

# CURRICULUM VITAE



A. PERSONAL DETAILS	
Full name	Ili Syazana binti Johari
Date of Birth	24 November 1984
MyKad No.	841124-14-6324
Citizenship	Malaysian
Race	Malay

B. CONTACT DETAILS	
Home address	No 19, Jalan Idaman Murni ½, Taman Idaman Murni, Bandar Baru Salak Tinggi, 43900 Sepang, Selangor.
Workplace Address	Jabatan Kimia, Fakulti Sains, 43400, UPM Serdang, Universiti Putra Malaysia, Selangor.
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C. ACADEMIC QUALIFICATION			
Nama Sijil / Kelayakan ( <i>Certificate / Qualification obtained</i> )	Nama Sekolah / Institusi ( <i>Name of School / Institution</i> )	Tahun ( <i>Year obtained</i> )	Bidang pengkhususan ( <i>Area of Specialization</i> )
PhD	School of Chemistry, University of Bristol, Bristol, United Kingdom	2019	Analytical Chemistry
Master of Science	Faculty of Science, Universiti Putra Malaysia	2013	Analytical Chemistry

Bachelor of Science	Faculty of Science and Technology, Universiti Malaysia Terengganu	2007	Analytical and Environmental Chemistry
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#### D. AWARD/SCHOLARSHIP

1. Royal Society of Chemistry (RSC) best poster award in the 11<sup>th</sup> international Fundamental Science Congress (iFSC) 2019.
2. Best student Award for Analytical and Environmental Chemistry course (Overall), Universiti Malaysia Terengganu. 2007.
3. Bumiputera Academic Training Scheme (SLAB) scholarship from Ministry of Higher Education in MSc study at Universiti Putra Malaysia (2008).
4. IPTA Academic Training Scheme (SLAI) scholarship from Ministry of Higher Education in PhD study at university of Bristol (2013).

#### E. RESEARCH TRAINING

<b>Nuclear Malaysia</b>	I did my industrial training with formerly known as Technical Industry Division at Nuclear Malaysia in 2006 for three months. During my internship, I did a project entitled "Investigation of organic pollutants in marine ecosystem" under the supervision of Dr. Abdul Khalik bin Hj Wood. This project exposed me to extraction method of organic compounds and their analysis using GC-MS.
<b>Universiti Malaysia Terengganu</b>	I did extraction of polyaromatic hydrocarbons (PAHs) from sediment samples collected from Che Wan Dagang Island, Terengganu during my final year project which was undertaken for nearly 6 months. I was supervised by Prof Dr. Norhayati bt Mohd Tahir who is an expert in this area. During this period, I was exposed to basic organic extraction protocols such as soxhlet extraction, column separation, concentration of extracts and its analysis and quantification using GC-FID.
<b>Universiti Putra Malaysia</b>	I did synthesis and modification of natural fiber (opefb) aimed to improve its performance as adsorbent. The adsorption capacity of the modified fiber were tested towards series of heavy metals from aqueous solution. The concentration of metal solution during pre- and post- adsorption study were analyzed using ICP-OES. The adsorption capacity for each metals were determined and Ni(II) and Cu(II) were found to have highest adsorption rate towards the modified fiber. I've published two papers from this work in <i>Molecules</i> and <i>Polymers</i> .
<b>University of Bristol</b>	I gained early training in operating instruments including GC-FID, GC-MS and GC-qTOF-MS from my supervisor, Dr Ian D Bull who is also a Manager of NERC Life Science Mass Spectrometry Facility (LSMSF), Bristol node. During my PhD journey, I was a frequent user of the instruments which I operated and did minimum maintenance of the instruments in daily to weekly basis by myself. My PhD project entitled, 'Lipidomic characterisation and profiling of soil for forensic investigations' is a

