

## Zuraida Khusaimi (Ph.D)

Scopus Author ID: 26633102100 (H index- 14)  
<https://uitm.pure.elsevier.com/en/persons/zuraida-khusaimi>



### Present Designation

Senior lecturer

Faculty of Applied Sciences, Universiti Teknologi MARA (UiTM), 40450 Shah Alam, Selangor, Malaysia (Tel No: +603-5543 5795)

&

Researcher

NANO-SciTech Centre, Institute of Science, Universiti Teknologi MARA (UiTM), 40450 Shah Alam, Selangor, Malaysia (Tel No: +603-5544 4412)

**E-mail:** [zurai142@salam.uitm.edu.my](mailto:zurai142@salam.uitm.edu.my) or [zuraidakhusaimi@gmail.com](mailto:zuraidakhusaimi@gmail.com)

H/P No : +6016-21 28 514

Gender : Female

Date of Birth : 9 March 1968

Citizenship : Malaysian

### EDUCATIONAL BACKGROUND

2012: Doctorate Degree (PhD)

Universiti Teknologi MARA (UiTM), Shah Alam, Selangor, Malaysia

Thesis entitled – Synthesis and Characterisation of Low-dimensional Zinc Oxide Nanostructures by Solution-Immersion and Mist-Atomisation

2001: Master of Science (MSc.) (Analytical Chemistry)

Universiti Malaya, Kuala Lumpur, Malaysia.

1992: Bachelor of Science (Hons)

University of Aberdeen, Scotland, United Kingdom.

## AWARDS / PRIZES / ACHIEVEMENTS

1. **Bronze medal** - Invention, Innovation and Design Exhibition 2018 (IIDEX 2018), UiTM, Sept 2018 - *"Synthesis and Characterization of Metal Doped Nano Zinc Oxide on Titanium Dioxide Seeded Substrate – Potential Application as UV Sensor"*.
2. **Outstanding Contribution in Reviewing (2017)** – The Editors of Materials Science and Engineering B, Elsevier, Amsterdam, The Netherlands.
3. **Gold medal** - Invention, Innovation and Design Exhibition 2017 (IIDEX 2017), UiTM, Sept 2017 - *"Ultra-violet Sensor Using Thin Interconnected TiO<sub>2</sub>:ZnO Nanorods Dense Packed Thin Film"*.
4. **Gold medal** - Scientific Research Invention & Innovation Competition 2017 (SRIIC 2017) FSG, UiTM, Aug 2017 – *"The Novelty of Waste Cooking Oil as Green Carbon Source for Graphene Synthesis and Its Transparency Ability"*.
5. **Silver medal** - Invention, Innovation and Design Exhibition 2014 (IIDEX 2014), UiTM, April 2014 – *"Study on The Effect of PMMA-Seeded Substrate on ZnO Nanostructures"*.
6. **Service Excellence Awards 2015** – Institute of Science, UiTM
7. **MyRA Score Contributor 2015 (Q1 Category)** – Faculty of Applied Sciences, UiTM
8. **Silver medal** - Malaysia Technology Expo 2011, Feb 2011, **Gold medal** for participation in 7<sup>th</sup>. IID 2010 (Invention, Innovation and Design), UiTM, Jan 2010 – *"A Novel Catalytic Growth of Zinc Oxide Nanorods"*.
9. **Silver medal** - International Trade Fair –Ideas-Inventions-New Products- Nuremberg, Germany (IENA 2009) Nov. 2009, **Silver medal** for participation in Pecipta 2009, **Silver medal** for participation in 6th IID 2009 (Invention, Innovation, Design), UiTM Jan. 2009 - *"Micro-roses amidst zinc oxide nano-rods"*.
10. **Bronze medal** - International in the Belgian International Trade Fair For Technological Innovation (Brussels Eureka) Oct. 2009, **Silver medal** for participation in Pecipta 2009, **Silver medal** - 6th IID 2009 (Invention, Innovation, Design), UiTM - *"Nano-Art and Design"*,
11. **Best Oral Presentation** at Intl. Conf. of Molecular Chemistry, Univ. Malaya, Nov. 2008 for paper entitled "Photoluminescence and Structural Properties of Gold-assisted Zinc Oxide Nanorods".
12. **Bronze medal** - 5th IID 2008 (Invention, Innovation, Design), UiTM - *"Preparation of Nanostructured Zinc Oxide by Sol-gel Spray Pyrolysis: A Novel Method"*.

## RESEARCH AND PUBLICATION

### AREA OF INTEREST

Nanomaterial, nanoscience & nanotechnology

### **On-going grants**

- LESTARI (Geran Penyelidikan Lestari) – Preparation of Hybrid CuO/TiO<sub>2</sub> Photocatalyst Responsive Towards Visible Light (Co-Researcher) 01-10-2017 to 30-09-2019 – 600-IRMI/Dana KCM 5/3/LESTARI (192/2017) – RM 20,000.00
- GIP (Geran Inisiatif Penyelidikan) – The Synthesis of Graphene From Waste Engine Oil as a Renewable Natural Carbon Source to be Incorporated into Graphene/ZnO Nanocomposite for Sensor Application (Principal Researcher) 01-09-2018 to 31-07-2019 – 600-IRMI/GIP 5/3 (062/2018) – RM 25,000.00

