

FIONA HOW NI FOONG



- KULLIYAH OF SCIENCE
- IIUM Kuantan Campus
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ACADEMIC QUALIFICATION

- Synthesis
- Industrial Chemistry

TEACHING RESPONSIBILITIES

BASIC CHEMISTRY	2012/2013 2013/2014
ENVIRONMENTAL CHEMISTRY	2015/2016
FOOD TOXICOLOGY AND ASSESSMENT	2011/2012 2013/2014
HEALTH RISK ASSESSMENT	2015/2016 2017/2018
INDUSTRIAL CATALYSIS	2020/2021
INDUSTRIAL TOXICOLOGY	2016/2017 2017/2018 2018/2019 2020/2021
INORGANIC CHEMISTRY I	2015/2016 2017/2018 2018/2019 2020/2021
INORGANIC CHEMISTRY II	2014/2015 2015/2016 2017/2018
NATURAL RESOURCES MANAGEMENT	2011/2012
OCCUPATIONAL HEALTH	2016/2017 2017/2018 2019/2020
OCCUPATIONAL SAFETY	2016/2017
ORGANIC CHEMISTRY II	2013/2014
ORGANOMETALLIC & BIOINORGANIC CHEMISTRY	2014/2015 2019/2020
RESEARCH METHODOLOGY	2012/2013 2016/2017 2018/2019 2020/2021
TOXICOLOGY	2010/2011
WASTE MANAGEMENT	2015/2016 2016/2017 2019/2020

RESEARCH PROJECTS

In Progress

- 2018 - Present** Chemical analyses of various heteroatom ligands
- 2017 - Present** Synthesis, Characterization And Biological Studies Of Substituted Thiadiazine Derivatives And Their Metal Complexes
- 2015 - Present** Antimicrobial efficacy of metalloantibiotics against surgical site infections
- 2013 - Present** Polyamine Sulfur Conjugates: A Paradigm for Selective Drug Delivery to Cancer Cells via Polyamine Transport System

Completed

- 2015 - 2020** Antimicrobial efficacy of metalloantibiotics against surgical site infections
- 2014 - 2016** Synthesis, Characterization and Biological Study of Metal Complexes Derived from Thymoquinone
- 2013 - 2018** Polyamine Sulfur Conjugates: A Paradigm for Selective Drug Delivery to Cancer Cells via Polyamine Transport System
- 2012 - 2013** In-Vivo Study: Investigation of burn wound healing properties with cucumber extract
- 2012 - 2015** Synthesis, Characterization and Biological Studies of Dithiocarbamates Derivatives and their Transition Metal Complexes
- 2010 - 2013** Synthesis and Characterization of Multidentate Chelating Agent and Their Metal Complexes
- 2010 - 2012** Synthesis and Characterization of Heteroatom Ligand and Its Metal Complexes

PUBLICATIONS

Article

- 2019** [A new structural motif for cadmium dithiocarbamates: crystal structures and Hirshfeld surface analyses of homoleptic zinc and cadmium morpholine dithiocarbamates.](#) Zeitschrift für Kristallographie - Crystalline Materials , 234 (5) pp.341-349
- 2019** [S-quinolin-2-yl-methyldithiocarbamate-based magnetic adsorbent for magnetic solid-phase extraction of heavy metals from water samples.](#) International Journal of Environmental Analytical Chemistry
- 2017** [Antibiotic susceptibility study Of metal-gentamicin complexes against Staphylococcus aureus biofilms.](#) International Medical Journal Malaysia , 16 (Supplementary Issue 2) pp.1-1
- 2017** [Synthesize and characterization of putrescine sulfur analogues.](#) ESTEEM Academic Journal , 13 (Special Issue) pp.91-97
- 2016** [Antibiotic susceptibility study of metal-gentamicin complexes against Pseudomonas aeruginosa biofilms.](#) International Medical Journal Malaysia , 15 (Supplement Issue) pp.9-9

