



Curriculum Vitae



PERSONAL PARTICULARS

Name : Dr. Zuratul Ain Abdul Hamid
Current Position : Lecturer
Department : School of Materials & Mineral Resources Engineering
Engineering Campus, Universiti Sains Malaysia
Tel. Number (Office) : 604-5996153/017-3320778
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Email Address : srzuratulain@usm.my
Current Address : School of Materials & Mineral Resources Engineering
Engineering Campus, Universiti Sains Malaysia,
14300 Nibong Tebal, Pulau Pinang

ACADEMIC & PROFESSIONAL QUALIFICATIONS

Year	Degree	Discipline	University
2001	Bachelor of Engineering (Honours)	Materials Engineering	Universiti Sains Malaysia
2002	Master of Science	Materials Engineering	Universiti Sains Malaysia
2010	Doctor of Philosophy	Chemical & Biomolecular Engineering	The University of Melbourne, Australia

TITLES OF POSTGRADUATE THESES (MSc & PhD)

MSc : Reinforcement of rubber composition filled with calcium carbonate particles

PhD : The synthesis of biocompatible hydrogel scaffolds for tissue engineering applications

WORKING EXPERIENCE

Year	Position	Field of Work	Place of Work
Jan-Dec 2009	Research Assistant	Research in Polymeric Biomaterials	Department of Chemical & Biomolecular Engineering, University of Melbourne
Feb - Nov 2011	Attachment	Assistant in Teaching/Research	Universiti Sains Malaysia
Nov 2011 - present	Lecturer	Teaching/Research	Universiti Sains Malaysia

MAIN RESEARCH AREAS

Polymeric Biomaterials, Hydrogel Scaffolds, Micro/Nanospheres/particles for Drug Delivery, Tissue Engineering and Regenerative Medicine,

RESEARCH & PUBLICATION

Research Publication

Journal/E-Journal/Journal Proceeding (each publication)

International

- 1) *Addition of biological functionality to poly(ϵ -Caprolactone) films*, Prime, E. L.; Zuratul Ain Abdul Hamid.; Cooper-White.; J. J. Qiao, G.G. *Biomacromolecules* **2007**, 8(8), pg 2416-2421.
- 2) *Epoxy-amine synthesised hydrogel scaffolds for soft tissue engineering*, Zuratul A. A. Hamid, Anton Blencowe, Berkay Ozcelik, Jason Palmer, Geoffrey W. Stevens, Keren M. Abberton, Wayne A. Morrison, Anthony J. Penington, Greg G. Qiao., *Biomaterials* **2010**, 31, pg 6454-6467.

- 3) *Effect of EDA/PEGDGE mole ratios on PEG-based Hydrogel Scaffolds Properties*, Zuratul Ain Abdul Hamid, Anton Blencowe, Greg Qiao, Geoff Stevens, *Advanced Materials Research* **2013**, Vol. 626, pg 681-685
- 4) *Effect of Silane Coupling Agent on the Curing, Tensile, Thermal, and Swelling Properties of EPDM/Mica Composites*, H. Ismail, Z. A. A. Hamid, S. Ishak, *Advanced Materials Research* **2013**, Vol. 626, pg 641-651
- 5) *Effect of Soya Bean Flour Content on Mechanical Properties and Biodegradability of Poly(vinyl alcohol) Film*, Fairus Mazlia Mat Suki, Hanafi Ismail and Zuratul Ain Abdul Hamid, *Advanced Materials Research* **2013**, Vol. 626, pg 360-365
- 6) *Comparison effect of mica and talc as filler in EPDM composites on curing, tensile and thermal properties*, H. Ismail, S. Ishak, Z. A. A. Hamid, *Progress in Rubber, Plastic and - Recycling Technology* **2013**, 29 (2)
- 7) *Surface Engineered Poly (lactic acid)(PLA) Microspheres by Chemical Treatment for Drug Delivery System*, CY Tham, ZAA Hamid, ZA Ahmad, H Ismail, *Key Engineering Materials* **2014**, 594, pg 214-218
- 8) *Effect of Synthesis Parameters on Size of the Biodegradable Poly (L-Lactide)(PLLA) Microspheres*, AA Hawari, CY Tham, ZAA Hamid, *Advanced Materials Research* **2014**, 858, pg 60-66
- 9) *Surface Modification of Poly(lactic acid) (PLA) via Alkaline Hydrolysis Degradation*, CY Tham, ZAA Hamid, ZA Ahmad, H Ismail, *Advanced Materials Research*, **2014**, 970, pg 324-327
- 10) *Tensile Properties of Poly (L-Lactic) Acid (PLLA) Blends*, Netnapa Eawwiboonthanakit, Mariatti Jaafar, Zuratul Ain Abdul Hamid, Mitsugu Todo, Banhan Lila, *Advanced Materials Research*, **2014**, 1024, pg 179-183
- 11) *Effect of silane coupling agent on the curing, tensile, thermal, and swelling properties of ethylene-propylene-diene monomer rubber (EPDM)/mica composites*, H Ismail, S Ishak, ZAA Hamid, *Journal of Vinyl and Additive Technology*, **2014**, 20 (2), 116-121