preliminary test of a soil discrimination using an 'omics' approach. Different soils background were sampled around Southeast England and ultrasonic extraction method were applied to get the lipid extracts. Derivatization of samples were carried out prior to instrumental analysis. GC-FID were used for total quantification as well as sample screening. GC-MS and GC-qTOF-MS were used subsequent to GC-FID analysis for qualitative study. Several types of software were tested to process the 'big data' output from the GC-MS. These were includes open source software such as MetAlign, AMDIS, MetaboAnalyst, XCMS as well as licensed software like MATLAB, MassHunter Qualitative Analysis, MassHunter Profinder and Mass Profiler Professional. Processing of the data involves feature extraction, chromatogram deconvolution, background subtraction, chromatogram alignment and filtering. MassHunter Qualitative Analysis from Agilent was found to be the best software that compatible with the output from the GC-qTOF-MS that I've used. As this is a learning curve in my PhD research, I've spent a lot of times finding the best workflow and best parameter fit for most samples that I've had. However, these parameters varies from dataset to dataset depending on the nature of soils and the hypothesis. In order to achieve this stage, I've had several consultation with experts of this software from Netherland and Germany. During my candidature, I've presented to the group seminar for at least once for each semester. It is also compulsory for each PhD candidate to give a literature talk to all students in chemistry department in second semester and a final year talk after three years of candidature. Moreover, I've had experience in presenting talks and posters in several meetings inside and outside Bristol every year. Furthermore, since my first year in University of Bristol, I've involve in outreach program which requires me to communicate the research conducted in our group to school students and to the public. Annual event like 'Festival of Nature' and 'Bristol Bright Night' is a platform for many researchers to communicate their findings to people out of this area. In terms of publications, I am currently drafting two papers from my thesis which aimed to be published in Forensic and Organic Geochemistry journals.

## F. PUBLICATIONS

### Theses

1. Lipidomic characterisation and profiling from soil for forensic investigations. PhD thesis. Faculty of Science, University of Bristol, UK. (2018).
2. Preparation and characterization of Poly(ethylhydrazide) grafted oil palm empty fruit bunch for removal of copper and nickel ions from aqueous solutions. MSc thesis. Faculty of Science, Universiti Putra Malaysia. (2012).
3. Determination and characterization of polycyclic aromatic hydrocarbons (PAHs) in Che Wan Dagang Island, Terengganu. BSc thesis. Faculty of Science and Technology, Universiti Malaysia Terengganu. (2007)

### Journals

1. Razak, M.R., Yusof, N.A., Aris, A.Z., Nasir, H.M., Haron, M.J., Ibrahim, N.A., Johari, I.S., and Kamaruzaman, S. (2020). Phosphoric acid modified kenaf fiber (K-PA) as green adsorbent for the removal of copper (II) ions towards industrial waste water effluents. *Reactive and Functional Polymers*. Volume 147. 104466.
2. Johari, I.S., Yusof, N.A., Haron, M.J., and Nor, S.M.M. (2013). Preparation and characterization of Poly(ethylhydrazide) grafted oil palm empty fruit bunch for removal of Ni (II) ion in aqueous environment. *Polymers*. 5, 1056-1067.
3. Johari, I.S., Yusof, N.A., Haron, M.J., and Nor, S.M.M. (2013). Preparation and characterization of Poly(ethylhydrazide) grafted oil palm empty fruit bunch fibre for the removal of Cu (II) ions from an aqueous environment. *Molecules*. 18, 8461-8472.

