

ERNA NORMAYA BINTI ABDULLAH



- KULLIYAH OF SCIENCE
- IIUM Kuantan Campus
- Email address:
ernanormaya@iium.edu.my

المؤهل العلمي

- Doctor of Philosophy (Chemistry)
- Master of Science (Chemistry)

مسؤوليات التدريس

ADVANCE ANALYTICAL METHODS FOR HALAL HARAM PRODUCTS	2018/2019
CHEMISTRY OF FATS AND OILS	2015/2016 2016/2017 2017/2018
EMULSIFIERS AND SURFACTANTS	2016/2017 2017/2018
FINAL YEAR PROJECT I	2020/2021
FINAL YEAR PROJECT II	2020/2021
FLAVOURS AND FRAGRANCES	2016/2017 2017/2018 2018/2019 2020/2021
FOOD CHEMISTRY & BIOTECHNOLOGY	2019/2020
HALAL AND HARAM IN FOOD INGREDIENTS AND PROCESSING	2018/2019 2019/2020
HALAL FOODS AND RELATED PRODUCTS	2016/2017 2017/2018
INDUSTRIAL TRAINING/INTERNSHIP	2016/2017 2017/2018
INORGANIC CHEMISTRY I	2015/2016 2019/2020
INORGANIC CHEMISTRY II	2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
ORGANOMETALLIC & BIOINORGANIC CHEMISTRY	2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
PROJECT SEMINAR	2017/2018
RESEARCH METHODOLOGY	2017/2018 2020/2021

المشاريع البحثية

In Progress

- 2020 - Present** Development of Bio Compost Char
- 2019 - Present** Analysis of Blackwater Treatment of the Green Toilet System in Auto-City, Penang
- 2019 - Present** Optimizing and Mechanistic Interaction Studies of a Fluorescent Chemosensor for Metal-Ion Recognition in Aqueous Media and Living Cells using Linked Thiosemicarbazone?PAHs: Experimental and Theoretical Approaches
- 2019 - Present** Chemosensor Development for Metal Ions Recognition in Lake and River Water Samples
- 2016 - Present** Synthesis, Characterization and Reaction Mechanism Study of a Novel HIV Protease Inhibitor from a Sugar-based Thiosemicarbazone Series using Density Functional Theory
- 2015 - Present** Supercritical Fluids Extraction Method Development for Extraction of a New Potential Halal Protease from Anacardium occidentale Fruit

Completed

- 2016 - 2020** Synthesis, Characterization and Reaction Mechanism Study of a Novel HIV Protease Inhibitor from a Sugar-based Thiosemicarbazone Series using Density Functional Theory
- 2015 - 2019** Supercritical Fluids Extraction Method Development for Extraction of a New Potential Halal Protease from Anacardium occidentale Fruit
- 2015 - 2019** Density Functional Theory Studies on Synthesis, Characterization and Antibacterial Activity of Heteroaromatic Substitution on 4N-Sulfonamide Thiosemicarbazones

المنشورات

Article

- 2020** [Synthesis of thiosemicarbazone-based colorimetric chemosensor for Cu²⁺ ions' recognition in aqueous medium: Experimental and theoretical studies.](#) Journal Of Molecular Structure , 1212 pp.1-10
- 2020** [DFT/TD-DFT study on development and optimization of 1- anilino-3-phenyliminourea as a colorimetric chemosensor for Hg²⁺ recognition in aqueous medium.](#) Journal of Molecular Structure , 1206 pp.1-7
- 2020** [Artocarpus altilis extracts as a foodborne pathogen and oxidation inhibitors: RSM, COSMO RS, and molecular docking approaches.](#) Scientific Reports , 10 (1) pp.1-14
- 2020** [Inhibitory effects of Manihot esculenta extracts on food-borne pathogens and their antioxidant properties: supercritical fluid extraction, statistical analysis, and molecular docking study.](#) Journal of Food Process Engineering , e13452