- 12) *Poly (L-lactic) acid (PLLA) blends: Melt Flow Indexes and Tensile Properties.*, N Eawwiboonthanakit, M Jaafar, ZAA Hamid, T Mitsugu, B Lila, Australian Journal of Basic & Applied Sciences, **2014**, 8 (5)
- 13) *Effect of Blend Ratio on Cure Characteristics, Tensile Properties, Thermal and Swelling Properties of Mica-Filled (Ethylene-Propylene-Diene Monomer)/(Recycled Ethylene-Propylene-Diene Monomer) (EPDM/r-EPDM) Blends*, H. Ismail, S. Ishak, Z.A.A. Hamid, **2014**, DOI 10.1002/vnl.21369
- 14) *Poly (vinyl alcohol) in Fabrication of PLA Micro- and Nanoparticles using Emulsion and Solvent Evaporation Technique*, C.Y. Tham, Z. A Abdul Hamid, H. Ismail, Z. Ahmad, **2014**, 1024, pg 296-299

National

- 1) *Designing the Next-Generation of Scaffolds for Soft Tissue Re-Growth*, Z.A., Abdul Hamid, Blencowe, A., Qiao, G.G., Stevens, G., Palmer, J., Morrison, W.A., and Penington, T., Buletin Enjinier, Pusat Pengajian Kejuruteraan Bahan & Sumber Mineral, **2011**.

Patent

- 1) Qiao, G.G., Abdul Hamid, Z.A., Blencowe, A., Stevens, G. *Cross-linked Hydrogel*, Australian Provisional Patent, PCT/AU2008903301 (**June 2008**)

Conference Proceeding

International

- 1) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G. *Model Study: Synthesis and Modification of Hydrogel Pore Morphologies for Tissue Engineering Applications*, Proceeding of 29th Australasian Polymer Symposium (APS), Hobart, Australia, 11-15th February **2007**, p271.
- 2) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G. *Synthesis and Properties of Interpenetrating Polyethylene glycol (PEG) - Polycaprolactone (PCL) Hydrogels*, Proceeding of The 42nd IUPAC World Polymer Congress MACRO, Taipei, Taiwan, 29th June-4th July **2008**, p129.
- 3) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G., Palmer, J., Morrison, W.A., Penington, T., *Designing the Next-Generation of Scaffolds for Soft Tissue Re-Growth*,

Proceeding of MERIT 2008 Research Symposium, The University of Melbourne, Parkville, Melbourne Australia, 2nd October **2008**, p1.

- 4) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G., Palmer, J., Morrison, W.A., Penington, T., *Designing the Next-Generation of Scaffolds for Soft Tissue Re-Growth*, Proceeding of 30th Australasian Polymer Symposium (APS), Melbourne, Australia, 30th November-4th December **2008**, p465.
- 5) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G. *Biocompatible and Biodegradable Hydrogels with Improved Mechanical Properties for Tissue Engineering Applications*, Proceeding of 30th Australasian Polymer Symposium (APS), Melbourne, Australia, 30th November-4th December **2008**, p95.
- 6) Ozcelik, B., Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G., Palmer, J., Morrison, W.A., Penington, T., Abberton, K., *Cell-surface Interactions of Biodegradable Hydrogels for Tissue Regeneration*, Proceeding of 11th Pacific Polymer Conference (PPC), Cairns, Australia, 6th – 10th December **2009**.
- 7) Z.A., Abdul Hamid, A., Blencowe, J., Palmer, K. M., Abberton, W. A., Morrison, A. J., Penington, G.G., Qiao, G., Stevens, **2011**, *Hydrogel Scaffolds; Advanced Materials for Soft Tissue Re-Growth*, Proceeding of 5th Kuala Lumpur International Conference on Biomedical Engineering (8th Asia Pacific Conference on Medical & Biological Engineering), Berjaya Hotel, Kuala Lumpur,
- 8) Zuratul Ain Abdul Hamid, Anton Blencowe, Greg G. Qiao and Geoff Stevens, **2011**, *The development of biodegradable PEG-based hydrogel scaffolds for soft tissue replacement*, Proceeding of 4th AUN/SEED-net Regional Conference on Materials. 'High Performance Materials', Hanoi University of Science & Technology, Hanoi Vietnam.
- 9) Z.A., Abdul Hamid, A., Blencowe, J., Palmer, K. M., Abberton, W. A., Morrison, A. J., Penington, G.G., Qiao, G., Stevens, *Hydrogel Scaffolds: Advanced materials for soft tissue replacement*, Proceeding of USM-NUT Joint Research Seminar, 17 October **2011**, INFORMM, Universiti Sains Malaysia.
- 10) Abdul Hamid, Z. A., Blencowe, A., Qiao, G. G., Stevens, G., *Evaluation of PEG-based hydrogel scaffolds properties for tissue engineering applications*, Proceeding of The 44th