### **Completed grants**

1. iRAGS (Research Acculturation Grant Scheme) – The Study of Structural and Electrical Properties of ZnO Nanostructures on Porous Silicon as a Gas Sensor (Project Leader) 01-12-2015 to 30-5-2018 – 600-RMI/RAGS 5/3 (20/2015) – RM 20,000.00
2. GIP (Geran Inisiatif Penyelidikan) – Growth of ZnO Nanostructures on TiO<sub>2</sub> Seed Layer for Potential Application of UV Sensor (Principal Researcher) 01-09-2016 to 31-03-2018 – 600-IRMI/GIP 5/3 (0023/2016) – RM 30,000.00
3. RAGS (Research Acculturation Grant Scheme) – Synthesis of Graphene from Cooking Oil (Co-Researcher) 01-12-2015 to 30-11-2017 – 600-RMI/RAGS 5/3 (40/2015) – RM 43,000.00
4. FRGS (Fundamental Research Grant Scheme) – Improvement on Photoelectrochemical Properties of High Aspect Ratio Titania Nanotubes (Co-Researcher) 01-07-2014 to 30-06-2016 600 - RMI/FRGS 5/3 (1/2014) – RM 119,500.00
5. Toray Science Foundation (Japan) – Fabrication of Copper Loaded Titania Nanotubes for Solar Energy Conversion (Co-Researcher) –01-12-2014 to 30-11-2015 – RM 20,000
6. FRGS (Fundamental Research Grant Scheme) - Sensing Sensitivity of Zinc Oxide Nanoparticles Thin Films (Co-Researcher)- 600-RMI/FRGS 5/3 (18/2012) 15-04-2012 to 14-04-2014 - RM 60,000.00
7. RIF (Research Intensif Faculty Fund) – Temperature Dependent Photoluminescence of ZnO Nanorods on Durable Polymer-based Template Prepared by Solution-Immersion Method (Principal Researcher) 01-11-2012 to 31-10-2014 – 600-RMI/DANA 5/3/RIF (666/2012) - RM 32,000.00
8. DanaKep (Dana Kecemerlangan Pelajar)- Utilisation of Urea as a Stabiliser in the Preparation of Nanostructured ZnO using Immersion Method (Principal Researcher) - Oct 2011-Sept 2013 - 600-RMI/ST/DANA 5/3/DST (406/2011) 01-10-2011 to 30-09-2013 - RM 8,000.00
9. DanaKep (Dana Kecemerlangan Pelajar)- Synthesis and Characterisation of Nanostructured Zinc Oxide by Sol-gel Mister Atomisation (Principal Researcher) - (2008-2011) - RM 15,000.
10. Dana UiTM (Research Management Institute (RMI), UiTM, formerly known as Institute of Research, Development and Commercialization (IRDC), UiTM) – RM 10,000.00

(Jun 2005 – Dec 2007) -Synthesis and Optical Characterisation of nano-crystalline Cadmium Selenide, (Principal Researcher)

(Jan 2005 – Aug 2007) - Analysis of Heavy Metals in Water and Sediment of Renggam River, Shah Alam (Co-Researcher)

(2004) - Permasalahan Pelajar 'Non-Residen' UiTM (Co-Researcher)

(2003) - Synthesis and Fourier Transform Infrared Spectroscopy Studies of C-O Bonds in Nickel(II) Benzoate Derivatives Substituted with electron-attracting Groups, (Principal Researcher)

## RESEARCH PATENT

1. "A Method for Synthesizing Nanostructures", (2010) (Patent No. PI 2010003099)  
Zuraida Khusaimi, Suhaidah Amizam, Mohamad Hafiz Mamat, Saifollah Abdullah and Mohamad Rusop.
2. "A Method for Preparing Aligned Zinc Oxide (ZnO) Nanorods on Substrate", (2010) (Patent No. UI 2010004836)  
Mohamad Hafiz Mamat, Zuraida Khusaimi, Musa Mohamed Zahidi and Mohamad Rusop.

## POSTGRADUATE SUPERVISION

### ON-GOING POSTGRADUATE (RESEARCH) SUPERVISION

	<b>Students Name</b>	<b>Institutions</b>	<b>Level</b>	<b>Year enrolled</b>	<b>Role</b>
1	Nur Amierah binti Mohd. Asib	UiTM	PhD	2012	SV
2	Muhammad Aslam bin Mahmud	UiTM	PhD	2014	Co-SV
3	Wan Rosmaria binti Wan Ahmad	UiTM	PhD	2015	Co-SV
4	Nurul Huda Binti Ismail	UiTM	PhD	2015	Co-SV
5	Nurul Afaah binti Abdullah	UiTM	PhD	2017	SV
6	Siti Zulaikha binti Umbaidillah	UiTM	MSc	2017	SV
7	Nur Munirah Binti Safiy	UiTM	MSc	2016	Co-SV

### COMPLETED POSTGRADUATE (RESEARCH) SUPERVISION

	<b>Students Name</b>	<b>Institutions</b>	<b>Level</b>	<b>Year</b>	<b>Role</b>
1.	Azlinda binti Abdul Aziz	UiTM	MSc.	2012-2016	Co-SV
2.	Nurul Afaah binti Abdullah	UiTM	MSc.	2012-2017	SV
3.	Noor Aadila binti Abdul Aziz	UiTM	MSc.	2012-2017	SV
4.	Marmeezee bin Mohd. Yusof	UiTM	PhD	2015 -2018	Co-SV
5.	Ruziana binti Mohamed	UiTM	PhD	2013 - 2018	Co-SV