### Conferences/Seminars

1. I.S. Johari, P.J. Gates and I.D. Bull. A lipidomics approach to distinguish vegetative inputs to peat for palaeoclimatic reconstruction. Presented at the 11<sup>th</sup> International Fundamental Science Congress (iFSC). (Poster). 2019.
2. I.S. Johari, P.J. Gates, A. MacDonald, S. Freeman, I.D. Bull. Characterisation of and differentiation between complex biogeochemical matrices – A ‘big data’ lipidomics approach. Presented in International Meeting on Organic Geochemistry, Florence, Italy. (Oral). 2017.
3. I.S. Johari, P.J. Gates, I.D. Bull. Lipid profiling from soil for forensic investigations: Method validation. Presented in Syngenta Poster competition, Bristol, UK. (Poster). 2015.
4. I.S. Johari, P.J. Gates, I.D. Bull. Comprehensive lipid profiling of soil. Presented in British Organic Geochemistry Society Meeting, Glasgow, UK. (Oral). 2015.
5. I.S. Johari, P.J. Gates, I.D. Bull. Lipid Profiling for soil discrimination: A potential tool for forensic applications. Presented in British Organic Geochemistry Society (BOGS) Meeting, Liverpool, UK. (Poster). 2014.
6. I.S. Johari, P.J. Gates, I.D. Bull. Lipidomics characterisation of soil for environmental and forensic investigations. Presented in Natural Systems and Processes poster sessions, Bristol, UK. (Poster). 2014.
7. Johari, I.S., Wan Yunus, W.M.Z., Haron, M.J., Yusof, N.A. Synthesis and Characterization of fatty thiohydrazides from fatty hydrazide. Presented in the 1<sup>st</sup> Fundamental Science Congress, UPM. (Oral). 2009.

- Ili Syazana Johari, Nor Azah Yusof, Md Jelas Haron, Siti Mariam Mohd Nor, Soleha Mohamat Yusuff, Nurul Ain A.Talib. Preparation and Characterization of oil palm empty fruit bunch fiber grafted polymethylacrylatehydrazide (OPEFB-g-pmah) for removal of copper ion from aqueous solutions. Presented in the 24<sup>th</sup> Symposium of Malaysia Analytical Sciences. (poster). 2011.

#### **G. TEACHING EXPERIENCE**

I have conducted a tutorial class for Organic Chemistry I course (CHM 3201) for semester 2 2017/2018 during my tutorship. Apart from that, I've shared my basic chemistry knowledge in several practical classes; organic chemistry I (CHM 3201), organic chemistry III (CHM 3203) and chemical kinetics (CHM3103). This is mainly involves theoretical concepts in chemistry and basic laboratory skills for chemists. Apart from that, I am currently involve in a community service responsibility (CSR) work by teaching to the fourth form students at Sekolah Agama Menengah Bandar Baru Salak Tinggi once a week.

#### **H. PROFESSIONAL ACTIVITIES**

- Organizing committee of Industrial Chemistry Seminar (SKI), 2018 and 2020.
- Poster judge for Industrial Chemistry Seminar, 2019.
- Organizing committee of International Fundamental Science Congress (iFSC), 2019.
- Supervisor for UPM-MRSM 'Tunas Saintis' Project, 2019.
- Examiner for undergraduate proposal and final seminar.
- Examiner for undergraduate Final Year Project report.

#### **I. PUBLIC ENGAGEMENT ACTIVITIES**

- Facilitator in UPMSTEM at SMK Bandar Tasik Selatan, KL. (2018)
- Facilitator in UPMSTEM Explorace at SK Intan Baiduri, KL. (2017)
- Science communicator representing Organic Geochemistry Unit, University of Bristol in Festival of Nature event. (2017, 2016 and 2014)
- Science communicator representing Organic Geochemistry Unit, University of Bristol at Bristol Bright Night event. (2015)
- Science communicator representing Organic Geochemistry Unit, University of Bristol at Thornbury Science Festival. (2015)

#### **J. REFERENCES**

- Prof Dr. Zulkarnain Zainal. Head of Chemistry department, UPM.
- Prof. Dr. Nor Azah binti Yusof. Chemistry department, UPM. (Main MSc supervisor)
- Dr. Ian D Bull. School of Chemistry, University of Bristol. (Main PhD supervisor)
- Dr. Paul J Gates. School of Chemistry, University of Bristol. (Co-supervisor PhD)