- 2015** [Crystal structure of benzyltriphenylphosphonium chloride monohydrate.](#) Acta Crystallographica Section E Structure Reports Online , 71 pp.o410-o411
- 2015** [Structure determination and tautomeric transition of 3-amino-1-\[\[bis\(benzylsulfanyl\)methylidene\]amino\]urea.](#) Journal of Structural Chemistry , 56 (7) pp.1431-1436
- 2015** [Biological properties of cucumber \(Cucumis sativus L.\) extracts = Sifat-sifat biologi ekstrak timun \(Cucumis sativus L.\) .](#) Malaysian Journal of Analytical Sciences (MJAS) , 19 (6) pp.1218-1222
- 2015** [Synthesis, crystal structure and cholinesterase enzymes inhibitory activities of new pyridine alkaloid derivative.](#) Asian Journal of Chemistry , 27 (11) pp.4092-4096
- 2015** [Crystal structure of S -\(4-methylbenzyl\) piperidinedithiocarbamate.](#) Acta Crystallographica Section E Structure Reports Online , E71 pp.o647-o647
- 2013** [Eupalitin from Asparagus falcatus \(Linn.\) has anticancer activity and induces activation of caspases 3/7 in human colorectal tumor cells.](#) Journal of Medicinal Plants Research , 7 (20) pp.1401-1405
- 2012** [Synthesis, characterization and antibacterial activity of Schiff base derived from S-methyldithiocarbamate and methylisatin.](#) Journal of Chemical Crystallography , 42 (2) pp.173-179
- 2012** [2,3,9,10,15,16-Hexaazatetracyclo\[6.6.2.04,16.011,15\]hexadecane dihydrate.](#) Acta Crystallographica Section E Structure Reports Online , 68 (8) pp.o2545-o2545
- 2011** [Synthesis, characterisation and biological activities of 2-Methylbenzyl 2-\(dipyridin-2-yl methylene\)hydrazinecarbodithioate.](#) Journal of Chemical Crystallography , 41 (4) pp.491-495
- 2011** [Dipotassium disulfanilamidate trihydrate.](#) Acta Crystallographica Section E , E67 pp.m1071-m1071
- 2011** [4-Hydroxy-3-methoxybenzaldehyde-nicotinamide \(1/1\).](#) Acta Crystallographica Section E Structure Reports Online , E (67) pp.o3168-o3168
- 2011** [Synthesis, characterization and cytotoxic activity of S-benzylthiocarbamate Schiff bases derived from 5-fluoroisatin, 5-chloroisatin, 5-bromoisatin and their crystal structures.](#) Journal of Chemical Crystallography , 41 (12) pp.1630-1641
- 2011** [The crystal structure and cytotoxicity of Centrosymmetric Copper\(II\) complex derived from S-methyldithiocarbamate with isatin.](#) Journal of Chemical Crystallography , 41 (12) pp.1866-1871
- 2010** [Synthesis, characterization and biological activities of 3-methylbenzyl 2-\(6-methylpyridin-2-ylmethylene\)hydrazine carbodithioate and its transition metal complexes.](#) Transition Metal Chemistry , 35 (7) pp.871-876
- 2009** [Synthesis and structure determination of s,s'-\(Naphthalen-2-ylmethyl sulfanyl \(1-p-tolyl-ethylidene\) hydrazine .](#) Journal of Chemical Crystallography , 39 (12) pp.894-897
- 2008** [Synthesis, characterization and biological studies of S-benzyl-b-N-\(benzoyl\) dithiocarbamate and its metal complexes.](#) Polyhedron , 27 pp.3325-3329