## PUBLICATIONS - Academic Journals (*indexed in IEEE/ISI/SCOPUS*)

- 1. "Enhancing the performance of self-powered ultraviolet photosensor using rapid aqueous chemical-grown aluminum-doped titanium oxide nanorod arrays as electron transport layer"**  
M.M. Yusoff, M.H. Mamat, A.S. Ismail, M.F. Malek, Z. Khusaimi, A.B. Suriani, A. Mohamed, M.K. Ahmad, M. Rusop.  
*Thin Solid Films* 655 (2018) 1 - 12.
- 2. "Structural Studies of ZnO Nanostructures on Porous Silicon: Effect of Post-Annealing Temperature"**  
Kevin Alvin Eswar, Mohd. Husairi Fadzillah Suhaimi, Muliyadi Guliling, Zuraida Khusaimi, Mohamad Rusop and Saifollah Abdullah.  
*International Journal of Engineering & Technology (IJET)*, 7(3.11) (2018) 48 – 51.
- 3. "Hierarchically assembled tin-doped zinc oxide nanorods using low-temperature immersion route for low temperature ethanol sensing"**  
R. Mohamed, M. H. Mamat, A. S. Ismail, M. F. Malek, A. S. Zoolfakar, Z. Khusaimi, A. B. Suriani, A. Mohamed, M. K. Ahmad and M. Rusop.  
*Journal of Materials Science: Materials in Electronics*, Vol. 28, Issue 21(2017) pp 16292-16305 (*Q1 Impact factor 1.82*)
- 4. "The Influence of Growth Duration Process on Morphology and Electrical Properties of SnO<sub>2</sub> Nanostructured Films"**  
R Mohamed, K Md Salleh, MF Malek, MH Mamat, Y Norihan, Z Khusaimi and M Rusop.  
*Solid State Phenomena*, 268 (2017), pg. 274- 278 (*Q3, IF 0.254*)
- 5. "Morphological, Structural and Optical Properties of Mg Doped ZnO Nanostructured Growth by Aqueous Solution Method"**  
Mohamad, R. Khusaimi, Z. Abdullah, N.A., Aziz, A, Mamat, M.H., Rusop, M.  
*Material Science Forum* 846 (2016) pp 454-458 (*ISI 2016; IF 0.29, Q3*)
- 6. "Sol Gel Synthesized Zin Oxide Nanorods on Single and Co-doped: Morphological, Optical and Electrical Properties"**  
Mohamed, R, Rouhi, J., Malek, M.F., Ismail, A.S., Alrokayan, S.A.H., Khusaimi, Z., Mamat, M.H., Mahmood, M.R.  
*International Journal of Electrochemical Science*, 11 (2016) pp. 2197-2204 (*ISI 2016; IF 1.692, Q3*)
- 7. "Electrochemical Synthesis of Ordered Titania Nanotubes in Mixture of Ethylene Glycol and Glycerol Electrolyte"**  
Chin, L.Y., Zainal, Z., Khusaimi, Z., Ismail, S.S.  
*Malaysian Journal of Analytical Sciences*, 20 (2) (2016), pp 373-381 (*Scopus 2015; IF 0.27, Q4*)
- 8. "Surfactant-free seed-mediated large-scale synthesis of mesoporous TiO<sub>2</sub> nanowires"**  
M.N. Asiah, M.H.Mamat, Z.Khusaimi, S.Abdullah, M.Rusop, Ahsanulhaq Qurashid  
*Ceramics International* 41(2015) pp 4260–4266 (*ISI 2016; IF 2.758, Q1*)
- 9. "Morphological and Optical Properties of Different Mg Percentage of ZnO/Mg Thin Films Prepared by Sol-gel Spin-coating and Immersion Method"**  
A. Aadila, R. Mohamed, A. N. Afaah, N. A. M. Asib, M. Rusop and Z. Khusaimi.  
*Advanced Material Research*, Vol 1107 (2015) pp 637-642. (*Scopus 2015 SJR 0.115, Q4*)
- 10. "Progress in ZnO Nanostructure for Sensing Based Using Low Temperature Method"**  
R. Mohamed, Z. Khusaimi, A. N. Afaah, A. Aadila, A.K. Shafura, K. A. Eswar, H. Mamat, M. Rusop  
*Advanced Material Research*, Vol 1109 (2015) pp 415-418. (*Scopus 2015 SJR 0.115, Q4*)
- 11. "Post-annealing temperature effect on ZnO nanostructures growth on porous silicon"**  
Kevin Alvin Eswar, Husairi Fadzilah Shuhaimi, Muzammil Mat Akhir, Nurul Afaah Abdullah, Noor Aadilla Abdul Aziz, Nur Amierah Mohd Asib, Ruziana Mohamed, Azlinda Aziz, Zuraida Khusaimi, Mohamad Rusop, Saifollah Abdullah.

*Advanced Material Research*, Vol 1109 (2015) pp 434-438.

(Scopus 2015 SJR 0.115, Q4)

