





Dr. Nurul Akmal Bt Che Lah Senior Lecturer Faculty of Manufacturing Engineering Universiti Malaysia Pahang 26600 Pekan, Pahang Malaysia Tel: +6 (09) 424-5825 / +6 (011) 3743 0086 Email: akmalcl@ump.edu.my

Personal Particulars

Age	: 32 years
Date of Birth	: 13 Dec 1985
Gender	: Female
Marital Status	: Married

Academic Qualifications

Highest Education

Level	: Doctor of Philosophy (DPhil)
Field of Study	: Advanced Materials (Inorganic Chemistry)
Major	: Nanotechnology
University	: University of Oxford, Oxford, UK
Located In	: Oxford, UK

Second Highest Education

Level	: Master's Science (MSc)
Field of Study	: Advanced Materials
Major	: Nanotechnology
University	: University of Malaya, Kuala Lumpur, Malaysia
Located In	: Kuala Lumpur, Malaysia.

Third Highest Education

Level	: Bachelor's Degree (BEng)
Field of Study	: Engineering (Materials)
Major	: Mechanical
University	: University of Malaya, Kuala Lumpur, Malaysia
Located In	: Kuala Lumpur, Malaysia

Fourth Highest Education

Level	: Matriculation
Field of Study	: Physical Stream
Major	: General Engineering
Institute	: Pusat Asasi Sains University of Malaya, Kuala Lumpur, Malaysia
Located In	: Kuala Lumpur, Malaysia

Brief Profile

Dr Nurul A.C. Lah was born in Kelantan, Malaysia. She studied Engineering at the University of Malaya, Malaysia where she successfully completed her degree in B.Eng (Hons) in Materials. As a scholar under tutorship scheme programme, she continued for another degree, in postgraduate studies at University of Malaya pursuing Master in Materials Science which was achieved in 2010. She received a scholarship from the government of Saudi Arabia and pursuing her DPhil study in Advanced Materials (Nanotechnology) in 2011 at Unversity of Oxford, United Kingdom. Her dissertation was successfully defended in February 2016 entitled "The Size-Induced Metal-Insulator Transition in Silver Particles". Mrs Che Lah was a Lecturer in Materials Engineering, teaching materials science, materials engineering and mechanical engineering at the undergraduate level at the Faculty of Mechanical Engineering, Universiti Malaysia Pahang, Pahang, Malaysia. Mrs Che Lah also has been part of the UMP Automotive Engineering Researh Group (AERG) team for one and half year since February 2016, particularly in the areas of metal nanoparticles synthesis, advanced fundamental understanding of nano world and associate development of advanced technologies as well as in analytical techniques. Currently, Mrs Che Lah is a Lecturer at Faculty of Manufacturing Engineering at UMP teaching materials engineering courses. She is a member of several professional bodies such as Board of Engineers Malaysia and Institute of Materials Malaysia. Her involvement in her own research after graduating from the University of Oxford February 2016 had just begun.

Working Experiences / Appointment

 August 2017 ~ present 	Lecturer, Faculty of Manufacturing Engineering (FKP), Universiti Malaysia Pahang,
	Pahang, Malaysia
2. November 2016 ~ July 2017	Lecturer, Faculty of Mechanical Engineering (FKM), University Malaysia Pahang,
	Pahang, Malaysia
3. Feb 2012 ~ November 2016	Fellowship Staff, Faculty of Mechanical Engineering (FKM), University Malaysia
	Pahang, Pahang, Malaysia
4. Aug 2008 ~ July 2011	Tutor, Department of Mechanical Engineering, University of Malaya, Kuala
0	Lumpur, Malaysia

Expert Area

Nanotechnology, Materials Science, Advance Material, Smart Materials, Nanomedicine, Production Technology, and Nano device Fabrication

Research Area / Research Interest

Nanotechnology, Advance Material Science, Nanoscience, Smart Material, Nanomedicine and Nano device Fabrication

Professional Qualification / Membership / Affiliation / Experience

A) Editorial Board/ Conference Reviewer:

- 1. Editorial Board, Journal of Nanoscience and Quantum Physics (JNSQP), Chennai, India (Since July 2016 until present).
- 2. Advanced Materials Conference, AMC SIRIM 2016, Langkawi Malaysia
- 3. Scientific Committee, The International Conference on Nanomaterials, Function and Nanocomposite Materials (ICNFCM 2017), Hong Kong, China

B) Membership of Professional Body

- 1. Graduate Engineer, Board of Engineer, Malaysia (BEM) GE 69744 A
- 2. Profesional Member, Institute of Materials Malaysia (IMM) M 07509

