

FARAH DIANA BINTI MOHD DAUD



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المؤهل العلمي

- Doctor of Philosophy
- Master of Science (Materials Engineering)
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مسؤوليات التدريس

CERAMICS AND GLASSES	2016/2017 2017/2018 2018/2019
Ceramics	2017/2018 2018/2019 2019/2020 2020/2021
ELECTROCERAMICS	2017/2018
Electroceramics	2020/2021
FINAL YEAR PROJECT I	2018/2019 2019/2020
FINAL YEAR PROJECT II	2019/2020
Integrated Design Project	2018/2019
MATERIALS ENGINEERING LAB I	2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
MATERIALS ENGINEERING LAB II	2015/2016
MATERIALS LABORATORY I	2015/2016 2016/2017
MATERIALS SCIENCE AND ENGINEERING	2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021

المشاريع البحثية

In Progress

- 2019 - Present** Surface Passivation of Porous NiTi Shape Memory Alloy via Thermal Oxidation for Bone Implant Application
- 2019 - Present** Regeneration behaviour of nanosilica with concrete waste via natural self-healing route for capturing CO₂

- 2019 - Present** Surface Passivation of Porous NiTi Shape Memory Alloy via Thermal Oxidation for Bone Implant Application
- 2019 - Present** UNRAVELLING CATALYTIC MECHANISM OF HIGH ENTROPY ALLOYS (HEAs) FOR ENERGY-EFFICIENT AZO DYE REMOVAL IN FENTON REACTION
- 2018 - Present** Synthesis of hybrid nanosorbent calcium oxide incorporated with magnesium oxide-silica for enhancement CO₂ capture performance and cyclic stability
- 2015 - Present** Development of Ceramic Membranes from Halal Sources Material for Removal of CO₂ from Biogas Plant
- 2009 - Present** Advanced Materials and Surface Engineering (AMSERU)
- Unknown - Present** Synthesis of hybrid nanosorbent calcium oxide incorporated with magnesium oxide-silica for enhancement CO₂ capture performance and cyclic stability
- Completed**
- 2018 - 2021** Synthesis of hybrid nanosorbent calcium oxide incorporated with magnesium oxide-silica for enhancement CO₂ capture performance and cyclic stability
- 2015 - 2018** Development of Ceramic Membranes from Halal Sources Material for Removal of CO₂ from Biogas Plant

المنشورات

Article

- 2021** [Preparatiion of CaO-based pellet using rice husk ash via granulation method for potential CO₂ capture.](#) IIUM Engineering Journal , 22 (1)
- 2020** [A comparative study on mechanical properties of carbon and Kenaf composites via vacuum infusion technique.](#) Journal of Engineering Science , 16 (1) pp.97-107
- 2020** [The preparation of CaO-Based pellet using rice husk ash via f=granulation method for potential CO₂ capture.](#) IIUM Engineering Journal , 22 (1) pp.234-244
- 2018** [Influence of water molar ratio on fabrication of silica ceramic membranes via sol-gel dip-coating method.](#) International Journal of Current Science, Engineering & Technology , 1 (Special Issue 1) pp.378-383
- 2018** [Effect of calcination temperature on the silica ceramic membrane synthesized via sol-gel dip-coating method.](#) International Journal of Current Science, Engineering & Technology , Special issue pp.63-67
- 2017** [Synthesis and characterization of silica ceramic membranes via sol-dip coating.](#) Journal of Advanced Research in Materials Science , 39 (1) pp.1-7
- 2017** [Physiochemical characterization of Sn-Zn coatings electrodeposited from an acidic chloride bath in the absence of complexing agent.](#) International Journal of Current Science, Engineering & Technology, Original Research Article | Open Access | AMCT 2017 Malaysia | Special Issue , Special issue pp.493-498

- 2017 [Effect of dipping number on the fabricated silica ceramic membranes via sol dip-coating method.](#) Journal of Advanced Research in Applied Sciences and Engineering Technology , 7 (Issue 1) pp.19-24
- 2016 [Ca\(OH\)₂ nano-pods: investigation on the effect of solvent ratio on morphology and CO₂ adsorption capacity.](#) RSC Advances , 6 (42) pp.36031-36038
- 2015 [Improved CO₂ adsorption capacity and cyclic stability of CaO sorbents incorporated with MgO.](#) New Journal of Chemistry , 40 (1) pp.231-237
- 2014 [Carbon dioxide capture at various temperatures using Ca\(OH\)₂ sorbent fabricated by sol-gel route in ethanol media.](#) Advanced Materials Research , 1024 pp.35-38
- 2014 [Development of Ca\(OH\)₂ nanosorbent for intermediate-high temperature CO₂ capture via wet chemical route in N,N-Dimethylformamide solvent .](#) Advanced Materials Research , 911 pp.410-414
- 2013 [Fabrication of Ca\(OH\)₂ nanostructures by facile solution - based synthesis at various reaction temperatures as CO₂ adsorbent.](#) Materials Science Forum , 756 pp.175-181
- 2011 [Synthesis of TiO₂ nanosized powder photocatalyst via sol-gel method for bacteria inactivation application.](#) Malaysian Journal of Microscopy , 7 pp.161-169
- Conference or Workshop Item**
- 2020 [Preparation of nanosilica powder using rice husk via precipitation method.](#) In: **3rd International Conference on Advanced Materials Characterization Techniques, AMCT 2019**
- 2020 [Characterization of NITI shape memory alloy sintered at different temperatures in reducing environment.](#) In: **3rd International Conference on Advanced Materials Characterization Techniques, AMCT 2019**
- 2019 [Preparation of nano-silica powder from silica sand via sol-precipitation method.](#) In: **"International Conference on X-Rays and Related Techniques in Research and Industry 2018, ICXRI 2018"**
- 2019 [Effect of acceptor impurity \(Cu and Al\) in Zn₄Sb₃ thermoelectric materials via hotisostatic pressing \(HIP\) method.](#) In: **Materials characterization using x-rays and related techniques**
- 2018 [Electrodeposition of zinc antimony alloy thermoelectric materials.](#) In: **"International Conference on Advances in Manufacturing and Materials Engineering 2017, ICAMME 2017"**
- 2018 [Fabrication of silica ceramic membrane via sol-gel dip-coating method at different nitric acid amount.](#) In: **International Conference on Advances in Manufacturing and Materials Engineering 2017, ICAMME 2017**
- 2016 [CTAB-assisted precipitation synthesis of Ca\(OH\)₂ sorbent for CO₂ captures.](#) In: **Seminar on Advanced Materials haracterization Techniques in Research, Industry and Nuclear Applications, AMCT 2015**
- 2016 [Preparation of modified ceramic membranes with silica sol-dip coating for separation biogas application.](#) In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**

2010 [Synthesis of TiO₂ nanosized powder photocatalyst via soft-gel method for bacteria inactivation application.](#) In: **19th Scientific Conference of Electron Microscopy Society of Malaysia (EMSM)**

**Book
Book Section**

2020 [Two-step synthesis of ca-based MgO hybrid adsorbent for pontential CO₂ capturing application.](#) In: **Materials Science Forum** Trans Tech Publications Ltd . ISBN 978-303571664-1 , pp.369-374