IUPAC World Polymer Congress MACRO, Enabling Technologies for a Safe, Sustainable, Healthy World, Virginia United State, June 24- 29 **2012**, Virginia Tech.

- 11) S. Ishak, H. Ismail, Z. A. A. Hamid, *Curing, Tensile and Thermal Properties of Ethylene Propylene Diene Monomer (EPDM)/Mineral Fillers Composites*, Proceeding of The Asian International Conference on Materials, Minerals and Polymer **2012** (MAMIP 2012), Vistana, Penang, March 23-24 2012.
- 12) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Preparation and Properties of Polyvinyl Alcohol/Banana Frond Flour Biodegradable Film*, Proceeding of The Asian International Conference on Materials, Minerals and Polymer **2012** (MAMIP 2012), Vistana, Penang, March 23-24 2012.
- 13) Z. A., Abdul Hamid, Anton Blencowe, Greg Qiao, Geoff Stevens, *Effect of EDA/PEGDGE mole ratios on PEG-based Hydrogel Scaffolds Properties*, International Conference on Advanced Material Engineering & Technology **2012** (ICAMET 2012), November 28-30 2012
- 14) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Effect of Soya Bean Flour Content on Mechanical Properties and Biodegradability of Poly(vinyl alcohol) Film*, International Conference on Advanced Material Engineering & Technology **2012** (ICAMET 2012), November 28-30 2012
- 15) H. Ismail 1, Z. A. A. Hamid, S. Ishak, *Effect of Silane Coupling Agent on the Curing, Tensile, Thermal, and Swelling Properties of EPDM/Mica Composites*, International Conference on Advanced Material Engineering & Technology **2012** (ICAMET 2012), November 28-30 2012
- 16) Zuratul Ain Abdul Hamid, Akmal Afham Hawari, *Effect Of PVA Stabilizer On Size Of Synthesized PLLA Microspheres*, Proceeding of The 5th AUN/SEED-Net Regional Conference on Materials & The 5th Regional Conference on Natural Resources and Materials (RCM 5 & RCNRM 5), 22-23 Januari **2013**
- 17) Z. A. Abdul Hamid, A. Blencowe, G. G. Qiao, G. Stevens, *Improved PEG-based Hydrogel Scaffolds Properties for Tissue Engineering Applications*, Proceeding of The Society of Polymer Science, Japan (SPSJ), The 62nd SPSJ Annual Meeting, 29- 31 May **2013**