12. **"Influence of Annealing on the Morphological and Optical Properties of Mg Doped ZnO Thin Film"**  
R. Mohamed, Z. Khusaimi, A. N. Afaah, A. Aadila, N. A. M. Asib, A. K. Shafura, K. A. Eswar, M.H. Mamat, Salman A. H. Alrokayan, Haseeb A. Khan, M. Rusop  
*Advanced Material Research*, Vol 1109 (2015) pp 539-543.  
(Scopus 2015 SJR 0.115, Q4)
13. **"The Effect of Au-seeded Thickness to the Morphology of ZnO Nanostructures Obtained by Mist-atomization on Heated Substrates"**  
A.N. Afaah, N.A.M. Asib, A. Aadila, M. Rusop, R. Mohamed, Z. Khusaimi  
*Advanced Material Research*, Vol 1109 (2015) pp 582-586.  
(Scopus 2015 SJR 0.115, Q4)
14. **"Optical Studies on the Effect of Different Layers of TiO<sub>2</sub> seeded-Template to the Growth of Nanostructured ZnO"**  
N.A.M. Asib, A. Aadila, A.N. Afaah, M. Rusop, Z. Khusaimi  
*Advanced Material Research*, Vol 1109 (2015) pp 587-592.  
(Scopus 2015 SJR 0.115, Q4)
15. **"ZnO Nanostructures Obtained By Mist-Atomization Method Growth on Different Au-Seeded Substrates Temperature"**  
A.N. Afaah, N.A.M. Asib, A. Aadila, M. Rusop, R. Mohamed, Z. Khusaimi.  
*Advanced Material Research*, Vol 1109 (2015) pp 603-607.  
(Scopus 2015 SJR 0.115, Q4)
16. **"Surface Morphology Studies on Different Layers of PMMA Spin Coated onto Substrate Prepared by Sol-gel Spin-coating Method"**  
A. Aadila, A. N. Afaah, N. A. M. Asib, R. Mohamed, M. Rusop and Z. Khusaimi.  
*Advanced Material Research*, Vol 1109 (2015) pp 608-612.  
(Scopus 2015 SJR 0.115, Q4)
17. **"UV-Vis and Raman Characterization Multilayer of PMMA Films Spin Coated onto Substrate by Sol-gel Spin-coating Method"**  
A. Aadila, N. A. M. Asib, A. N. Afaah, R. Mohamed, M. Rusop and Z. Khusaimi.  
*Advanced Material Research*, Vol 1109 (2015) pp 613-616.  
(Scopus 2015 SJR 0.115, Q4)
18. **"Optical Properties and Raman Scattering Investigation of Ag Doped ZnO Thin Film Prepared by Two-Step Solution-Based Deposition Method"**  
A.N. Afaah, N.A.M. Asib, A. Aadila, R. Mohamed, K. A. Eswar, M. Rusop, Z. Khusaimi  
*Applied Mechanics and Materials*, Vols. 773-774 (2015) pp 739-743.
19. **"Seeded Porous Silicon Preparation as a Substrate in the Growth of ZnO Nanostructures"**  
Kevin Alvin Eswar, Ajis Lepit, Rosfayanti Rasmidi, Husairi Fadzilah Shuhaimi, Nurul Afaah Abdullah, Noor Aadilla Abdul Aziz, Nur Amierah Mohd Asib, Azlinda Aziz, Zuraida Khusaimi, Salman A.H. Alrokayan, Haseeb A. Khan, Mohamad Rusop, Saifollah Abdullah  
*Applied Mechanics and Materials*, Vols. 773-774 (2015) pp 626-631
20. **"Sonicated Sol-Gel Preparation of Nanoparticulate ZnO Thin Films with Various Deposition Speeds: The Highly Preferred (002) axis Orientation Enhances the Final Properties"**  
M.F. Malek, M.H. Mamat, Z. Khusaimi, M.Z. Sahdan, M.Z. Musa, AR Zainun, AB Suriani, N.D. Md Sin, SB Abd Hamid, M. Rusop.  
*Journal of Alloys and Compounds*, Vol. 582 (2014) pp. 12-21.
21. **"Fabrication of MEH-PPV/Al:ZnO Nanorod Arrays Based Ordered Bulk Heterojunction Hybrid Solar Cells"**  
M.F. Malek, M.Z. Sahdan, M.H. Mamat, M.Z. Musa, Z. Khusaimi, S.S. Husairi, N.D. Md Sin, M. Rusop.  
*Applied Surface Science*, Vol. 275 (2013) pp. 75-83.
22. **"Effect of Annealing Environments on the Solution-Grown, Aligned Aluminium-Doped Zinc Oxide Nanorod-Array-Based Ultraviolet Photoconductive Sensor"**

Mohamad Hafiz Mamat, Mohd Izzudin Che Khalin, Nik Noor Hafizah Nik Mohammad, Zuraida Khusaimi, Nor Diyana Md Sin, Shafinaz Sobihana Shariffudin, Musa Mohamed Zahidi, Mohamad Rusop.

*Journal of Nanomaterials*, Vol. 2012, Article ID 189279, 15 pages, doi: 10.1155/2012/189279.

23. **“Effect of Oxygen Flow Rate on the Properties of Nanocolumnar ZnO Thin Films Prepared Using Radio Frequency Magnetron Sputtering System for Ultraviolet Sensor Applications”.**  
Mohamad Hafiz Mamat, Wan Syafinaz Wan Anuar, Musa Mohamed Zahidi, Zuraida Khusaimi, Mohd. Firdaus Malek, Salina Muhammad, Diyana Md Sin, Mohamad Rusop.  
*Advanced Material Research*, Vol. 364 (2012) pp. 1-6.
24. **“Annealing Effect on the Surface Morphology and Photoluminescence Property of ZnO Hexagonal Rods by Immersion Method”.**  
A.Azlinda, Z. Khusaimi, F.S. Husairi, I. Nasruddin, S. Abdullah and M. Rusop.  
*Advanced Material Research*, Vol. 576 (2012) pp. 353-356.
25. **“ZnO Nanoparticles on Si, Si/Au, and Si/Au/ZnO Substrates by Mist-Atomisation.**  
Z. Khusaimi, M. H. Mamat, N. Abdullah and M. Rusop.  
*Journal of Nanomaterials*, Vol. 2012, Article ID 872856. 8 pages, doi: 10.1155/2012/872856 (Impact factor: 1.675)
26. **“Optical Properties of Nanostructured Zinc Oxides Deposited on Silicon Substrates”**  
Mohamad Hafiz Mamat, Zuraida Khusaimi, Mohamad Rusop.  
*Defect and Diffusion Forum*, Vol. 312-315 (2011) 1132-1136 (ISI, Impact factor 0.5)
27. **“Growth of Multi-Shaped Zinc Oxide Nanostructures Using C-Axis Oriented Zinc Oxide Thin Film as a Seeded Catalyst via Hydrothermal Aqueous Chemical Growth Method”**  
Mohamad Hafiz Mamat, Zuraida Khusaimi, Mohamad Rusop.  
*Defect and Diffusion Forum*, Vols. 312-315 (2011) 1126-1131 (ISI, Impact factor 0.5)
28. **“Controlled Growth of Zinc Oxide Nanorods by Aqueous-solution Method”**  
Z.Khusaimi, S. Amizam, M.H. Mamat, M.Z. Sahdan, M.K. Ahmad, N. Abdullah, and M. Rusop.  
*Synthesis and Reactivity in Inorganic, Metal-organic, and Nano-Metal Chemistry*, 40: 3, (2010) 190 – 194.
29. **“Novel synthesis of aligned Zinc oxide nanorods on a glass substrate by sonicated sol-gel immersion”**  
M.H. Mamat, Z. Khusaimi, M.Z. Musa, M.Z. Sahdan, M. Rusop  
*Materials Letters* 64 (2010) 1211–1214
30. **“Photoluminescence and structural properties of Gold-Assisted Zinc Oxide Nanorods”**  
Z. Khusaimi, S. Amizam, H. A. Rafaie, M. H. Mamat, N. Abdullah and M. Rusop.  
*Malaysian Journal of Science* 28 (Special Edition): 197 – 201 (2009)

