



MOHD AL AMIN MUHAMAD NOR

Senior Lecturer
Faculty of Science and Marine Environment
Universiti Malaysia Terengganu



al_amin@umt.edu.my



+609 668 3421



+609 668 3193

QUALIFICATIONS

- Doctor of Philosophy (Composites), Universiti Sains Malaysia
- Master of Science (Engineering Materials – Ceramic), Universiti Sains Malaysia
- Bachelor of Science (Chemistry), Universiti Putra Malaysia

FIELD OF RESEARCH

- Clay based ceramic
- Bioceramic
- Glaze and Glass
- Porous ceramic & ceramic membrane
- Composites

RESEARCH INTEREST

My research focused on development of ceramic materials such as bioceramic, porous ceramic, clay-based materials, glaze and glass. Recent study focusing on development of multilayer ceramic membrane incorporated with TiO_2 , and self-cleaning ceramic.

RESEARCH PROJECTS

- Effect of TiO_2 Nanoparticles Coating to the Properties and performance of Low Cost Photocatalytic Ceramic Membrane on Aquaculture Wastewater Treatment
- The effect of surface modification on physicochemical properties of low-cost titanium dioxide/clay nanocomposite ceramic membranes
- Investigation of composition and clay mineralogy in Kuala Besut and its potential for the manufacture of ceramic products
- The development of novels glass materials as a catalyst for the rapid growth of algae on artificial reefs in Malaysia

EXPERT LINKAGES

- Universiti Sains Malaysia (USM)
- Universiti Tun Hussein Onn Malaysia (UTHM)
- Universiti Malaysia Kelantan (UMK)
- Universiti Teknikal Malaysia Melaka (UTeM)

PROFFESIONAL MEMBERSHIP

- Malaysian Nuclear Society (1043/2016) 2016 - to date

GRANTS

- Project : Effect of TiO₂ Nanoparticles Coating to the Properties and performance of Low Cost Photocatalytic Ceramic Membrane on Aquaculture Wastewater Treatment
- Position : Principal Researcher
- Grant Name : Postgraduate Research Grant (PGRG)
- Status : Active
- Amount : RM20,000.00
-
- Project : The effect of surface modification on physicochemical properties of low-cost titanium dioxide/clay nanocomposite ceramic membranes
- Position : Principal Researcher
- Grant Name : Fundamental Research Grants Scheme (FRGS)
- Status : Completed
- Amount : RM102,000.00
-
- Project : Investigation of composition and clay minerology in Kuala Besut and its potential for the manufacture of ceramic products
- Position : Principal Researcher
- Grant Name : Niche research Grant UMT (NRGS 53131/27)
- Status : Completed
- Amount : RM58,000.00
-
- Project : The development of novels glass materials as a catalyst for the rapid growth of algae on artificial reefs in Malaysia
- Position : Principal Researcher
- Grant Name : Exploratory Research Grant Scheme (ERGS)
- Status : Completed
- Amount : RM126,000.00
-
- Project : Palm Kernel Oil-Based Polyester in Fabrication of Polyurethane Incorporated Multi-Walled Carbon Nanotubes for Wound Dressing Application
- Position : Co Researcher
- Grant Name : Fundamental Research Grants Scheme (FRGS)

Status : Completed
Amount : RM96,000.00

Project : Synthesis, chemical and physical characterization of new vitreous materials
Position : Principal Researcher
Grant Name : Tabung penyelidik Muda UMT
Status : Completed
Amount : RM9,720.00