- 18) Z. A. Abdul Hamid, A. Blencowe, G. G. Qiao, G. Stevens, *Designing the Next-Generation of Scaffolds for Soft Tissue Applications*, Lecture and Discussion with academic faculty of Kyoto Institute of Technology, 3rd June **2013**
- 19) C.Y. Tham, Z. A Abdul Hamid, Z. Ahmad, H. Ismail, *Surface Modification of Poly(lactic acid) (PLA) Microspheres via Alkaline Hydrolysis Degradation*, Proceeding of International Conferences on the Science and Engineering of Materials (ICoSEM) 2013, Kuala Lumpur, 13-14 November **2013**
- 20) C.Y. Tham, Z. A Abdul Hamid, H. Ismail, Z. Ahmad, *The Studies of Poly (vinyl alcohol) Usage in Micro-/Nano-particles Fabrication through Emulsion and Solvent Evaporation Method*, Proceeding of 3rd International Conference on The Advancement of Materials and NanoTechnology 2013, (ICAMN 2013), ParkRoyal Batu Feringhi, Pulau Pinang, 19-22 November **2013**
- 21) Netnapa Eawwiboonthanakit, Mariatti Jaafar, Zuratul Ain Abdul Hamid, Todo Mitsugund Banhan Lila, *The Evaluation of Properties of Poly(L-lactic) acid (PLLA) blends*, Proceeding of 3rd International Conference on The Advancement of Materials and NanoTechnology 2013, (ICAMN 2013), ParkRoyal Batu Feringhi, Pulau Pinang, 19-22 November **2013**
- 22) C. Y. Tham, Z. A. Abdul Hamid, *Surface Engineered Poly (lactic acid) (PLA) Microspheres by Chemical Treatment for Drug Delivery System*, 2nd International Conference on Advanced Material Engineering & Technology 2013 (ICAMET 2013), Bandung, Indonesia, November 28-29, **2013**
- 23) C. Y. Tham, Z. A Abdul Hamid, Z. Ahmad, H. Ismail, *Estimation of Drug Loading Efficiency in Microspheres by “Shake Flask” Method*, , 26th Annual Conference of the European Society for Biomaterials, Liverpool United Kingdom, 31th August – 3rd September **2014**
- 24) Zuratul Ain Abdul Hamid, *Polymeric Biomaterials for Tissue and Organ Regeneration*, Conference on Tropical Resources and Sustainable Sciences (CTRESS) 2014, Kota Bahru, Kelantan, 17th -19th October **2014**
- 25) Z. A. Abdul Hamid, Low Hong Fook, *Synthesis and Functionalization of Silicone Hydride Copolymer with Allyl Methacrylate via Hydrosilylation Method*, 2nd Advanced Materials Conference 2014 (AMC 2014), Langkawi, Kedah, 24th – 26th November **2014**

- 26) Zuratul Ain Abdul Hamid, Anton Blencowe, Berkay Ozcelik, Greg Qiao, Geoff Stevens, Jason Palmer, Keren M. Abberton, Wayne A. Morrison, Anthony J. Penington, *In vivo studies of Biocompatible PEG-based Hydrogel Scaffolds Modified with Biofactors*, 2014 IEEE Conference on Biomedical Engineering and Sciences (IECBES), Miri, Sarawak, 8th -10th December **2014**

National

- 1) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Crosslinked Poly(vinyl alcohol) and Soya Bean Flour Blend Films: Tensile Properties, Water Absorption and Water Vapour Transmission Rate*, Book of Abstract of National Symposium on Polymeric Materials **2012** (NSPM), October 3-5
- 2) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Biodegradation Study of Poly(vinyl alcohol)/Soya Bean Powder Blend Films*, Book of Abstract of National Symposium on Polymeric Materials **2012** (NSPM), October 3-5
- 3) Tham Cho Yin, Zuratul Ain Abdul Hamid, *Modification of Pore Morphology of Non-degradable PEG-based Hydrogel Scaffolds for Tissue Engineering Applications*, Tham Cho Yin, Zuratul Ain Abdul Hamid, Book of Abstract of National Symposium on Polymeric Materials **2012** (NSPM), October 3-5 2012
- 4) C.Y. Tham, Z. A Abdul Hamid, H. Ismail, Z. Ahmad, *Effects of Polymer and Stabilizer Concentration on Morphological Properties of Poly (lactic acid) (PLA) Microspheres*, Book of Abstract for 13th National Symposium On Polymeric Materials 2013 (NSPM 2013) Conference , UniKL City campus, Kuala Lumpur, 1-3 October **2013**

Conference Presentation (oral or poster) (each presentation)