#### **PUBLICATIONS – Conference Proceedings**

1. **“The Optical Properties of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanostructures Synthesized with Different Immersion Time.**  
W. R. W. Ahmad, M. H. Mamat, A. S. Zoolfakar, Z. Khusaimi, M. M. Yusof, A. s. Ismail, S. A. Saidi and M. Rusop.  
AIP Conference Proceedings 1963, 020039 (2018)
2. **“Influence of Deposition Time on the Surface Morphology and Photochemical Properties of Copper Doped Titania Nanotubes Prepared by Electrodeposition”**  
MA Mahmud, LY Chin, Z Khusaimi and Z Zainal.  
AIP Conference Proceedings 1963, 020030 (2018)
3. **“The Fabrication of Nitrogen Detector Porous Silicon Nanostructures”**  
F.S. Husairi, N. Othman, K.A. Eswar, Muliyadi Guliling, Z. Khusaimi, M. Rusop and S. Abdullah.

- AIP Conference Proceedings 1963, 020075 (2018)
4. "Porosity and Thickness Effect of Porous Silicon Layer on Photoluminescence Spectra"  
F.S. Husairi, N. Othman, K.A. Eswar, Mulyadi Guliling, Z. Khusaimi, M. Rusop and S. Abdullah.  
AIP Conference Proceedings 1963, 020080 (2018)
  5. "The Structural Properties of Flower-like ZnO Nanostructures on Porous Silicon"  
Kevin Alvin Eswar, Mohd Husairi Fadzillah Suhaimi, Mulyadi Guliling, Maryam Mohamad, Zuraida Khusaimi, M. Rusop, and Saifollah Abdullah.  
AIP Conference Proceedings 1963, 020032 (2018)
  6. "Synthesis of p-type nickel oxide nanosheets on n-type titanium dioxide nanorod arrays for p-n heterojunction-based UV photosensor"  
M. M. Yusoff, M. H. Mamat, M. F. Malek, M. A. R. Abdullah, A. S. Ismail, S. A. Saidi, R. Mohamed, A. B. Suriani, Z. Khusaimi, and M. Rusop.  
AIP Conference Proceedings 1963, 020016 (2018)
  7. "Effect of the polymeric coating thickness on the photocurrent performance of titanium dioxide nanorod arrays-polyaniline composite-based UV photosensor"  
M. M. Yusoff, M. H. Mamat, M. F. Malek, , N. Othman, A. S. Ismail, S. A. Saidi, R. Mohamed, A. B. Suriani, Z. Khusaimi, and M. Rusop.  
AIP Conference Proceedings 1963, 020041 (2018)
  8. "Preparation of TNAs/NiO p-n heterojunction and their applications in UV photosensor"  
M. M. Yusoff, M. H. Mamat, M. F. Malek, M. A. R. Abdullah, A. S. Ismail, S. A. Saidi, R. Mohamed, A. B. Suriani, Z. Khusaimi, and M. Rusop.  
AIP Conference Proceedings 1963, 020070 (2018)
  9. "Sn-doped TiO<sub>2</sub> nanorod arrays produced by facile one step aqueous chemical route: Structural characterization"  
M. M. Yusoff, M. H. Mamat, M. F. Malek, M. A. R. Abdullah, A. S. Ismail, S. A. Saidi, R. Mohamed, A. B. Suriani, Z. Khusaimi, and M. Rusop.  
AIP Conference Proceedings 1963, 020077 (2018)
  10. "Effect of Different Metal Contact Distance and Light on Electrical Properties of Calcium Carbonate Thin Film"  
N.H. Sulimai, R.A. Rani, M. H. Mamat, M.F. Malek, A. S. Zoofakar, Z Khusaimi, S Abdullah, Salman Alrokayan, Haseeb Khan, M Rusop.  
2018 IEEE International Conference on Semiconductor Electronics (ICSE), 978-1-5386-5283-1/18 (2018 )
  11. "Synthesis of Graphene Layer at Different Waste Cooking Palm Oil Temperatures"  
M. Robaiah, M. Rusop, S. Abdullah, Z. Khusaimi, H. Azhan and NA Asli.  
AIP Conference Proceedings 1877 (1), 030008 (2017) ISSN 1551-7616 Web
  12. "One step precipitation of CaCO<sub>3</sub> nanoparticles assisted by drying and hydrothermal method"  
NH Sulimai, RA Rani, Z Khusaimi, S Abdullah, MJ Salifairus, M Rusop, Salman Alrokayan, Haseeb Khan.  
Micro and Nanoelectronics (RSM), IEEE Regional Symposium, pg. 187 – 190 (2017)
  13. "A review on hematite  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> focusing on nanostructures, synthesis methods and applications"  
W. R. W. Ahmad, M. H. Mamat, A. S. Zoofakar, Z. Khusaimi, M. Rusop  
Proceedings – 14th. IEEE Student Conference on Research and Development: Advancing Technology for Humanity, SCOREd (2016)
  14. "Effect of deposition speed on properties of zinc oxide nanoparticle decorated zinc oxide nanorod arrays"  
Saidi, S.A., Mamat, M.H., Ismail, A.s., Yusoff, M.M., Malek, M.F., Md. Sin, N.D., Zoofakar, A.S., Khusaimi, Z., Rusop, M.  
Proceedings – 14th. IEEE Student Conference on Research and Development: Advancing Technology for Humanity, SCOREd (2016)
  15. "Electrical Properties of Mg doped ZnO Nanostructure Annealed at Different Temperature"  
Mohamad. R, Ismail, A.S., Khusaimi, Z., Mamat, M.H., Rusop, M.  
International Conference on Nano-Electric Technology Devices and Materials 2015, IC-NET (2015) Vol. 1733, (2016) Article No. 020062