PUBLICATIONS

Journal Article

1. Mohd Al Amin Muhamad Nor¹, Noor Asliza Ismail Adnen, Mohd Aidil Addha Abdullah, and Mohd Zaky Noh. Effects of Melting Temperature to the Properties of a Ceramic Glaze. *Malaysian Journal of Chemistry*, 2020, Vol. 22(4), 14-19
2. Zaid, S.N.A., Morad, N.A.A.J., Abdullah, M.A.A., Nor, M.A.A.M. (2017). Preliminary study on chemical and physical properties of ball clay and its sintered ceramic pieces from Kampung Dengir, Besut, Terengganu. *Journal of Sustainability Science and Management (JSSM) Special Issue No. 3*; pp 135-142
3. Saibi, A.S.A., and Muhamad Nor, M.A.A. (2018). Preliminary study on Preparation and Characterization of Ceramic Membrane for Water and Wastewater Filtration. *Journal of Current Science, Engineering & Technology*. 1(S1): 154-159
4. Yusof, N.F., Ku Bulat, K.H., Badarulzaman, N.A., Muhamad Nor, M.A.A. (2018). The Effect of Boron Oxide on Concentration of Iron Ion Released from SiO₂-B₂O₃-Na₂CO₃-Fe₂O₃ Glass System. *Journal of Current Science, Engineering & Technology*. 1(S1): 1-6
5. Noh, M.Z., Jamo, U., Muhamad Nor, M.A.A. (2018). Effect of Soaking Time to the Bending Strength of Porcelain with Palm Oil Fuel Ash. *Journal of Current Science, Engineering & Technology*. 1(S1): 82-87

Conference Publication

1. Muhamad Nor, M.A.A., Ismail Adnen, N.A., Noh, M.Z., Warikh, A.R.M., Mohamed, J.J. Effect of sintering temperature on properties of setiu clay sediments. *Materials Science Forum*, 2020, 1010 MSF, pp. 206–210
2. Durumin Iya, S.G., Noh, M.Z., Sharip, N., ...Mohamed, J.J., Muhamad Nor, M.A.A. Prediction model and influence of Fe₂O₃ on the mechanical properties of porcelain with pofa as quartz replacement. *Materials Science Forum*, 2020, 1010 MSF, pp. 244–249
3. Ali, A., Thing, L.S., Azaman, F., Nor, M.A.A.M. Effect of sintering temperature on natural ceramic membrane for aquaculture effluent treatment. *AIP Conference Proceedings*, 2019, 2157, 020011
4. Rahim, F.A.M., Noh, M.Z., Rashid, M.W.A., Mohamed, J.J., Nor, M.A.A.M. Preparation and characterization of ceramic membrane by using palm fibers as pore forming agent. *AIP Conference Proceedings*, 2019, 2068, 5089355