International

- 1) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G. *Model Study: Synthesis and Modification of Hydrogel Pore Morphologies for Tissue Engineering Applications*, 29th Australasian Polymer Symposium (APS), Hobart, Australia, 11-15th February **2007**, p271.
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- 3) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G., Palmer, J., Morrison, W.A., Penington, T., *Designing the Next-Generation of Scaffolds for Soft Tissue Re-Growth*, MERIT 2008 Research Symposium, The University of Melbourne, Parkville, Melbourne Australia, 2nd October **2008**, p1.
- 4) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G., Palmer, J., Morrison, W.A., Penington, T., *Designing the Next-Generation of Scaffolds for Soft Tissue Re-Growth*, 30th Australasian Polymer Symposium (APS), Melbourne, Australia, 30th November-4th December **2008**, p465.
- 5) Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G. *Biocompatible and Biodegradable Hydrogels with Improved Mechanical Properties for Tissue Engineering Applications*, 30th Australasian Polymer Symposium (APS), Melbourne, Australia, 30th November-4th December **2008**, p95.
- 6) Ozcelik, B., Abdul Hamid, Z.A., Blencowe, A., Qiao, G. G., Stevens, G., Palmer, J., Morrison, W.A., Penington, T., Abberton, K., *Cell-surface Interactions of Biodegradable Hydrogels for Tissue Regeneration*, 11th Pacific Polymer Conference (PPC), Cairns, Australia, 6th – 10th December **2009**.
- 7) Z.A., Abdul Hamid, A., Blencowe, J., Palmer, K. M., Abberton, W. A., Morrison, A. J., Penington, G.G., Qiao, G., Stevens, **2011**, *Hydrogel Scaffolds; Advanced Materials for Soft Tissue Re-Growth*, 5th Kuala Lumpur International Conference on Biomedical Engineering (8th Asia Pacific Conference on Medical & Biological Engineering), Berjaya Hotel, Kuala Lumpur,
- 8) Zuratul Ain Abdul Hamid, Anton Blencowe, Greg G. Qiao and Geoff Stevens, **2011**, *The development of biodegradable PEG-based hydrogel scaffolds for soft tissue replacement*, 4th AUN/SEED-net Regional Conference on Materials. 'High Performance Materials', Hanoi University of Science & Technology, Hanoi Vietnam.
- 9) Z.A., Abdul Hamid, A., Blencowe, J., Palmer, K. M., Abberton, W. A., Morrison, A. J., Penington, G.G., Qiao, G., Stevens, *Hydrogel Scaffolds: Advanced materials for soft tissue replacement*, USM-NUT Joint Research Seminar, 17 October **2011**, INFORMM, Universiti Sains Malaysia.

- 10) Abdul Hamid, Z. A., Blencowe, A., Qiao, G. G., Stevens, G., *Evaluation of PEG-based hydrogel scaffolds properties for tissue engineering applications*, The 44th IUPAC World Polymer Congress MACRO, Enabling Technologies for a Safe, Sustainable, Healthy World, Virginia United State, June 24- 29 **2012**, Virginia Tech.
- 11) S. Ishak, H. Ismail, Z. A. A., Hamid, *Curing, Tensile and Thermal Properties of Ethylene Propylene Diene Monomer (EPDM)/Mineral Fillers Composites*, The Asian International Conference on Materials, Minerals and Polymer 2012 (MAMIP 2012), Vistana, Penang, March 23-24 **2012**.
- 12) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Preparation and Properties of Polyvinyl Alcohol/Banana Frond Flour Biodegradable Film*, The Asian International Conference on Materials, Minerals and Polymer 2012 (MAMIP 2012), Vistana, Penang, March 23-24 **2012**.
- 13) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Effect of Soya Bean Flour Content on Mechanical Properties and Biodegradability of Poly(vinyl alcohol) Film*, International Conference on Advanced Material Engineering & Technology 2012 (ICAMET 2012), November 28-30 **2012**
- 14) Zuratul Ain Abdul Hamid, Akmal Afham Hawari, *Effect Of PVA Stabilizer On Size Of Synthesized PLLA Microspheres*, The 5th AUN/SEED-Net Regional Conference on Materials & The 5th Regional Conference on Natural Resources and Materials (RCM 5 & RCNRM 5), 22-23 Januari **2013**
- 27) Z. A. Abdul Hamid, A. Blencowe, G. G. Qiao, G. Stevens, *Improved PEG-based Hydrogel Scaffolds Properties for Tissue Engineering Applications*, The Society of Polymer Science, Japan (SPSJ), The 62nd SPSJ Annual Meeting, 29- 31 May **2013**
- 28) Z. A. Abdul Hamid, A. Blencowe, G. G. Qiao, G. Stevens, *Designing the Next-Generation of Scaffolds for Soft Tissue Applications*, Lecture and Discussion with academic faculty of Kyoto Institute of Technology, 3rd June **2013**
- 29) C.Y. Tham, Z. A Abdul Hamid, Z. Ahmad, H. Ismail, *Surface Modification of Poly (lactic acid) (PLA) via Alkaline Hydrolysis Degradation*, International Conferences on the Science and Engineering of Materials (ICoSEM) 2013, Kuala Lumpur, 13-14 November **2013**