- 2020** [The applicability of using a protease extracted from cashew fruits \(*Anacardium occidentale*\), as possible meat tenderizer: an experimental design approach.](#) Journal of Texture Studies
- 2020** [Silver\(I\) dicyanonitrosomethanide, Ag\[ONC\(CN\)₂\] complex as catalyst for the selective oxidation of styrene to benzaldehyde.](#) Science Letters , 14 (2) pp.74-87
- 2020** [Optimization of a protease extraction using a statistical approach for the production of an alternative meat tenderizer from *Manihot esculenta* roots.](#) Journal of Food Science and Technology , 57 (8) pp.2852-2862
- 2020** [Statistical study on the interaction factors of Polypropylene-Graft-Maleic Anhydride \(PP-g-MA\) with Graphene Nanoplatelet \(GNP\) at various Poly\(Lactic Acid\)/Polypropylene \(PLA/PP\) blends ratio.](#) Statistical Study on the Interaction Factors of Polypropylene-Graft-Maleic Anhydride (PP-g-MA) with Graphene Nanoplatelet (GNP) at Various Poly(Lactic Acid)/Polypropylene (PLA/PP) Blends Ratio
- 2020** [Poly\(lactic acid\)/acrylonitrile butadiene styrene nanocomposites with hybrid graphene nanoplatelet/organomontmorillonite: effect of processing temperatures.](#) International Polymer Processing , 35 (4) pp.355-366
- 2019** [Chemosensor development of Cu²⁺ recognition using 1,5-diphenylthiocarbazone: optimization, COSMO-RS and DFT studies.](#) Journal of The Brazilian Chemical Society , 30 (9) pp.1850-1859
- 2019** [The effect of vanillin on the oxidative stability of palm olein.](#) Malaysian Journal Of Analytical Sciences , 23 (5) pp.861-869
- 2019** [Adsorption study on the removal of copper ions from aqueous solution using sodium hydroxide-modified *Carica papaya* peels.](#) Malaysian Journal of Analytical Sciences , 23 (6) pp.926-937
- 2019** [Optimization of a protease extraction using a statistical approach for the production of an alternative meat tenderizer from *Spondias cytherea* roots.](#) Journal of Food Processing and Preservation , 43 (11) pp.1-14
- 2019** [COSMO-RS and DFT studies on development and optimization of quercetin as a chemosensor for Fe³⁺ recognition in aqueous medium.](#) Journal Of Molecular Structure , 1184 pp.538-545
- 2018** [Synthesis, characterization and preliminary study on acetylpyrazine N\(4\)butylthiosemicarbazone as a potential CDK2 inhibitor combined with DFT calculations.](#) Journal of Brazilian Chemical Society , 29 (10) pp.2197-2206
- 2018** [Synthesis, structural, density functional theory, and X-ray diffraction study Of ZN\(II\) N-isopropylbenzylidithiocarbamate: anti-corrosion screening in acid media.](#) Indonesia Journal of Chemistry , 18 (4) pp.755-765
- 2013** [Density functional theory studies on vibrational spectra \(E\)-N-\(4-carboxylphenyl\)-2-\(1-\(pyrazin-2-yl\)ethylidene\) hydrazinecarbothioamide.](#) Malaysia Journal of Chemistry , 15 (1) pp.033-040
- 2011** [3-\(2-Hydroxyphenyl\)-1-\[\(E\)-\[1-\(pyrazin- 2-yl\)ethylidene\]amino}thiourea monohydrate.](#) Acta Crystallographica Section E: Crystallographic Communications , 67 (4) pp.o943-o944