List of Publications

A) International Journal & Book

- 1. MRR RIM Asri, WSW Harun, M Samykano, NAC Lah, SAC Ghani, F Tarlochan (2017). Corrosion and surface modification on biocompatible metals: A Review, Materials Engineering and Science: C, 77, 1261-1274 (2017).
- Lah, N.A.C., Samykano, M., Zubir, M.N.M (2017). Engineered Nanomaterial in Electronic and Electrical Industries. In Hussain, C.M. (Ed) Handbook of Nanomaterials for Industrial Applications. Elsevier - Accepted
- Leo, B.F., Lah, N.A.C., Samykano, M. (2017). Carbon Nanotube for Water Disinfection. In Daas, R. (Ed) Carbon Nanotube for Clean Water. Switzerland: Springer - Accepted
- Asri, R.I.M., Harun, W.S.W., Samykano, M., Lah, N.A.C., Ghani, S.A.C., Tarlochan, F., Raza, M.R., Corrosion and Surface Modification on Biocompatible Metals: A Review, *Materials Science & Engineering C* (2017) -Accepted
- 5. Lah, N.A.C., Samykano, M., Trigueros, S., Nanoscale Metal Particles as Nanocarriers in Targeted Drug Delivery System, *Journal of Nanomedicine Research*, 4, 00086 (2016). DOI: 10.15406/jnmr.2016.04.00086.
- Singho, N.D., Johan, M.R., Lah, N.A.C., Temperature Dependent Properties of Silver Poly (Methyl Methacrylate) Nanocomposite Synthesized by *In-Situ* Technique, *Nanoscale Research Letter*, 9, 1-6 (2014)
- Singho, N.D., Johan, M.R., Lah, N.A.C., Ahmad, R., Enhancement of the Refractive Index of Silver Nanoparticles in Poly (Methyl Methacrylate), International Journal of Research in Engineering and Technology, 1, 231 – 234 (2012)
- Singho, N.D., Johan, M.R., Lah, N.A.C., Ahmad, R., FTIR Study on Silver Poly (Methyl Methacrylate) Nanocomposite via In-Situ Polymerization Technique, International Journal of Electrochemical Science, 7, 5598 – 5603 (2012).
- Lah, N.A.C., Johan, M.R., Facile Shape Control Synthesis and Optical Properties of Silver Nanoparticles Stabilized by DAXAD 19 Surfactant, *Applied Surface Science*, 257, 7494 – 7500 (2011)
- 10. Lah, N.A.C., Johan, M.R., Optical and Thermodynamic Studies of Silver Nanoparticles Stabilized by Daxad 19 Surfactant, *International Journal of Materials Research*, 102, 340- 347 (2011)
- **B)** International and National Conference Papers

- 1. **Proceeding** in the 3rd International Conference on Bioinspired and Biobased Chemistry and Materials (15-17 October 2014) entitled 'Microwave Absorption and The Size-Induced Metal-Insulator Transition in Individual Colloidal Silver Particles' in Nice, France: page 156.
- 2. **Proceeding** in 2nd International Conference on Science and Technology, ICSTIE 2008 (12-13 December 2008) entitled 'Synthesis and characterization of silver nanoparticles in polyethylene glycol (PEG)' : page 982.
- 3. **Proceeding** in 2nd AUN/SEED- Net Regional Conference on Materials Engineering 2009 (19-20 November 2009) entitled 'Synthesis and UV-Vis Spectroscopic Study of Silver Nanoparticles Stabilized by Daxad 19' : page 12.
- Proceeding in International Conference on Nanotechnology Research and Commercialization, ICONT 2009 (14-17 December 2009) entitled ' Optical Studies on Gibbs Free Energy of Silver Nanoparticles stabilized by Daxad 19': page 45

C) Conference and Meeting Activities

- 1. **Participant** in *Pfizer Symposium*, University of Oxford, Oxford, United Kingdom (30th October 2014)
- 2. **Oral Presenter** in 2nd International Conference on Bioinspired and Biobased Chemistry and Materials, Nice, France (15th 17th October 2014)
- 3. **Participant** in *Prof. Dieter Fenske (MPLS Visiting Professor of Inorganic Chemistry) 'Nanosized Transition Metal Clusters. Synthesis, Structures and Properties'*, University of Oxford, Oxford, United Kingdom (8th August 2014)
- Poster Presenter in The 1st Scientific Symposium of the Islamic Development Bank Scholars Association UK, University of Cambridge, United Kingdom (22nd May 2014)
- 5. **Participant** in *Royal Society Discussion Meeting, 'The New Chemistry of the Elements'*, Royal Society London, United Kingdom (12th 13th May 2014)
- 6. **Oral Presenter** in *One-Day Meeting On A Metal and Metal-Containing Cluster*, University of Oxford, Oxford, United Kingdom (1st April 2014)
- 7. **Oral Presenter** in *Inorganic Chemistry Graduate Symposium 2014*, University of Oxford, Oxford, United Kingdom (25th -27th March 2014)
- Poster Presenter in 3rd KACST-OXFORD Petrochemical Forum 'New, Disruptive Science and Technologies for the Modern Petrochemical Industry', Wadham College, University of Oxford, Oxford, United Kingdom (12th -15th August 2013)

List of Research / Project

- 1. Synthesis of Silver Nanowires Hybrid Thin Film For Advanced Automotive Application as Project Leader, UMP Internal Research Grant RDU 1703152 (2017).
- 2. Synthesis, Characterisation and Device Integration Application of Silver Nanowires, as Project Leader. UMP Internal Research Grant RDU161117 (2016).
- 3. Investigation on Performance and Emission of Biodiesel/methanol/water blends, as Project Member. UMP Internal Research Grant RDU1603100 (2016).

Personal Strength

- 1. Creative and innovative
- 2. Strong research abilities and persistence
- 3. Dynamic team player
- 4. Sense of responsibility
- 5. Highly inquisitive
- 6. Excellent skills in communication and collaboration

Referees

- 1. Prof. Peter Edwards FRS ML
 - Head of Inorganic Chemistry Department Inorganic Chemistry Department University of Oxford South Parks Road OX1 3QR Oxfordshire United Kingdom

Email: <u>peter.edwards@chem.ox.ac.uk</u> Tel: +44 01865 272646 Fax: +44 01865 272656

2. Prof. Mohd Rafie bin Johan

Head of Nano Engineering Research Cluster Mechanical Engineering Department Faculty of Engineering University of Malaya 50603 Kuala Lumpur Malaysia Email: <u>mrafiej@um.edu.my</u> Tel: +06 0307967520

3. Prof. Dr Zahari B Taha

Professor Faculty of Manufacturing Engineering Universiti Malaysia Pahang 26600 Pekan, Pahang, Malaysia

Email: zaharitaha@ump.edu.my Tel: +609 424 6358