- 30) C.Y. Tham, Z. A Abdul Hamid, H. Ismail, Z. Ahmad, *The Studies of Poly (vinyl alcohol) Usage in Micro-/Nano-particles Fabrication through Emulsion and Solvent Evaporation Method*, 3rd International Conference on The Advancement of Materials and NanoTechnology 2013, (ICAMN 2013), ParkRoyal Batu Feringhi, Pulau Pinang, 19-22 November **2013**
- 31) Netnapa Eawwiboonthanakit, Mariatti Jaafar, Zuratul Ain Abdul Hamid, Todo Mitsuguand Banhan Lila, *The Evaluation of Properties of Poly(L-lactic) acid (PLLA) blends*, 3rd International Conference on The Advancement of Materials and NanoTechnology 2013, (ICAMN 2013), ParkRoyal Batu Feringhi, Pulau Pinang, 19-22 November **2013**
- 32) C. Y. Tham, Z. A. Abdul Hamid, *Surface Engineered Poly (lactic acid) (PLA) Microspheres by Chemical Treatment for Drug Delivery System*, 2nd International Conference on Advanced Material Engineering & Technology 2013 (ICAMET 2013), Bandung, Indonesia, November 28-29, **2013**
- 33) C. Y. Tham, Z. A Abdul Hamid, Z. Ahmad, H. Ismail, *Estimation of Drug Loading Efficiency in Microspheres by “Shake Flask” Method*, , 26th Annual Conference of the European Society for Biomaterials, Liverpool United Kingdom, 31th August – 3rd September **2014**
- 34) Zuratul Ain Abdul Hamid, *Polymeric Biomaterials for Tissue and Organ Regeneration*, Conference on Tropical Resources and Sustainable Sciences (CTRESS) 2014, Kota Bahr, Kelantan, 17th -19th October **2014**
- 35) Z. A. Abdul Hamid, Low Hong Fook, *Synthesis and Functionalization of Silicone Hydride Copolymer with Allyl Methacrylate via Hydrosilylation Method*, 2nd Advanced Materials Conference 2014 (AMC 2014), Langkawi, Kedah, 24th – 26th November **2014**
- 36) Zuratul Ain Abdul Hamid, Anton Blencowe, Berkay Ozcelik, Greg Qiao, Geoff Stevens, Jason Palmer, Keren M. Abberton, Wayne A. Morrison, Anthony J. Penington, *In vivo studies of Biocompatible PEG-based Hydrogel Scaffolds Modified with Biofactors*, 2014 IEEE Conference on Biomedical Engineering and Sciences (IECBES), Miri, Sarawak, 8th -10th December **2014**

National

- 1) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Crosslinked Poly(vinyl alcohol) and Soya Bean Flour Blend Films: Tensile Properties, Water Absorption and Water Vapour Transmission Rate*, National Symposium on Polymeric Materials 2012 (NSPM), October 3-5 **2012**
- 2) F. M. Mat Suki, H. Ismail, Z. A., Abdul Hamid, *Biodegradation Study of Poly(vinyl alcohol)/Soya Bean Powder Blend Films*, National Symposium on Polymeric Materials 2012 (NSPM), October 3-5 **2012**
- 3) Tham Cho Yin, Zuratul Ain Abdul Hamid, *Modification of Pore Morphology of Non-degradable PEG-based Hydrogel Scaffolds for Tissue Engineering Applications*, National Symposium on Polymeric Materials 2012 (NSPM), October 3-5 **2012**
- 4) C.Y. Tham, Z. A Abdul Hamid, H. Ismail, Z. Ahmad, *Effects of Polymer and Stabilizer Concentration on Morphological Properties of Poly (lactic acid) (PLA) Microspheres*, 13th National Symposium On Polymeric Materials 2013 (NSPM 2013) Conference , UniKL City campus, Kuala Lumpur, 1-3 October **2013**

*-Underline Author: Presenter (oral or poster) of the research work

Publication Related to Teaching

i) Teaching Modules

- 1) Z. A., Abdul Hamid, (2011) EBP 314 Resin Manufacturing
- 2) Z. A., Abdul Hamid (2011) EBP 103 Polymer Organic Chemistry
- 3) Z. A., Abdul Hamid, (2012) EBP 308 Rubber: Product & Processing
- 4) Z. A., Abdul Hamid, (2012) EBP 207 Transport phenomena in Polymers