5. Warikh, A.R.M., Maziati Akmal, M.H., Dyana, A.C., ...Mohamed, J.J., Nor, M.A.A.M. The effects of different pyrolysis and annealing temperature on structural and resistivity of $K_{0.5}Na_{0.5}NbO_3$ thin film. AIP Conference Proceedings, 2019, 2068, 5089390
6. Daud, N., Mohamed, J.J., Mohamad, H., ...Noh, M.Z., Nor, M.A.A.M. The effect Ca content on thermal properties of $Ca_{1-x}Cu_3Ti_4O_{12-x}$ ceramics. AIP Conference Proceedings, 2019, 2068, 020023
7. Iya, S.G.D., Noh, M.Z., Kutty, N.A.A., ...Mohamed, J.J., Nor, M.A.A.M. Effect of palm oil fuel ash treatment on physico-mechanical properties of porcelain. AIP Conference Proceedings, 2019, 2068, 5089392
8. Adnen, N.A.I., Abdullah, M.A.A., Nor, M.A.A.M. Synthesis and Characterization of B-S Co-doped TiO_2 Photocatalyst with Variable Boron Concentration. IOP Conference Series: Materials Science and Engineering, 2018, 440(1), 012020
9. Zulkifli, R.C., Razali, M.H., Azaman, F., Ali, A., Nor, M.A.A.M. Synthesis and characterization of Al-Fe-Cu tri-doped TiO_2 by in-situ hydrothermal for degradation of methylene blue dyes. IOP Conference Series: Materials Science and Engineering, 2018, 440(1), 012019
10. Adnen, N.A.I., Abdullah, M.A.A., Nor, M.A.A.M. Synthesis and Characterization of B-S Co-doped TiO_2 Photocatalyst with Variable Boron Concentration. IOP Conference Series: Materials Science and Engineering, 2018, 440(1), 012020
11. Zulkifli, R.C., Razali, M.H., Azaman, F., Ali, A., Nor, M.A.A.M. Synthesis and characterization of Al-Fe-Cu tri-doped TiO_2 by in-situ hydrothermal for degradation of methylene blue dyes. IOP Conference Series: Materials Science and Engineering, 2018, 440(1), 012019
12. Ismail Adnen, N.A., Joulme Morad, N.A.A., Abdullah, M.A.A., Muhamad Nor, M.A.A. (2017). Effect of Dispersant Addition on Properties of Ceramic Pieces from Kampung Dengir, Besut, Terengganu, Malaysia. *Materials Science Forum*, (888) pp 28-32
13. Ahmad Zaid, S.N., Abdul Halim, M.S., Abdullah, M.A.A., Muhamad Nor, M.A.A. (2017). The Effect of Flux to Physical and Chemical Properties of Ceramic Body Using Ball Clay from Kampung Dengir, Besut, Terengganu. *Materials Science Forum*, (888) pp 157-161
14. Mohamad, S.H., Muhamad Nor, M.A.A. (2017). Effect of Na_2O and K_2O on the solubility and chemical properties of P_2O_5 - CaO - Na_2O - K_2O - Al_2O_3 glass. *Materials Science Forum* 888 MSF, pp. 146-150
15. Mohamad, S.H., Nor, M.A.A.M. (2017). Effect of K_2O contents on the releasing of nutrient ions from phosphate glass system. *Key Engineering Materials* 723 KEM, pp. 545-550

Other Outputs

1. Fabrication and Characterization of Porous Porcelain Produced via Polymeric Foam Replication Method and its Application as Core Materials for Sandwich Composites (PhD Thesis, November 2010)
2. Fabrication and Characterization of Porous Hydroxyapatite produced by Gelcasting of Foams (MSc, June 2004)

SUPERVISION

Doctor of Philosophy Degree

Thesis Title : The effect of boron oxide percentage on the rate of ferrous and phosphate ions release from borosilicate glass in an aqueous environment

Student Name : Nurul Fariha Binti Yusof (GSK2008).

Role : Main Supervisor

Status : On-going

Thesis Title : Synthesis, characterization and development of multilayer ceramic membrane of Al-Fe-Cu tri-doped TiO₂/clay nanocomposites

Student Name : Rumaizah Binti Che Zulkifli (P3292)

Role : Main Supervisor

Status : On-Going

Thesis Title : Development and filtration performance of multilayer ceramic membrane in various type of wastewater

Student Name : Fazureen Binti Azaman (P3546).

Role : Co-Supervisor

Status : On-Going

Master Degree

Thesis Title : Synthesis and Characterization of Boron-Sulphur Co-doped TiO₂ Photocatalyst as Self-Cleaning Materials

Student Name : Noor Asliza binti Ismail Adnen (GSK2838).

Role : Main Supervisor

Status : Graduated, 2020

Thesis Title : Effect of Metal Oxides on The Releasing of Nutrient Ions from Phosphate Glass Fertilizer System

Student Name : Siti Hafizah binti Mohamad@ MD Hussin (GSK2000).

Role : Main Supervisor

Status : Graduate, 2016

COURSE TAUGHT

- Ceramic Chemistry
- Industrial Materials Chemistry
- Kinetic chemistry
- Colloid Chemistry
- Petrochemicals
- Polymer Chemistry
- Physical Chemistry
- Principal of Physical Chemistry
- Safety and Management of Chemicals

- Research Method in Chemical Sciences
- Basic Analytical Chemistry
- Practical of Basic Chemistry
- Practical of Physical Chemistry

LINKS

- SCOPUS <http://orcid.org/0000-0001-8445-3776>

OTHERS

-