16. "Percentage of Different Aluminium Doping Influence to the Morphology and Optical Properties of ZnO Nanostructured Growth for Sensor Application"  
Mohamad. R, Ismail, A.S., Khusaimi, Z., Mamat, Alrokayan, S.A.H., M.H., Khan, H.A., Rusop, M. International Conference on Nano-Electric Technology Devices and Materials 2015, IC-NET (2015) Vol. 1733, (2016) Article No. 020061
17. "Effect of Copper Concentration on the Morphology and Structural Properties of Copper Loaded Titania Nanotubes Prepared by Electrodeposition"  
Muhammad Aslam Mahmud, Lim Ying Chin, Zuraida Khusaimi and Zulkarnain Zainal. International Science, Technology and Engineering Conference (ISTEC) 2016, ISBN/ISSN 978-967-14017-0-5
18. "Morphological and Optical Properties of Different Mg Percentage of ZnO/Mg Thin Films Prepared by Sol-gel Spin-coating and Immersion Method"  
A. Aadila, R. Mohamed, A. N. Afaah, N. A. M. Asib, M. Rusop and Z. Khusaimi. Advanced Material Research, Vol 1107 (2015) pp 637-642.
19. "Progress in ZnO Nanostructure for Sensing Based Using Low Temperature Method"  
R. Mohamed, Z. Khusaimi, A. N. Afaah, A. Aadila, A.K. Shafura, K. A. Eswar, H. Mamat, M. Rusop Advanced Material Research, Vol 1109 (2015) pp 415-418.
20. "Post-annealing temperature effect on ZnO nanostructures growth on porous silicon"  
Kevin Alvin Eswar, Husairi Fadzilah Shuhaimi, Muzammil Mat Akhir, Nurul Afaah Abdullah, Noor Aadilla Abdul Aziz, Nur Amierah Mohd Asib, Ruziana Mohamed, Azlinda Aziz, Zuraida Khusaimi, Mohamad Rusop, Saifollah Abdullah. Advanced Material Research, Vol 1109 (2015) pp 434-438.
21. "Influence of Annealing on the Morphological and Optical Properties of Mg Doped ZnO Thin Film"  
R. Mohamed, Z. Khusaimi, A. N. Afaah, A. Aadila, N. A. M. Asib, A. K. Shafura, K. A. Eswar, M.H. Mamat, Salman A. H. Alrokayan, Haseeb A. Khan, M. Rusop Advanced Material Research, Vol 1109 (2015) pp 539-543.
22. "The Effect of Au-seeded Thickness to the Morphology of ZnO Nanostructures Obtained by Mist-atomization on Heated Substrates"  
A.N. Afaah, N.A.M. Asib, A. Aadila, M. Rusop, R. Mohamed, Z. Khusaimi Advanced Material Research, Vol 1109 (2015) pp 582-586.
23. "Optical Studies on the Effect of Different Layers of TiO<sub>2</sub> seeded-Template to the Growth of Nanostructured ZnO"  
N.A.M. Asib, A. Aadila, A.N. Afaah, M. Rusop, Z. Khusaimi Advanced Material Research, Vol 1109 (2015) pp 587-592.
24. "ZnO Nanostructures Obtained By Mist-Atomization Method Growth on Different Au-Seeded Substrates Temperature"  
A.N. Afaah, N.A.M. Asib, A. Aadila, M. Rusop, R. Mohamed, Z. Khusaimi. Advanced Material Research, Vol 1109 (2015) pp 603-607.
25. "Surface Morphology Studies on Different Layers of PMMA Spin Coated onto Substrate Prepared by Sol-gel Spin-coating Method"  
A. Aadila, A. N. Afaah, N. A. M. Asib, R. Mohamed, M. Rusop and Z. Khusaimi. Advanced Material Research, Vol 1109 (2015) pp 608-612.
26. "UV-Vis and Raman Characterization Multilayer of PMMA Films Spin Coated onto Substrate by Sol-gel Spin-coating Method"  
A. Aadila, N. A. M. Asib, A. N. Afaah, R. Mohamed, M. Rusop and Z. Khusaimi. Advanced Material Research, Vol 1109 (2015) pp 613-616.
27. "Electrical and Optical Properties of Zinc Oxide Thin Films by Sol-Gel Dip-Coating Technique"  
Mohd Firdaus Bin Malek, Mohamad Hafiz Bin Mamat, Musa Bin Mohamed Zahidi, Zainizan Bin Sahdan, Zuraida Binti Khusaimi and Mohamad Rusop Bin Mahmood  
AIP Conf. Proc. 1341, 37 (2011); <http://dx.doi.org/10.1063/1.3586950>

