

CURRICULUM VITAE



Associate Professor Dr Chow Wen Shyang
 Polymer Engineering Programme
 School of Materials & Mineral Resources Engineering
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ACADEMIC QUALIFICATION

1. PhD. Polymer Technology, 2004, Universiti Sains Malaysia.
2. B. Tech. Polymer Technology, 2001, Universiti Sains Malaysia.

AREAS OF INTEREST

1. Polymer blends and composites
2. Polymer nanocomposites
3. Biocomposites and Biodegradable polymers
4. Thermosetting materials

TEACHING EXPERIENCE

No.	Course Code	Course Name	Year
1.	EBP 103/3	Polymer Organic Chemistry	2005 – to date
2.	EBP 202/3	Polymer Structure	2005 – to date
3.	EBP 212/2	Latex Processing	2005 – to date
4.	EBP 324/3	Polymer Degradation and Environment	2005 – to date

PROFESSIONAL QUALIFICATION / MEMBERSHIP

1. Member, Plastics & Rubber Institute Malaysia (PRIM)
2. Member, Society of Plastics Engineers (SPE), USA

PUBLICATIONS

(5 Selected Publications: 2012-2015)

1. W.S. Chow, Y.Y. Leu, Z.A. Mohd Ishak (2012). Effects of SEBS-g-MAH on the properties of injection moulded poly(lactic acid)/nano-calcium carbonate composites, Express Polymer Letters, 6(6):503-510.

2. S.G. Tan, Z. Ahmad, W.S. Chow (2013). Relationships of cure kinetics and processing for epoxidized soybean oil bio-thermoset. *Industrial Crops and Products*, 43: 378-385.
3. M.M. Pang, M.Y. Pun, W.S. Chow & Z.A. Mohd Ishak (2014). Carbon footprint calculation for thermoformed starch-filled polypropylene biobased materials. *Journal of Cleaner Production*, 64: 602–608.
4. S.G. Tan, Z. Ahmad & W.S. Chow (2014). Reinforcing ability and co-catalytic effects of organo-montmorillonite clay on the epoxidized soybean oil bio-thermoset. *Applied Clay Science*, 90: 11–17.
5. W.S. Chow & E.L. Teoh (2015). Flexible and flame resistant poly(lactic acid)/organomontmorillonite nanocomposites. *Journal of Applied Polymer Science*, 132(2): 41253.

RESEARCH GRANTS

(As Project Leader)

No.	Project Title	Amount (RM)	Year	Source
1.	High Performance Recyclable Poly(butyl terephthalate)/Organo-Montmorillonite Nanocomposites	15,000.00	2005	MTSF
2.	An Investigation on the Long Term Properties of Various Commodity Thermoplastic Nanocomposite Filled with Organo-Montmorillonite	19,110.20	2005	USM Short Term Grant
3.	Development of Hydroxyapatite Filled Poly(methyl methacrylate) Dental Materials with High Mechanical Performance, Enhanced Environmental Stability and Radio Opacity Behaviour	116,997.00	2006	ScienceFund
4.	Synthesis and Structure-Property Characterization of Epoxy-Inorganic Layered Silicate Nanocomposites via In-Situ Polymerization	80,000.00	2007	FRGS
5.	Studies on the Degradability and Toughness of Poly(lactic acid) Filled with Montmorillonite and Epoxidized Natural Rubber	17,402.00	2007	USM Short Term Grant
6.	Utilization of Epoxy Based Nanocomposites for the Development of Heat-Resistant Structural Panel	229,000.00	2008	ScienceFund
7.	Preparation and Characterization of Epoxy Nanocomposites Reinforced with Glass Fiber and Montmorillonite	29,886.00	2008	USM Short Term Grant
8.	Development of Flame Retardant Halogen-Free Epoxy Nanocomposites	37,200.00	2010	USM Short Term Grant
9.	Toughened Poly(lactic acid) Green Polymer and Nanocomposites	244,600.00	2010	USM RU Grant

10.	Bio-based Thermoset from Waste Vegetable Oil	50,000.00	2012	ERGS
11.	Understanding of the Structure Properties Relationship and Flame Retardancy Mechanism of Poly(lactic acid) Blends Containing Phosphorus Based Flame Retardant	85,500.00	2013	FRGS
12.	Designing Biodegradable Poly(lactic acid)-Based Blends and Nanocomposites	250,000.00	2013	USM RU Grant

POSTGRADUATE STUDENT SUPERVISION

PhD (Main Supervisor)

No.	Name	Title	Status
1.	Tan Seah Guan	Preparation and Characterization of Epoxidized Soybean Oil based Thermoset, Blends and Nanocomposites.	Graduated
2.	Tham Wei Ling	Preparation and characterization of toughened poly(lactic acid) nanocomposites	Ongoing
3.	Khoo Rong Ze	Preparation and characterization of poly(lactic acid)/nanocellulose biocomposites	Ongoing

MSc – Research (Main Supervisor)

No.	Name	Title	Status
1.	Tham Wei Ling	Preparation and characterization of poly(methyl methacrylate) / hydroxyapatite composites	Graduated
2.	Lim Su Rong	Preparation, characterization and reprocessing-ability of poly(ethylene Terephthalate)/clay nanocomposites	Graduated
3.	Leu Ying Ying	Effects of maleic anhydride grafted rubbers on the properties of poly(lactic acid) nanocomposites	Graduated
4.	Nor Hamidah Mohd.Zulfli	Mechanical, thermal and water absorption properties of epoxy/glass fiber/nanofiller hybrid composites	Graduated
5.	Chang Lee Nah	Flexural, thermal and flammability properties of epoxy hybrid composites with flame retardants	Graduated
6.	Ng Kelvin	Effect of poly(lactic acid) on poly(methyl methacrylate)/hydroxyapatite denture base composites	Graduated
7.	Teoh Ee Lian	Study on thermal and flame resistant properties of poly(lactic acid) blends	On-going

MSc – Mixed mode (Main Supervisor)

No.	Name	Title	Status
1.	Norkharunnisa Binti Mazlan	Effects of organo-montmorillonite on the properties of epoxy/glass fiber composites	Graduated
2.	Yap Yee Peng	Preparation and optimization of flexural properties of epoxy/organo-montmorillonite nanocomposites	Graduated
3.	Lok Sook Kuen	Characterization of poly(lactic acid)/organo-montmorillonite nanocomposites prepared by solution intercalation and melt intercalation methods	Graduated
4.	Tan Pi Lin	Mechanical, morphological and thermal properties of epoxy/multiwall carbon nanotube nanocomposites	Graduated
5.	Khoo Rong Ze	Mechanical, thermal and morphological properties of poly(lactic acid)/sugarcane bagasse fiber composites	Graduated

AWARDS / RECOGNITION

No.	Type	Title	Awarding Authority	Level/Medal	Year
1.	Academic Recognition	Sanggar Sanjung Award (Hall of Fame - Publication)	USM	USM	2008, 2012
2.	Academic Recognition	Merit Award (Publication)	USM	USM	2007, 2008, 2009, 2010, 2011
3.	Academic Recognition	Merit Award (Research Product)	USM	USM	2008, 2009
4.	Exhibition Award	Hand-Lay Up Epoxy Hybrid Nanocomposites	MTE	National/ Gold Medal	2008
5.	Exhibition Award	Hand-Lay Up Epoxy Hybrid Nanocomposites	Geneva	International/ Bronze Medal	2009
6.	Exhibition Award	Recyclable Poly(butylene terephthalate) Nanocomposites (ReNanoPBT)	MTE	National/ Silver Medal	2009
7.	Exhibition Award	Value Added Eco-Friendly Poly(lactic acid) Nanocomposites [Sustain-NanoPLA]	MTE	National/ Bronze Medal	2010
8.	Exhibition Award	THERMOILSET: A Flexible Bio-Epoxy	ITEX	International/ Bronze Medal	2010

9.	Exhibition Award	Environmental Friendly NanoFR-Coating for Epoxy Hybrid Laminates	MTE	National/Silver Medal	2014
10.	Editorial Board	Periodica Polytechnica – Ser. Mechanical Engineering, Budapest University of Technology and Economics, Budapest, Hungary.	Periodica Polytechnica – Ser. Mechanical Engineering	International	2014 –to date

PROFESSIONAL SERVICES / CONSULTATION

Selected Major Activities

No.	Year	Title	Company
1.	2011	Thermal analysis of polymer samples	Daya Polymer Sdn Bhd
2.	2012-2013	Analysis of latex gloves	Accurativ (M) Sdn Bhd