al., Conference of Natural Resources in The Tropics, June 6–8 UNIMAS Malaysia, 2006 (Poster)
65. Cheng et al., Young Researchers Conference on Applied Science, June 13–14 UiTM Malaysia, 2001 (Poster)
66. Cheng et al., 20th Symposium of Chemical Engineering, Dec. 19–20 UiTM Malaysia, 2006 (Poster)
67. Cheng et al., 19th Symposium of Chemical Engineering, Dec. 11–13 UMS Malaysia, 2005 (Poster)