RESEARCH GRANT

1) Incentive Grant (USM)

Researcher(s) : Z.A., Abdul Hamid
Role : Main Researcher
Duration : 24th Februari 2011 - 23rd Februari 2012
Status : Completed

"Synthesis and characterization of a biocompatible and biodegradable Poly(ethylene glycol) (PEG) cross linked hydrogel scaffolds for soft tissue engineering"

2) Fundamental Research Grant Scheme (FRGS MOHE) (National)

Researcher(s) : Z.A., Abdul Hamid, H. Ismail, Zulkifli Ahmad

Role : Main Researcher

Duration : 1st August 2011 – 31st February 2014

Status : Completed

"The Synthesis Of Porous Peg-Based Hydrogel Scaffolds For Soft Tissue Re-Growth"

3) Short Term Grant (USM)

Researcher(s) : Z.A., Abdul Hamid, H. Ismail, Zulkifli Ahmad

Role : Main Researcher

Duration : 1st December 2011 - 30th November 2013

Status : Completed

"The Development of Biodegradable PEG-Based Hydrogel Scaffolds for Tissue Engineering Applications"

4) Science Fund (MOSTI) (National)

Researcher(s) : H. Ismail, Z.A., Abdul Hamid

Role : Co-Researcher

Duration : 1st October 2011 - 30th September 2013

Status : Completed

"Potential of Oil Palm Ash as a New Filler In Natural Rubber Compounds"

5) Exploratory Research Grant Scheme (ERGS MOHE) (National)

Researcher(s) : Yeoh Fei Yee, Radzali Othman, Hasmaliza Mohamad, Z. A., Abdul Hamid,
Mohamad Hasnor Husin

Role : Co-Researcher

Duration : 1st August 2012 - 31st July 2014

Status : In- progress

"Renal Toxin Removal Through Adsorption by Nanoporous Silica for Artificial Kidney Application"

6) Research University (Individual) Grant (RUI) (Universiti Sains Malaysia)

Researcher(s) : Zuratul Ain Abdul Hamid, Hanafi Ismail, Zulkifli Ahmad

Role : Main Researcher

Duration : 1st December 2013 - 30th November 2016

Status : In- progress

"The Development of Surface Modified Polylactic Acid (PLA) Microspheres for Controlled Drug Delivery"

7) Fundamental Research Grant Scheme (FRGS MOHE) (National)

Researcher(s) : Z.A., Abdul Hamid, Prof. Madya Dr. Zulkifli Ahmad, Dr. Badrul Hisham Yahaya, Prof. Ir. Dr. Mariatti Jaafar

Role : Main Researcher

Duration : 1 July 2014 – 30 June 2017

Status : In-progress

"Synthesis of Folate Molecules on Poly(Lactide) (PLA) Nanoparticles by Bioconjugation Chemistry"

8) Trans-disciplinary Research Grant Scheme (TRGS MOHE) (National)

Researcher(s) : Prof. Ir. Dr. Mariatti Jaafar, Z.A., Abdul Hamid, Dr. Badrul Hisham Yahaya, Dr. Nurazreena Ahmad

Role : Lead Researcher for TRGS Sub Project

Duration : 2014 – 2017

Status : In-progress

"The Development and Fabrication of Growth Factors Encapsulated Polylactic Acid (PLA) Particles"

MEMBER OF PROFESSIONAL BODY

- 1) Graduate Engineer of Board of Engineer (BEM) (since 26 August 2010)
- 2) Ordinary Member of Institute of Materials Malaysia (IMM) (since 1st August 2011)
- 3) Member of Royal Australian Chemical Institute (RACI) (since 5th March 2012)
- 4) Graduate Engineer - The Instituted of Engineers, Malaysia (IEM) (since 4th June 2012)

AWARDS

- 1) Academic Scholarship Teaching Scheme (ASTS), USM, 2004 – 2009
- 2) Eugen Singer Scholarship, University of Melbourne, 2005

- 3) J.H. Miram Memorial Scholarship, University of Melbourne, 2006
- 4) Eugen Singer Scholarship, University of Melbourne, 2007
- 5) Academic Staff Training Scheme (ASTS) Travel Grant (funding from KPT) to attend The 42nd IUPAC World Polymer Congress MACRO, Taipei, Taiwan, 29th June-4th July 2008, p129.
- 6) Growing Innovation Fund (GIF), Melbourne Ventures Pty. Ltd., The University Of Melbourne, 2009.
- 7) AUN/SEED-net Travel Grant to attend 4th AUN/SEED-net Regional Conference on Materials. 'High Performance Materials', Hanoi University of Science & Technology, Hanoi Vietnam.
- 8) Travel Grant (TPLN) 2012, Universiti Sains Malaysia to attend The 44th IUPAC World Polymer Congress MACRO, Enabling Technologies for a Safe, Sustainable, Healthy World, Virginia, United State, June 24- 29 2012, Virginia Tech.
- 9) 'Merit Award' for MyTRIZ National Competition 2012

UNDERGRADUATE/POST GRADUATE TEACHING

- 1) Polymer Organic Chemistry (1st Year)
- 2) Transport Phenomena in Polymer (2nd Year)
- 3) Resin Manufacturing (3rd Year)
- 4) Rubber: Processing and Products (3rd Year)
- 5) Plastic Processing (3rd Year)
- 6) Rubber Laboratory (3rd Year)
- 7) Latex Laboratory (3rd Year)
- 8) Plastic Materials (3rd Year)
- 9) Visual Basic for Engineers (2nd Year)

RECORDS OF SUPERVISION OF UNDERGRADUATE STUDENTS

1. Tham Cho Yi, *Modification of Pore Morphology of Non-degradable PEG-based hydrogel Scaffolds for Tissue Engineering Applications* – Final Year Project 2012
2. Akmal Afham Hawari, *The Development and Optimization of Biodegradable Poly(lactide) (PLLA) Microspheres for Drug Delivery Systems* - Final Year Project 2012

3. Roslinda Hani Ramli, *The Development of Degradable PEG-based Hydrogel Scaffolds for Soft Tissue Engineering Applications* – Final Year Project 2012
4. Ahmad Fikri Abdul Karim – *Synthesis and Properties of Chitosan-PEG Hydrogel*, Final Year Project 2012
5. Kwee Fung Yunn, *Synthesis of Silicone based Biomaterials with Value added PLLA Microspheres as Filler* – Final Year Project 2013
6. Nur Zallia Mohd Saad, *Preparation and Evaluation of Drug Released Profile of Poly(l-Lactide) Acid (PLLA) at Different Condition for Drug Deliver Applications* – Final Year Project 2013
7. Low Hong Fook, *Synthesis and Functiolization of Silicone Hydride Copolymer via Platinum Catalyzed Hydrosilylation of Allyl Methacrylate* – Final Year Project 2013
8. Tan Chin Ping, *The Development of PLLA Particles using Homogenizer ofr Sonicator via Emulsion Solvent Evaporation Technique* – Final Year Project 2014
9. Lim Hui Yin, *Surface Modification of PLLA Thin Film via UV-induced Grafting Method*, Final Year Project 2014

RECORDS OF SUPERVISION OF HIGHER DEGREE STUDENTS

a) PhD

1. Muhammad Afiq Misman (PhD) – Co Supervisor (In progress)
2. Dalina Binti Samsudin (PhD) – Co Supervisor (In progress)

b) MSc

1. Sarah Ishak (MSc) – Co Supervisor (Completed)
2. Tham Cho Yin (MSc) – Main Supervisor (In progress)
3. Fairus Mazlia Mat Suki (MSc) – Co-Supervisor (Completed)
4. Netnapa Eawwiboonthanakit (MSc) – Co Supervisor (In progress)
5. Zahroh Hasanah Binti Darwis Harah- Main Supervisor (In progress)

ACADEMIC RECOGNITION

a) Invited Speaker

- 1) Z. A. Abdul Hamid, A. Blencowe, G. G. Qiao, G. Stevens, Improved PEG-based Hydrogel Scaffolds Properties for Tissue Engineering Applications, The Society of Polymer Science, Japan (SPSJ), The 62nd SPSJ Annual Meeting, 29- 31 May **2013** at Kyoto Convention Centre, Kyoto Japan
- 2) Z. A. Abdul Hamid, A. Blencowe, G. G. Qiao, G. Stevens, Designing the Next-Generation of Scaffolds for Soft Tissue Applications, Lecture and Discussion with academic Faculty of Kyoto Institute of Technology, 3rd June **2013** at Kyoto Institute of Technology, Kyoto Japan
- 3) Zuratul Ain Abdul Hamid, *Polymeric Biomaterials for Tissue and Organ Regeneration*, Conference on Tropical Resources and Sustainable Sciences (CTRESS) 2014, Kota Bahru, Kelantan, 17th -19th October **2014**

REFEREES

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