28. "Ultra-violet Sensing Characteristic and Field Emission Properties of Vertically Aligned Aluminum Doped Zinc Oxide Nanorod Arrays"  
M. H. Mamat, Z. Khusaimi, M. F. Malek, M. Z. Musa and M. Rusop  
AIP Conf. Proc. 1341, 440 (2011); <http://dx.doi.org/10.1063/1.3587035>
29. "Palm Oil as the Carbon Source for the Synthesis of Carbon Nanotubes using Floating Catalyst—Chemical Vapour Deposition Method"  
S. A. M. Zobir, A. B. Suriani, Z. Khusaimi, H. Mamat, Z. Zainal, S. H. Sarijo and M. Rusop  
AIP Conf. Proc. 1328, 180 (2011); <http://dx.doi.org/10.1063/1.3573722>
30. "Electrical and Structural Properties of Aligned Aluminum-Doped Zinc Oxide Nanorod Arrays via a Novel Sonicated Sol-Gel Immersion"  
M. H. Mamat, Z. Khusaimi, M. Z. Musa, U. M. Noor, and M. Rusop  
Electro/Information Technology (EIT), ISSN 2154-0357 pg 1-5 (2011) IEEE
31. "Effects of Different Precursor's Concentration on the Properties of Zinc Oxide Thin Films"  
M. F. Malek, N. Zakaria, M. Z. Sahdan, M. H. Mamat, Z. Khusaimi and M. Rusop  
AIP Conf. Proc. 1250, 432 (2010); <http://dx.doi.org/10.1063/1.3469700>
32. "The Effects of Annealing Temperature on the Structural and Optical Properties of Nanostructured ZnO Nanorods Grown on Au Coated Si by Sol-gel Immerse Method"  
N. Baizura, Z. Khusaimi and M. Rusop  
AIP Conf. Proc. 1136, 700 (2009); <http://dx.doi.org/10.1063/1.3160238>
33. "Properties of Nanostructured Zinc Oxide by Hydro-Thermal Aqueous Chemical Growth Method"  
M. H. Mamat, M. Z. Sahdan, S. Amizam, H. A. Rafaie, Z. Khusaimi and M. Rusop  
AIP Conf. Proc. 1136, 586 (2009); <http://dx.doi.org/10.1063/1.3160212>
34. "Surface Morphology Study and Electrical Properties of Zinc Oxide Thin Films Deposited at Various Deposition Temperatures Using TCVD"  
H. A. Rafaie, S. Amizam, M. H. Mamat, Z. Khusaimi, M. Z. Sahdan and M. Rusop  
AIP Conf. Proc. 1136, 647 (2009); <http://dx.doi.org/10.1063/1.3160225>
35. "The Effect of Deposition Temperature on the Growth of ZnO Nanorods on Porous Silicon using Sol-gel Immersion Method"  
S. Amizam, M. H. Mamat, Z. Khusaimi, H. A. Rafaie, M. Z. Sahdan, S. Abdullah and M. Rusop  
AIP Conf. Proc. 1136, 676 (2009); <http://dx.doi.org/10.1063/1.3160232>
36. "Growth Pattern of Zinc Oxide Nanorods on Gold Coated Silicon Surfaces"  
Z. Khusaimi, S. Amizam, H. A. Rafaie, M. H. Mamat, M. Z. Sahdan, N. Abdullah and M. Rusop  
AIP Conf. Proc. 1136, 867 (2009); <http://dx.doi.org/10.1063/1.3160275>
37. "A Surface Morphology Study On The Effect Of Annealing Temperature To Nanostructured ZnO And Its Reaction Mechanism In Solution Method"  
Z. Khusaimi, S. Amizam, H. A. Rafaie, M. H. Mamat, N. Abdullah and M. Rusop  
AIP Conf. Proc. 1136, 790 (2009); <http://dx.doi.org/10.1063/1.3160258>
38. "Effect of Mg Dopant Percentage on the Photoluminescence Property of Nano-Structured ZnO Thin Films Deposited on Si Substrate"  
M. F. Malek, M. Alfah, Z. Khusaimi, M. H. Mamat, M. Z. Sahdan and M. Rusop  
AIP Conf. Proc. 1136, 616 (2009); <http://dx.doi.org/10.1063/1.3160218>
39. "Electrical and Photoluminescence Properties of Intrinsic Zinc Oxide Thin Films Prepared at Different Molar Concentrations"  
M. H. Mamat, M. Z. Sahdan, S. Amizam, H. A. Rafaie, Z. Khusaimi and M. Rusop  
AIP Conf. Proc. 1136, 596 (2009); <http://dx.doi.org/10.1063/1.3160214>
40. "Al Doped ZnO Thin Film Based Ultraviolet Photo-Conductive Sensor Prepared by Sol-Gel Spin-Coating Method"  
M. H. Mamat, M. Z. Sahdan, S. Amizam, H. A. Rafaie, Z. Khusaimi and M. Rusop  
AIP Conf. Proc. 1136, 591 (2009); <http://dx.doi.org/10.1063/1.3160213>
41. "Effect Of Au Thickness On The Structural Properties Of Carbon Nanostructure Deposited On

Nanostructured ZnO Thin Film As A Template”

A. A. Azira, Z. Khusaimi, N. F. A. Zainal, S. F. Nik and M. Rusop

AIP Conf. Proc. 1136, 730 (2009); <http://dx.doi.org/10.1063/1.3160245>

42. “Influence of Annealing Temperature on the Photo-Electrical and Structural Disorder Characteristics of Nano-Structured Zinc Oxide Thin Films”  
M. H. Mamat, M. Z. Sahdan, S. Amizam, H. A. Rafaie, Z. Khusaimi and M. Rusop  
AIP Conf. Proc. 1136, 601 (2009); <http://dx.doi.org/10.1063/1.3160215>
43. “The Influence of Ar Gas Flow on the Luminescence Properties of ZnO Nanowires”  
M. Z. Sahdan, M. H. Mamat, S. Amizam, H. A. Rafaie, Z. Khusaimi, U. M. Noor and M. Rusop  
AIP Conf. Proc. 1136, 312 (2009); <http://dx.doi.org/10.1063/1.3160154>
44. “Synthesis of ZnO Nanowires on ZnO Microsheets Grown on Gold Catalyst”  
M. Z. Sahdan, M. H. Mamat, S. Amizam, H. A. Rafaie, Z. Khusaimi, U. M. Noor and M. Rusop  
AIP Conf. Proc. 1136, 545 (2009); <http://dx.doi.org/10.1063/1.3160203>
45. “New Approach of ZnO Nanowires Grown on ZnO Microball using Gas Blocker in Catalytic Thermal Chemical Vapor Deposition”  
M. Z. Sahdan, M. H. Mamat, S. Amizam, H. A. Rafaie, Z. Khusaimi, U. M. Noor and M. Rusop  
AIP Conf. Proc. 1136, 307 (2009); <http://dx.doi.org/10.1063/1.3160153>

#### **PUBLICATION - Chapter in Book**

**“ZnO Nanorod Arrays Synthesized Using Ultrasonic-Assisted Sol-Gel and Immersion Methods for Ultraviolet Photoconductive Sensor Applications”** by Mohamad Hafiz Mamat, Zuraida Khusaimi, Musa Mohamed Zahidi and Mohamad Rusop Mahmood. Book Chapter. “Nanorods” edited by Orhan Yalcin, ISBN 978-953-51-0209-0, InTech, March 3, 2012.

#### **CONTRIBUTION OF EXPERTISE - Thesis Examiner**

- |    |                        |  |                                 |   |
|----|------------------------|--|---------------------------------|---|
| 1. | MSc.<br>(Oct<br>2018)  | The Effect of Preparation Parameters on the Size of Ag-Co Nanoparticles Supported on Silica Rice Husk For the Liquid-Phase Oxidation of Cyclohexene              | Nur Izzati Mohd.<br>Anuar       | Universiti<br>Teknologi MARA<br>(UiTM)  |
| 2. | MSc.<br>(Sep.<br>2018) | Preparation and Optimisation of Silicon Nanowires by Silver Nanoparticle-Assisted Chemical Etching   | Hafsa Omar                      | Universiti<br>Teknologi MARA<br>(UiTM)  |
| 3. | MSc.<br>(Aug<br>2018)  | Solar-Energy Conversion Performance Boosting from the Sensitization of Titanium Dioxide Nanotubes with Tungsten Trioxide Fabricated via Electrodeposition Method | Nur Farah Atikah<br>Harun       | Universiti<br>Teknologi MARA<br>(UiTM)  |
| 4. | MSc.<br>(Oct<br>2017)  | Electrical Properties of Spin Coated MEH-PPV: ZnO Nanocomposites for Organic Light Emitting Diodes   | Najwa Ezira<br>Ahmed            | Universiti<br>Teknologi MARA<br>(UiTM)  |
| 5. | MSc.<br>(May<br>2017)  | Fabrication of Titanium Dioxide Nanorods Array for Ultraviolet Sensor Application  | Salina Mohammad<br>Mokhtar      | Universiti Tun<br>Hussien Onn<br>(UTHM) |
| 6. | MSc.<br>(Aug<br>2016)  | Nanostructured Flourine Doped Tin Oxide For Transparent Conducting Oxide of Dye Sensitized Solar Cells   | Muhammad<br>Luqman Mohd<br>Napi | Universiti Tun<br>Hussien Onn<br>(UTHM) |
| 7. | MSc.<br>(Apr           | - Deposition of ZnO Thin Films on Flexible Substrates by RF Magnetron  | Nur Sa’adiah<br>Muhamad Sauki   | Universiti<br>Teknologi MARA            |

2013) Sputtering

(UiTM)

#### **CONTRIBUTION OF EXPERTISE - Journal Reviewer**

1. Nano Structures and Nano Objects, NANOSO - 2018 (3)
2. Material Science in Semiconductor Processing – 2016 (1), 2018 (1)
3. ICASIT Conference- 2015 (3), 2018 (2)
4. Thin Solid Film – 2015 (2), 2018 (1)
5. IIES 2014 Conference paper (3)
6. Materials Chemistry and Physics – 2014 (1)
7. Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry – 2011(1)
8. Materials Science and Engineering B – 2009 (1), 2010 (1), 2014 (1), 2017 (2)

#### **PROFESSIONAL MEMBERSHIP**

1. ACS - American Chemical Society since May 2017
2. MIND - Institute Materials Malaysia since Feb 2014
3. ANALIS - Persatuan Sains Analisis Malaysia since August 2004

#### **EMPLOYMENT & EXPERIENCE**

- Senior Lecturer (Jul 2008 – present) at UiTM
- Permanent Lecturer (Jan 1995 – Jun 2008) at UiTM
  - A Level Chemistry (1995 – 1997, 2001 – 2007, 2011-2013)
  - Chemistry for 1<sup>st</sup>. Semester Engineering students (1997 – 1999)
- Contract Lecturer (Jan 1993 – Dec 1994) at International Education Centre (INTEC) formerly known as Pusat Pendidikan Persediann (PPP), UiTM
- Administrative Experience at UiTM
  - Coordinator (Administration) at Post-graduate Office, Faculty of Applied Sciences (Nov 2013 – Jun 2017)
  - INTEC, UiTM Science Core Person (2005 - 2007 )
  - Local Assistant Examiner (Edexcel) (June 2004, June 2006, Jan 2007, June 2007)

**-END-**