- 2007 [S-Quinolin-2-ylmethylthiocarbamate](#). Acta Crystallographica Section E Structure Reports Online , E63 pp.o3137-o3138
- Conference or Workshop Item**
- 2019 [Comparison of the in vitro and in vivo toxic effects of thymoquinone using oral cancer HSC-3 and HSC-4 cell lines, oral fibroblasts, HACAT cell line, and Zebrafish embryos](#). In: **2017 Conference on Biomedical and Advanced Materials, Bio-CAM 2017**
- 2018 [Analysis of cadmium and chromium content in raw and treated leachate from Jerangau-Jabor landfill site, Kuantan, Pahang, Malaysia](#). In: **International Conference of Analytical Sciences 2018 (SKAM 31)**
- 2018 [Preparation and characterization of s-quinolin-2-ylmethylthiocarbamate functionalized magnetic nanoparticles](#). In: **International Conference of Analytical Sciences 2018 (SKAM 31)**
- 2018 [Dithiocarbamate-immobilized silica coated magnetic Fe₃O₄ nanoparticles for solid-phase extraction of lead in shellfish](#). In: **International Conference of Analytical Sciences (SKAM31)**
- 2018 [Molecular docking of substituted schiff bases derived from s-benzylthiocarbamate as potential anticancer agents](#). In: **International Conference on Drug Discovery and Translational Medicine 2018 (ICDDTM '18) "Seizing Opportunities and Addressing Challenges of Precision Medicine**
- 2017 [Antimicrobial activities of metal-natural extract complexes](#). In: **International Conference on Advancement in Science and Technology (iCAST 2017) - 'Transforming Future Through Plant Research'**
- 2017 [An investigation on cytotoxicity effect of putrescine-sulphur analogues in breast cancer \(MCF-7\), human lung adenocarcinoma \(A549\) and colorectal cancer \(HCT-8\) cell lines](#). In: **Medical Research Symposium 2017**
- 2017 [A review on polyamine analogues and its cytotoxic effects against selected human cancer cell lines](#). In: **Fundamental Science Congress 2017 (FSC 2017)**
- 2016 [Antibiotic susceptibility study of metal-gentamycin complexes against pseudomonas aeruginosa biofilms](#). In: **Medical Research Symposium & Pacific Partnership in conjunction with Kuantan Research Day 2016**
- 2016 [Comparison between cold temperature \(\$\leq 4^{\circ}\text{C}\$ \) and room temperature \(\$\approx 25^{\circ}\text{C}\$ \) mediated synthesis for putrescine-sulphur compound](#). In: **KAHS Research Week (KRW) 2016 in conjunction with 1st Allied Health Scientific Colloquium (AHSC) 2016**
- 2016 [Synthesize and characterization of putrescine containing sulphur](#). In: **International Joint Conferences on Science Technology and Social Science**
- 2016 [Synthesis and characterization of spermidine containing sulphur](#). In: **13th Universiti Malaysia Terengganu International Annual Symposium on Sustainability Science and Management (UMTAS 2016)**
- 2016 [Biological properties of Cucurbita maxima extracts](#). In: **The 14th Symposium of Malaysian Society of Applied Biology (MSAB 2016)**

- 2015 [Synthesis, characterization and structural studies of sodium morpholine-4-Carbodithioate and its metal complexes.](#) In: **28th Regional Symposium Malaysian Analytical Sciences (SKAm28)**
- 2014 [Biological properties of cucumber \(*Cucumis sativus* L.\) extracts.](#) In: **27th Regional Symposium of Malaysia Analytical Sciences**
- 2013 [Synthesis and characterization of various type of Azines as potential bioactive agents.](#) In: **2013 2nd International Conference on Environment, Chemistry and Biology (IPCBEE)**
- 2013 [Nitrogen Sulfur Compounds - Cytotoxic study and their potential application.](#) In: **IIUM Research, Invention and Innovation Exhibition, IRIIE 2013**
- 2012 [Crystal structure of heterodonor ligands with their potential application.](#) In: **IIUM Research, Invention and Innovation Exhibition (IRIIE) 2012**

Book

- 2011 [Research methodology in chemistry.](#) IIUM Press . ISBN 978-967-418-202-1

Book Section

- 2011 [Research methodology: an introduction.](#) In: **Research Methodology in Chemistry** IIUM Press . ISBN 9789674182021 , pp.1-5
- 2011 [Good chemistry research.](#) In: **Research Methodology in Chemistry** IIUM Press . ISBN 9789674182021 , pp.6-9