NORHAZLIN ZAINUDDIN

Ph.D. (Imperial University)

SENIOR LECTURER (Dr.)
Department of Chemistry
Faculty of Science
Tel-Office: 03 89466800
Fax: 03 89435380
norhazlin@upm.edu.my

EXPERTISE
Materials Science, Polymers

Dr. Norhazlin Zainuddin's major research areas involve the modification, characterization and utilization of natural polymers for various applications. Her main research interests are the preparation and characterization of bio-based hydrogel especially from sago starch. These hydrogels are prepared via chemical or irradiation techniques. Her main focus is to investigate the potential of these hydrogels as superabsorbent, drug carriers and heavy metal scavengers. Dr Norhazlin Zainuddin is also interested in synthesizing various aluminosilicate glasses from waste materials for glass polyalkenoate cement (GPC). The mechanical strength and the setting reaction of the glass polyalkenoate cements are studied. The glass structure and the chemistry of the setting reaction in GPC are studied using solid state NMR spectroscopy. Major sponsors of her research include the Transdisciplinary Research Grant Scheme (TRGS), Fundamental Research Grant Scheme (FRGS) and Research University Grant Scheme (RUGS).

CURRENT RESEARCH INTERESTS:

- Encapsulation of Newcastle disease virus (NDV) vaccines with biodegradable carriers
- Utilization of biopolymers to improve the stability and efficacy of NDV vaccines for mass vaccination approach in chicken.
- Bio-based hydrogel for drug delivery system and metal scavenger.
- Development of environmental stimuli-responsive bio-based hydrogel a.k.a smart hydrogel for drug delivery system and metal scavengers.
- Glass polyalkenoate cement from waste materials
- Utilization of waste materials such as clamshell, soda lime silica glass and rice husk as raw materials for production of GPC for dental applications.

LINK TO POSTGRADUATE FIELD OF STUDY:
Materials Science, Polymers

ADDITIONAL INFORMATION: