

CURRICULUM VITAE

NAME: JAMIL B. ISMAIL (530528-02-5213)

QUALIFICATIONS: PhD - Physical Chemistry (Imperial College, 1982), BSc (UKM 1979)

CURRENT POSITION: Dean Faculty of Industrial Science & Technology, University Pahang Malaysia (2013 -)

CONTACT: H/phone - 012 4075213; email – jamilismail@ump.edu.my

EXPERIENCES

Teaching and Research Supervision – 27 years

- Professor of School of Chemical Sciences, Universiti Sains Malaysia (retired May 2009)
- Lecture: Physical Chemistry, Colloid Chemistry, Polymer Science, and Current Topics in Materials Science
- Research supervision of postgraduates (PhD & MSc), and final year undergraduates

Academic Appointments

- Dean: Faculty of Industrial Science and Technology, Universiti Malaysia Pahang (November 2013 -)
- Dean: School of Chemical Sciences, USM (2001 – 2005)
- Deputy Dean: School of Chemical Sciences, USM (1991 – 1993; 1997 – 1998; 1998 -2000)
- Chairman: Industrial Chemistry Program, School of Chemical Sciences USM (1989 – 1991)

External Appointments

- Academic Advisory Panel – Universiti Malaysia Kelantan (2015 –)
- Techno Fund Review Panel - Industry (2014)
- Committee Member of the Nanotechnology Innovation, Technology Development, and Commercialization, National Nanotechnology Directorate MOSTI (2011 –)
- Editorial Board Member of the Journal Rubber Research (2008 - 2011)
- Reviewer – Journal Applied Polymer Science (2008-), Journal Polymer Science (2008 -), Journal of Physical (2008 -), Journal Microscopy Research & Techniques (Australia - 2003), Malaysiana Journal of Sciences 2003), Pertanika Journal of Science & Technology (2002), Malaysiana, Journal of Tropical Forest Products (1990), Science Pertanika (1989)
- External Examiner for PhD and Master candidates: University Malaya, Universiti Kebangsaan Malaysia , Universiti Putra Malaysia, Universiti Teknologi Mara, and University of South Australia
- External Assessor for Promotion of Academic Staff (occasional): Universiti Kebangsaan Malaysia and Universiti Teknologi Malaysia
- Academic Advisory Panel – Universiti Malaysia Pahang (2003 – 08)
- Member of Cluster Development Committee for Chemistry, Academy Science Malaysia – 2004
- Member Science Quality Assurance Committee, Jabatan Perkhidmatan Awam 2001 - 2006.
- Visiting Scientist/Fellow at

- a. Key Center for Polymer Colloids University Sydney (2000)
- b. Wood Research Institute Kyoto (1989)
- Expert Panel Member and reviewer for
 - a. National IRPA Grant
 - b. Academy Science Research Grant

Industries and Corporations

- Project Leader – Research and Development Collaboration with Dimension Bid (M) Sdn Bhd 2016 –
- Board of Directors UMP Technopro Sdn Bhd, a UMPH subsidiary (2014 -)
- Academic Curriculum Panel for Universiti Malaysia Kelantan (2015 -)
- Managing Director Green Frontier Technology Sdn Bhd (2010 – 2013)
- Consultant for WPC (M) Sdn Bhd (2011- 2013) – Wood Polymer Composites
- Consultant for GC Green Sdn Bhd (2011) – Conversion to Fuel Oil and Recovery of Carbon Black and Steel Wires from Used Tyres
- Project leader: INTEL (M) Sdn Bhd (2000 – 2009) – Development of Underfill Materials for Microchips Packaging using Silica Nanoparticles and Polyurethane Modified Epoxy.
- Project Consultant for Dana Vision Sdn Bhd (a subsidiary of MMC) (1995-96) – Development of Binder System using Epoxidized Natural Rubber in Magnetic and Lapping Tapes
- Visiting Researcher: ICI Paint (M) Sdn Bhd (1994) – Development of Binders for Paints Using Epoxidized Natural Rubber

RESEARCH INTERESTS

- Energy Materials
- Polymers in electronic packaging.
- Biodegradable polymers; crystallization and melting behavior blends/composites
- Polymer colloids and solution

RESEARCH ACHIEVEMENTS

Google Scholar h-Index – 23; <https://scholar.google.com>

Graduates, Patents & Awards

- Graduated 10 PhD and 9 MSc graduates
- Patent : Use of epoxidized natural rubber in paints. PI No. 9401688, 1997, Malaysia
- Patent: High Energy Density Supercapacitors from Transition Metal Doped Titanium Dioxide nanostructures. PI No. 2014701623, Malaysia
- Silver Medal MINDEX INNOTEK 1995 – Epoxidized Natural Rubber in Paints
- Silver Medal MINDEX INNOTEK 2001 – Liquid Poly(hydroxy alkanate)s
- Gold Medal 30th International Innovation Competition 2002 Geneva Liquid poly(hydroxy alkanate)s

Recent Publications

- Radhiyah Abd Aziz, Saifful Kamaluddin Muzakir, Izan Izwan Misnon, **Jamil Ismail**, Rajan Jose. Hierarchical Mo 9 Se 11 nanoneedles on nanosheet with enhanced electrochemical properties as a battery-type electrode for asymmetric supercapacitors. *Journal of Alloys and Compounds* **673**(2016), 390-398

- R Jose, SG Krishnan, B Vidyadharan, I Misnon, M Harilal, RA Aziz, **J Ismail**, MM Yusoff. Supercapacitor electrodes delivering high energy and power densities. *Materials Today: Proceedings* **3** (2016), S48 – S56.
- Nadiah Abu, M Nadeem Akhtar, Swee Keong Yeap, Kian Lam Lim, Wan Yong Ho, Mohd Puad Abdullah, Chai Ling Ho, Abdul Rahman Omar, **Jamil Ismail**, Noorjahan Banu Alitheen. Flavokawain B induced cytotoxicity in two breast cancer cell lines, MCF-7 and MDA-MB231 and inhibited the metastatic potential of MDA-MB231 via the regulation of several tyrosine kinases In vitro. *BMC complementary and alternative medicine* **16**(2016) 86:1
- Norlaily Mohd Ali, M Nadeem Akhtar, Huynh Ky, Kian Lam Lim, Nadiah Abu, Seema Zareen, Wan Yong Ho, Han Kiat Alan-Ong, Sheau Wei Tan, Noorjahan Banu Alitheen, **Jamil bin Ismail**, Swee Keong Yeap, and Tunku Kamarul. Flavokawain derivative FLS induced G2/M arrest and apoptosis on breast cancer MCF-7 cell line. *Drug Des Devel Ther.* **10** (2016) 10: 1897–1907
- Nadiah Abu, Swee K Yeap, Ahmad Z Mat Pauzi, M Nadeem Akhtar, Nur R Zamberi, Jamil Ismail, Seema Zareen, Noorjahan B Alitheen. Dual Regulation of Cell Death and Cell Survival upon induction of cellular stress by Isopimara-7, 15-Dien-19-Oic Acid in cervical cancer, Hela cells In vitro. *Front Pharmacol.* **7** (2016) 89
- Q Wali, A Fakharuddin, A Yasin, MH Ab Rahim, **J Ismail**, R Jose. One pot synthesis of multi-functional tin oxide nanostructures for high efficiency dye-sensitized solar cells. *Journal of Alloys and Compounds* **646** (2015), 32-39
- Azhar Fakharuddin, Francesco Di Giacomo, Alessandro L Palma, Fabio Matteocci, Irfan Ahmed, Stefano Razza, Alessandra D'Epifanio, Silvia Licocchia, **Jamil Ismail**, Aldo Di Carlo, Thomas M Brown, Rajan Jose. Vertical TiO₂ Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. *ACS Nano* **9(8)** (2015), 8420-8429
- Syam G Krishnan, M.V. Reddy, Midhun Harilal, Baiju Vidyadharan, Izwan Misnon, Mohd Hasbi Ab Rahim, **Jamil Ismail**, Rajan Jose. Characterization of MbCo₂O₄ as an electrode for high performance supercapacitors. *Electrochimica Acta* **04/2015**, **161**
- B.Vidyadharan, I.I. Misnon, **J. Ismail**, M.M. Yussof, and R. Jose. High performance asymmetric supercapacitors using electrospun Copper Oxide nanowires anode. *J. of Alloys and Compounds* **633** (2015) 22 - 30.
- Irfan Ahmed, Azhar Fakharuddin, Qamar Wali, Ayib Rosdi Zainun, **J. Ismail**, and Rajan Jose. Mesoporous titania–vertical nanorod films with interfacial engineering for high performance dye-sensitized solar cells. *Nanotechnology* **26** (2015) 105401
- Baiju Vidyadharan, Panikar Sathyaseelan Archana, **J Ismail**, Mashitah M Yusoff, Rajan Jose. Improved supercapacitive charge storage in electrospun niobium doped titania nanowires. *RSC Advances* **5(62)** (2015) 50087 – 50097
- B.Vidyadharan, I.I. Misnon, R.A. Aziz, **J. Ismail**, M.M. Yussof, and R. Jose. High energy and power density asymmetric supercapacitor based on electrospun Cobalt Oxide nanowire anode. *J. of Power Sources* **270** (2014) 526 – 535.
- B.Vidyadharan, M.K. Monh Zian, I.I. Misnon, **J. Ismail**, M.M. Yussof, and R. Jose. High performance supercapacitor electrodes from electrospun Nickel Oxide nanowires. *J. of Alloys and Compounds* **610** (2014) 143 – 150.
- Q. Wali, A. Fakharuddin, I. Ahmad, M. A. R. Hasbi, **J. Ismail**, R. Jose. Multiporous tin oxidenanotubes for high performance dye-sensitized solar cells” *Journal of Materials Chemistry A* **2** (41) (2014) 17427-17434

- B. Vidyadharan, R. A. Aziz, I. I. Misnon, G. M. Anil Kumar, **J. Ismail**, M. M. Yusoff, and R. Jose. High performance NiO nanowire electrodes for supercapacitors *Journal of Power Sources* **270**(2014), 526 – 535
- S. Yaakob, M. Abu Bakar, N. H. H. Abu Bakar, M. A. Mahmud and **J. Ismail**. Immersion Plating of Cu onto N-Type Porous Silicon: From Sparsely Distributed Cubes to Closed-Packed Spheres. *Archive Des Sciences* **66** (2013) 544 – 555.
- N.H.H. Abu Bakar, M. Abu Bakar, M.M. Bettahar, S. Monteverdi and **J. Ismail**, Understanding the effect of oleic acid stabilizer on the surface properties of bimetallic PtNi particles, *J. Nanosci. Nanotech.*, **13** (2013)
- N. H. Mohd Hirmizi, M. Abu Bakar, W. L. Tan, N.H.H. Abu Bakar, **J. Ismail** and C. H. See , Electrical and Thermal Behaviour of Copper-Epoxy Nanocomposites Prepared via Aqueous to Organic Phase Transfer Technique, *J. Nanomaterials*. (2012) Article ID 219073.
- S. Yaakob, M. Abu Bakar, **J. Ismail**, N. H. H. Abu Bakar, K. Ibrahim, The formation and morphology of highly doped n-type porous silicon: Effect of short etching time at high current density and evidence of simultaneous chemical and electrochemical dissolutions. *J. Physical Science* **23** (2012) 17-31.5034-5043.
- S. Attharangsana, H. Ismail, M.A. Bakar, **J. Ismail**, Carbon Black (CB)/rice husk powder (RHP) hybrid filler-filled natural rubber composites: Effect of CB/RHP ratio on property of the composites, *Polymer –Plastics Technology and Engineering*. Volume 51, Issue 7 (2012), 655-662.
- S. Attharangsana, H. Ismail, M.A Bakar, **J. Ismail**, The Effect of Rice Husk Powder on Standard Malaysian Natural Rubber Grade L (SMR L) and Epoxidized Natural Rubber (ENR 50) Composites. *Polymer –Plastics Technology and Engineering*. Volume 51, Issue 3 (2012), 231-237..
- N.H.H. Abu Bakar, M.M. Bettahar, M. Abu Bakar, S. Monteverdi and **J. Ismail** (2010), “Low temperature activation of Pt/Ni supported MCM-41 catalysts for hydrogenation of benzene” *Journal of Molecular Catalysis A: Chemical* **333** (1-2), 11-19
- S.Y. Yeo, W.L. Tan, M. Abu Bakar and **J. Ismail** (2010), “Silver sulfide/poly(3-hydroxybutyrate) nanocomposites: Thermal stability and kinetic analysis of thermal degradation” *Polymer Degradation and Stability* (available online)
- N. H. H. Abu Bakar, **J. Ismail** and M. Abu Bakar (2010), “Silver Nanoparticles in Polyvinylpyrrolidone grafted Natural Rubber” *Reactive and Functional Polymers* **70** (2010) 168-174(**Invited for presentation at the International Conference on Environmental Security for Food and Health 2011**)
- S. Ong, **J. Ismail**, M. Abu Bakar, I. Ab. Rahman, C. S. Sipaut, C. K. Chee (2009), “Polyurethane-modified epoxy resin: solventless preparation and properties” *Journal Appl. Polym. Sc.* **Vol. 111**, 3094-3103.
- I.A. Rahman, P. Vejayakumaran, C.S. Sipaut, **J. Ismail** and C.K. Chee (2009), “Size-dependent Physicochemical and optical properties of silica nanoparticles” *Materials Chemistry and Physics* **114**, 328-332.
- N.K. Ali, M.R. Hashim, A. Abdul Aziz, H. Abu Hassan and **J. Ismail** (2009), “Formation of Porous GaAs by Pulsed Current Electrochemical Anodization: SEM, XRD, Raman and Photoluminescence Studies”, *Electrochemical and Solid-State Letters*, **12(3)** K9-K13.
- N.H.H. Abu Bakar, M.M. Bettahar, M. Abu Bakar, S. Monteverdi, **J. Ismail**, M Alnot (2009), “Pt/Ni catalysts prepared via borohydride reduction for hydrogenation of benzene” *Journal of Catalysis*, Volume **265**, Issue 1, 1 July 2009, Pages 63-71
- N.H.H. Abu Bakar, M.M. Bettahar, M. Abu Bakar, S. Monteverdi and **J. Ismail** (2009), “The effect of preparation of MCM-41 supported Pt/Ni catalysts and their hydrogenation properties” *Catal Lett* (2009) **130**:440-447 DOI 10.1007/s10562-009-9922-1

- N.H.H. Abu Bakar, M.M. BettaharM. Abu Bakar, S. Monteverdi, **J. Ismail** and M. Alnot (2009), "Silica supported Pt/Ni alloys prepared via co-precipitation method" *Journal of Molecular Catalysis A:Chemical* **Volume 308**, Issues 1-2, 4 August 2009, Pages 87-95
- Shereen Ong, **J. Ismail**, M. Abu Bakar, I.A. Rahman, C. Stephen Sipaut, Choong Kooi Chee (2008), "Nano Silica Dispersion in Epoxy: The investigation of Heat, Milling Speed and duration Effect" *Proceedings IEMT 2008, 33rd International Conference on Electronics Manufacturing and Technology, 4-6 November, Malaysia.*
- K.Y. Chew, N.H. Mohd Hirmizi, W.L. Tan, M. Abu Bakar, **J. Ismail**, L.C. Sim and Azmah (2008), "Solvent Effect on the Morphology of Copper (I) Oxide: A Fundamental Study Towards Copper (I) Oxide-Epoxy Composites" *Proceedings IEMT 2008, 33rd International Conference on Electronics Manufacturing and Technology, 4-6 November, Malaysia.*
- M. Abu Bakar, **J. Ismail**, C.H. Teoh, W. L. Tan, and S. Ong (2008), "Epoxidized Natural Rubber-Stabilized Gold Colloids Prepared in an Organic Mixture of Toluene and 2-Propanol" *J. Rubb. Res.* **(11)4**, 196-208.
- P. Vejayakumaran, I.A. Rahman, C.S. Sipaut, **J. Ismail**, and C.K. Chee (2008), "Structural and Thermal Characterizations of Silica Nanoparticles Grafted with Pendant Maleimide and Epoxides Groups" *Journal of Colloid and Interface Science*, **328**, 81-91.
- P. Vejayakumaran, I.A. Rahman, C.S. Sipaut, **J. Ismail**, and C.K. Chee (2008), "Effect of Drying Techniques on the Morphology of Silica Nanoparticles Synthesized via Sol-Gel Process" *Ceramics International*, **34**, 2059-2066.
- M. Abu Bakar, **J. Ismail**, C.H. Teoh, W.L. Tan and N.H.H. Abu Bakar (2008), "Modified Natural Rubber Induced Aqueous to Toluene Phase Transfer of Gold and Platinum Colloids", *J. Nanomaterials*, 2008, **Volume 2008** (Article ID 130295), 1-8. doi:10.1155/2008/13029
- I.A. Rahman, P. Vejayakumaran, C.S. Sipaut, **J. Ismail**, M. Abu Bakar, R. Adnan and C.K. Chee (2007), "An optimized sol-gel synthesis of stable primary equivalent silica particles", *Colloids and Surfaces*, **294**, 102-110.
- C.S. Sipaut, N. Ahmad, R. Adnan, I.A. Rahman, M. Abu Bakar, **J. Ismail**, and C.K. Chee (2007), "Properties and Morphology of Bulk Epoxy Composites Filled with Modified Fumed Silica-Epoxy Nanocomposites" *Journal of Applied Sciences*, **7**, 27-34.
- N.H.H. Abu Bakar, **J. Ismail**, and M. Abu Bakar (2007) "Synthesis and Characterization of Silver Nanoparticles in Natural Rubber" *Materials Chemistry and Physics* **104**, 276-283. **(TOP 25 Hottest Articles, July – Sept. 2007)**
- H.T. Boey, W.L. Tan, N.H.H. Abu Bakar, M. Abu Bakar and **J. Ismail** (2007), "Formation and morphology of Colloidal Chitosan-stabilized copper sulfides" *Journal of Physical Science*, **Vol. 18(1)**, 87-101.
- H. Rosniza, M.A. Bakar, S. Abdul Hamid and **J. Ismail** (2007), "Cyclopentyl trisilanol silsesquioxanes-modified natural rubber (CpSSQ(OH)₃-ENR-50) nanocomposite in the presence of tin(II) chloride dehydrate" *Indo. J. Chem.*, **7 (2)**, 111-116.
- H.L. Lee, M. Abu Bakar, **J. Ismail** and A.M. Issam (2007), "Synthesis and characterization of CdS in diol vanillin liquid crystal monomer" *Indo. J. Chem.*, **7 (2)**, 128-136.
- S.M. Tan, **J. Ismail**, C. Kummerlow, and H.W. Kammer (2006), "Crystallization and melting behaviour of blends comprising poly(3-hydroxy butyrate-co-3-hydroxy valerate) and poly(ethylene oxide)", *Journal Appl. Polym. Sc.*, **Vol.101**, 2776-2783.
- I.A. Rahman, P. Vejayakumaran, C.S. Sipaut, **J. Ismail**, M. Abu Bakar, R. Adnan and C.K. Chee (2006), "Effect of anion electrolytes on the formation of silica nanoparticles via sol-gel process", *Ceramics International*, **32**. 691-699.
- Issam A. Mohammed and **Ismail J.** (2006) "Improvement of Thermal Stability of New Heteroaromatic Poly(azomethine urethane)s", *Journal Appl. Polym. Sc.* **Vol 100**, 1198-1024.
- A.M. Issam, and **J. Ismail** (2006), "New aromatic poly(azomethine urethane)s containing o-tolidine moiety in the polymer backbone" *Design Monomers and Polymers*, **Vol.9, No.3**, 237-246.

- Shereen Ong, **Jamil Ismail**, Mohd. Abu Bakar, Ismail Ab. Rahman, Coswald Stephen Sipaut, Choong Kooi Chee (2006) "Polyurethane-modified epoxy resin: mechanical and cure properties" *Proceedings IEMT 2006, 31st International Conference on Electronics Manufacturing and Technology, 8-10 November, Malaysia*
- Lee H.K., **Ismail J.**, Bakar M.A. and Kammer H.W. (2005), "Melt reaction in blends of poly(3-hydroxybutyrate) (PHB) and epoxidized natural rubber (ENR-50)", *Journal Appl. Polym. Sc.* **Vol. 95**, 113-129. (**Scholarly Article 2008 and 2009**)
- I. Ab.Rahman, P.Vejayakumaran, **J. Ismail**, M. Abu Bakar, C. Stephen @ Nasri and C.K. Chee (2005), "The Formation of Monodispersed, Nanospherical Silica Particles By Sol-Gel Process In The Presence Of Anions As Additive", *MicroSoM*, **Vol 8**, No 1, 8-10.
- **Jamil Ismail** and Mohamad Abu Bakar (2005), "Natural Rubber – The Chemistry of A Resilient Commodity", Chapter 7, Research at Universiti Sains Malaysia, **Volume 5**, MATERIALS: From Fundamental to Applications, Ed. K.J. Ratnam, A 35th Anniversary Publication.
- C. H. Teoh, M. Abu Bakar and **J. Ismail** (2005), "The morphology of nanosized gold colloids stabilized by epoxidized natyral rubber (ENR-50)" , *Journal of Physical Science*, **Vol. 16(1)**, 35-48.
- Issam, A.M. and **Ismail, J.** (2005) "Synthesis and Characterization of non-linear optical Polyurethanes Containing Imine Group ", *Polymer Bulletin*, **52**, 255.
- Issam, A.M. and **Ismail, J.** (2005) "New Poly urethanes containing azomethinediol derived from 2,6-diaminipyridine", *Polymer Preprints* **46 (1)**, 704.
- N. H. H. Abu Bakar, **J. Ismail** and M. Abu Bakar (2005), "Synthesis and growth of silver nanocrystals in natural rubber matrix", *Journal of Physical Science*, **Vol. 16(1)**, 21-33.
- Issam A.M. and **Ismail J** (2003) "Synthesis and characterization of novel poly(azomethine urtehane)s"., *Polymer Preprints*, **44(1)**, 896-897.
- C.H. Chan, **J. Ismail**, H.W. Kammer (2004), "Melt reaction in blends of Poly(3-hydroxybutyrate-co-hydroxyvalerate) and epoxidized natural rubber", *Polymer Degradation and Stability* , **85**:947-955.
- M. Adlin, Mohamad Abu Bakar, Kong Yong Liew, **Jamil Ismail** (2004), "Synthesis of chitosan stabilized platinum and palladium nanoparticles and their hydrogenation activity", *J Molecular Catal.*, **212**, 141-149.
- N.H.H. Abu Bakar, **J. Ismail** and M. Abu Bakar (2004), "Silver Nanoclusters and Nanofractals in Natural Rubber Matrix", *MicroSom.*, **Vol 7**, No 1, 14-17.

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- Yam W.Y., **Ismail J.**, Kammer H.W., Lechner M.D., and Kummerlowe C (2000) "Thermal Properties of Poly(styrene-block- ϵ -caprolactone) in Blends with Poly(vinyl methyl ether)", *Polymer*, **4**:9073
- Chee M.J.K., **Ismail J.**, Kammer H.W., Kummerlowe C (2002), "Solution viscosity study on miscibility of poly(hydroxy butyrate) in blends with poly(ϵ -caprolactone) and poly(ethylene oxide)", *Polymer*, **43**: 1235-1239.
- Majid M.I.A., **Ismail J.**, Few L.L. and Tan C.F. (2002), "Degradation of Poly(hydroxybutyrate)", *European Polymer Journal*, **38**, 837-839.
- Issam A.M. and **Ismail J** (2003) "Synthesis and characterization of novel poly(azomethine urtehane)s"., *Polymer Preprints*, **44(1)**, 896-897.

Books/ Monographs

- **Jamil Ismail**, Mat Zakaria & Zol Azlan Hj Hamidin (1991) *Prinsip Kimia Polimer*, xv+673 pp. Kuala Lumpur: Dewan Bahasa dan Pustaka (DBP). ISBN 983-62-1909-9, KK 540-4932-4101. Terjemahan daripada karya asal [Translation from the original book by] P.J. Flory. 1953. *Principles of Polymer Chemistry*, xvi+672 pp. Ithaca: Cornell University Press.

- **Jamil Ismail** and Mohamad Abu Bakar (2005), "Natural Rubber – The Chemistry of A Resilient Commodity", Chapter 7, Research at Universiti Sains Malaysia, **Volume 5**, MATERIALS: From Fundamental to Applications, Ed. K.J. Ratnam, A 35th Anniversary Publication.
- **Jamil Ismail** (2008) " Mengenali Secara Dekat Getah Asli Terepokside" Siri Syarahan Umum, Penerbit Universiti Sains Malaysia, 2008.

Conferences

1. Chong K.F., **Ismail J.** and Kammer H.W. (2000), "Non-isothermal crystallization of poly(butylenes succinate)", Proceedings of Europolymer Conference (EUPOC 2000) on Crystallization of Polymers, Gargnano, Italy.
2. Chee M.J.K., **Ismail J.**, Kummerlowe C., and Kammer H.W. (2002), "Study on miscibility of PEO and PCL in blends with PHB by solution viscometry", Proceedings 7th European Symposium on Polymer Blends, May 2002, Lyon-Villeurbanne, France.
3. Tan S.M., **Ismail J.**, Kammer H.W., and Kummerlowe, C. (2002), "Polymer blends comprising poly(3-hydroxy butyrate-co-3-hydroxy valerate) and poly(ethylene oxide): Thermal properties and crystallization", Proceedings 7th European Symposium on Polymer Blends, May 2002, Lyon-Villeurbanne, France.
4. C.H. Chan, **J. Ismail**, H.W. Kammer (2003), "Melt reaction in polymer blends comprising PHBV and ENR", Abstract (SL15), 42nd Microsymposium of Prague Meetings on *Macromolecules - Degradation, Stabilization and Recycling of Polymers*, July 14 –17.
5. **Ismail J.**, Lee H.K., Bakar M.A. and Kammer H.W. (2003), "Melt reaction in PHB and Epoxidized natural rubber blends" Abstract 9th International Seminar on Elastomers, Kyoto Japan, April 2-4.
6. Chee M.J.K., **Ismail J.**, Kummerlowe C., and Kammer H.W. (2003), "The conformational structure of poly(3-hydroxybutyrate), PHB, molecules in dilute solutions", Proceedings of Conference on Advanced Materials, Putrajaya Malaysia, May 20 –21.
7. N.H.H. Abu Bakar, **J. Ismail**, M.A Bakar (2004), "Formation of silver nanoparticles in natural rubber matrix" *Proceedings International Conference and Exhibition "Macromolecular Science and Its Impact on Industries Malaysian Chemical Congress* , 27-29 September 2004, Malaysia.
8. Guat S.L., **Ismail J.** , Kammer H.W. and Kummerlowe C. (2004), "Polymer Composites Comprising Hydroxapatite Whiskers in Poly(3-hydroxybutyrate)" *Proceedings International Conference and Exhibition "Macromolecular Science and Its Impact on Industries Malaysian Chemical Congress* , 27-29 September 2004, Malaysia.
9. Lee H.K., **J. Ismail**, M.A Bakar (2004), "Reactive blends of Poly(3-hydroxybutyrate) and Epoxidized Natural Rubber" *Presented at the International Conference and Exhibition "Macromolecular Science and Its Impact on Industries Malaysian Chemical Congress* , 27-29 September 2004, Malaysia.
10. I.A. Rahman, P. Vejayakumaran, **J. Ismail**, C.S. Sipaut, M. Abu Bakar, R. Adnan, Shereen Ong and C.K. Chee, "Production of Monodispersed, Narrow Distributed & Surface Activated Nano Scale Silica Particles as Potential Fillers for Underfill (UF) Materials", *2005 Intel Asia Academic Forum*, Shanghai, China, 24-26 October 2005.
11. Shereen Ong, **J. Ismail**, M. Abu Bakar, I.A. Rahman, C.S. Sipaut, and C.K. Chee, 'Polyurethane-modified epoxy resin: cure, mechanical, and nanosilica dispersion properties' *Asia Academic Forum 13-15 November 2006, Malaysia*
12. H.K. Lee, **J. Ismail** and M. Abu Bakar, "Thermal Properties of Reactive PHB/ENR-50 Blends", Book of Abstract International Conference on Chemical Sciences (ICCS-2007), Yogyakarta, Indonesia, 24-26 May 2007., pg152.
13. H. Rosniza, M.A. Bakar, S. Abdul Hamid and **J. Ismail**, "Cyclopentyl trisilanol silsesquioxanes-modified natural rubber (CpSSQ(OH)3-ENR-50) nanocomposite in the presence of tin(II) chloride dehydrate" Book of Abstract International Conference on Chemical Sciences (ICCS-2007), Yogyakarta, Indonesia, 24-26 May 2007., pg133.

14. I.A. Rahman, P. Vejayakumaran, C.S. Sipaut, **J. Ismail** and C.K. Chee, "Curing behavior of bismaleimide-diamine thermoset in the presence of peroxide" Book of Abstract International Conference on Chemical Sciences (ICCS-2007), Yogyakarta, Indonesia, 24-26 May 2007., pg124.
15. S.Y. Yeo, M. Abu Bakar and **J. Ismail**, "Silver-poly(3-hydroxybutyrate) (Ag-PHB) nanocomposites", Book of Abstract International Conference on Chemical Sciences (ICCS-2007), Yogyakarta, Indonesia, 24-26 May 2007., pg107
16. Shereen Ong, **Jamil Ismail**, Mohd Abu Bakar, Ismail Ab. Rahman, and Choong Kooi, "Nano silica dispersion in epoxy: mechanical stirring with ball media", Book of Abstract International Conference on Chemical Sciences (ICCS-2007), Yogyakarta, Indonesia, 24-26 May 2007, pg105.
17. Shereen Ong, **Jamil Ismail**, Mohd Abu Bakar, Ismail Ab. Rahman, Coswald Stephen Sipaut, Choong Kooi, "Investigation of the temperature, speed and duration effect on nano silica dispersion by zirconia ball media", *Book of Abstracts 12th Asian Chemical Congress (12ACC)*, Kuala Lumpur, pg 389.
18. I.A. Rahman, P. Vejayakumaran, C.S. Sipaut, **J. Ismail**, M Abu Bakar and C.K. Chee, "Effect of particle size on the properties of nano silica particles synthesized via sol-gel process", *Book of Abstracts 12th Asian Chemical Congress (12ACC)*, Kuala Lumpur, pg 390.
19. N.H.H. Abu Bakar, M.M. Bettahar, M.A Bakar, S. Monteverdi, **J. Ismail**, "Hydrogenation of benzene over silica supported Pt/Ni catalysts prepared via co-impregnation technique", *Book of Abstracts 12th Asian Chemical Congress (12ACC)*, Kuala Lumpur, pg 378.
20. H.K. Lee, **J. Ismail** and M Abu Bakar, "Reactive PHB/ENR-50 blends: miscibility, crystallization and melting behaviour", *Book of Abstracts 12th Asian Chemical Congress (12ACC)* Kuala Lumpur, pg 374.
21. Shereen Ong, **J. Ismail**, M. Abu Bakar, I.A. Rahman, C.S. Sipaut, and C.K. Chee, "Alternative underfill systems: synthesis and characterization" *Intel Asia Academic Forum 2007*, October 24-26 New Delhi India
22. H. Rosniza, M. Abu Bakar, S. Abdul Hamid and **J. Ismail**, "The Structural and Thermal Studies of Oxirane Ring Opening Reactions in Epoxidized Natural Rubber (ENR-50) Catalyzed by Tin (II) Chloride Dihydrate: A Potential Enroute to a Hybridized ENR/SnO Composite" 1st Nanothailand Symposium (NTS 2008), Bangkok, Thailand, 6-8 November 2008
23. 9) W.L. Tan, S.S. Lee, M. Abu Bakar and **J. Ismail**, "The Dependence of Size, Size Distribution, Shape and Purity of Nickel Oxide Nanoparticles on the Precursors and Preparative Experimental Parameters" 1st Nanothailand Symposium (NTS 2008), Bangkok, Thailand, 6-8 November 2008
24. 11) S. Yaakob, **J. Ismail**, M. Abu Bakar, and K. Ibrahim, "Cu formation on Porous Silicon: Preparation and Characterization" Nano-Thailand Symposium (NST 2008), Bangkok, Thailand, 6-8 November 2008
25. 12) N. H. H. Abu Bakar, **J. Ismail**, M. Abu Bakar, S. Yaakob, "Poly(vinylpyrrolidone)-g-Natural Rubber/Silver Nanocomposite as Potential Conductive Adhesive", Nanothailand Symposium (NST 2008), Bangkok, Thailand, 6-8 November 2008

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