Conference or Workshop Item

- 2020 [Durio zibethinus rind as tyrosinase inhibitor for skin whitening agents in cosmetic products: RSM, COSMO-RS, PCA and molecular docking studies.](#) In: **Virtual Symposium on Science 2020**
- 2020 [Statistical analysis study on optimization of 4-acetylpyridine thiosemicarbazone as corrosion inhibitor.](#) In: **Virtual Symposium on Sciences 2020 (VSoS 2020)**
- 2019 [Thermal stability of melt-blended poly \(lactic acid\) \(PLA\)/polyamide 66 \(PA66\)/graphene nanoplatelets \(GnP\).](#) In: **1st Process Systems Engineering & Safety (ProSES) Symposium 2019**
- 2019 [Preliminary study on developing 1,5-Diphenylcarbozone as a chemosensor againsts Hg²⁺ ions recognition in aqueous media.](#) In: **International Conference on Clean Water, Air and Soil (CLEANWAS 2019)**
- 2019 [Chemosensor development for cobalt ion recognition using 2-acetylpyrazine thiosemicarbazone: experimental and theoretical approach.](#) In: **32nd International Conference of Analytical Sciences (SKAM32)**
- 2019 [2-acetylthiophene thiosemicarbazone as mushroom tyrosinase inhibitor: insights from kinetic, RDG, molecular docking, and DFT studies.](#) In: **International Conference in Organic Synthesis 2019 (ICOS2019)**
- 2019 [Preliminary study in discovering 2-geranylphenol from Lansium domesticum leaves as oxidation and tyrosinase inhibitor for anti-aging and skin whitening agents: experimental and theoretical study.](#) In: **The 32nd Symposium of Malaysia Analytical Sciences : Simposium Kimia Analisis Malaysia (SKAM 32)**
- 2019 [Salasa adulis as a novel dual-functional food additive for antimicrobial and antioxidant properties: experimental and theoretical approach.](#) In: **The 32nd Symposium of Malaysia Analytical Sciences : Simposium Kimia Analisis Malaysia (SKAM 32)**
- 2019 [Preliminary study in discovering 2-propen-1-one, 1-\(2,4-dihydroxyphenyl\)-3-\(4-methoxyphenyl\)- from syzygium aqueum leaves as a tyrosinase inhibitor in food product: experimental and theoretical approach.](#) In: **International Conference on Clean Water, Air and Soil (CLEANWAS 2019)**
- 2018 [Discovery and development of halal protease from Spondias cytherea for meat tenderization.](#) In: **International Conference of Analytical Sciences (SKAM31)**
- 2018 [Chemosensor development of cu²⁺ recognition using 1,5-diphenylcarbazone: optimization, cosmo-RS and DFT studies.](#) In: **International Conference of Analytical Sciences (SKAM31)**
- 2018 [Statistical analysis and molecular docking study on halal potential antioxidant from anacardium occidentale fruits.](#) In: **International Conference of Analytical Sciences (SKAM31)**
- 2018 [Chemosensor development using 2-acetylpyrrole thiosemicarbazone for cu²⁺ ion recognition in aqueous medium: experimental and theoretical studies.](#) In: **International Conference of Analytical Sciences (SKAM31)**
- 2018 [Synthesis, characterization, reaction mechanism and theoretical study of antimicrobial inhibitor from heteroaromatics based thiosemicarbazone.](#) In: **International Conference of Analytical Sciences (SKAM31)**

2017 [Extraction of protease from Anacardium occidentale \(Cashew\) fruit using response surface methodology.](#) In: **6th International Conference on Advancement in Science and Technology (iCAST 2017)**

2017 [Adsorption study on the removal of cu ions from aqueous solution using NAOH-modified Carica papaya peels.](#) In: **International Conference of Analytical Sciences (SKAM30)**

Book

2014 [Protease extraction from Horse mango \(Mangifera foetida lour\) kernels.](#) LAP Lambert Academic Publishing . ISBN 978-659-58540-1

Book Section

2019 [Optimization of research and manufacturing processes in product and service.](#) In: **Industrial Revolution 4.0 : a future outlook** Universiti Malaysia Pahang . ISBN 9789672226505 , pp.128-141

2019 [Optimization of research and manufacturing processes in product and service.](#) In: **Industrial Revolution 4.0 : a future outlook** Universiti Malaysia Pahang . ISBN 9789672226505 , pp.128-141