

DR. SITI ZAFIRAH BINTI ZAINAL ABIDIN



Name :	Siti Zafirah Binti Zainal Abidin
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Research Field :	Solid State Ionics, Polymer Electrolyte & Advanced Materials

NATIONAL LEVEL RESEARCH COMMITTEE

	Name of Research Committee	Hosting Secretariat	Year Involved
1	Electroactive Material Society	Member	2013 – Now
2	Asia Pacific Network for Sustainable Agriculture, Food and Energy (SAFE Network)	Member	2017 – 2021

RESEARCH FUNDINGS

	Research Project	Source	Total Funds (RM)	Begin Year	End Year
1	PROJECT LEADER Biopolymer Electrolyte Based On Chitosan : Agarose And 1-Ethyl-3-Methylimidazolium Acetate Ionic Liquid	GIP (UiTM)	20,000	2018	2019

	Impregnated With Lithium Bis(Oxolato) Borate				
2	MEMBER Electron Transport Mechanism of Graphene-Zinc Oxide Semiconductor In Electron Injection of Dye-Sensitized Solar Cells. 600-RMI/FRGS 5/3 (86/2015)	FRGS	108,200	2015	2108

POSTGRADUATE SUPERVISION

	Students Name	Institutions	Year Enrolled
1	Muhammad Syahir Bin Sak Ari (Master in Science by Research) Title: Biopolymer electrolyte based on agarose and 1-Ethyl-3-methylimidazolium acetate ionic liquid for lithium battery.	FSG, UiTM Shah Alam	2018

PUBLICATIONS (*Only those indexed in IEEE/ISI/SCOPUS*)

1. **Abidin, S. Z. Z.**, Ali, A. M. M., Hassan, O. H., & Yahya, M. Z. A. (2013). Electrochemical studies on cellulose acetate–LiBOB polymer gel electrolytes. *International Journal of Electrochemical Science*, vol. 8, pp. 7320–7326.
2. **Abidin, S. Z. Z.**, Taib, M. F. M., Kudin, T. I. T., Ali, A. M. M., Hassan, O. H., & Yahaya, M. Z. A. (2013). Electrochemical studies of composited cellulose polymer gel electrolytes for Lithium–Air cells. *International Journal of Electroactive Materials*, vol. 1, pp. 36–42.
3. **Abidin, S. Z. Z.**, Yahya, M. Z. A., Hassan, O. H., & Ali, A. M. M. (2014). Conduction mechanism of lithium bis(oxalate)borate-cellulose acetate polymer gel electrolytes. *Ionics*, vol. 20, issue 12, pp. 1671–1680.
4. **Abidin, S. Z. Z.**, Ali A. M. M., Jaafar N. K., Yahya M. Z. A. (2017). Electrical Properties of Cellulose Acetate-Based Polymer Gel Electrolytes. *AIP Conference Proceedings*, vol. 1885, pp. 020088-1 – 020088-6.
5. **Abidin, S. Z. Z.**, Sak Ari M. S., Navaratnam S., Jaafar N. K., Yahya M. Z. A., Ionic Conduction Mechanism of Potato Starch–Based Biopolymer Electrolytes Complexed With Potassium Hydroxide. **Will be published at AIP Conference Proceedings.**

CONFERENCES PRESENTATION

Type	Event	Year
Poster	Abidin, S. Z. Z. , Ali, A. M. M., Hassan, O. H., & Yahya, M. Z. A. Electrochemical Studies on Cellulose Acetate–LiBOB Polymer Gel Electrolytes. 8 th Asian–Australasian Conference on Composite Materials (ACCM-8) in Kuala Lumpur, Malaysia.	November 2012
Oral	Abidin, S. Z. Z. , Ali, A. M. M., Hassan, O. H., & Yahya, M. Z. A. Ion–Solvent–Polymer Interactions in LiBOB:γ-Butyrolactone:Cellulose Acetate Electrolyte System. 21 st International Conference on Polymer Characterization - World Forum on Advanced Materials (PolyChar-21) in Gwangju, South Korea.	March 2013
Poster	Abidin, S. Z. Z. , Saaïd, S. I. Y., Kudin, T. I. T., Ali, A. M. M., Hassan, O. H., & Yahya, M. Z. A. Investigations on Nanocomposite Polymer Gel Electrolyte. 6 th International Symposium on Functional Materials (ISFM-6) in Singapore.	August 2014
Oral	Omar, A., Abidin, S. Z. Z. , Kamisan, A. S., Ali, A. M. M., Yahya, M. Z. A. Ionic Conductivity Studies on Magnesium-Based Cellulose Acetate Polymer Gel Electrolytes. 2 nd International Conference on Science and Social Research (CSSR) in Shah Alam, Selangor, Malaysia.	October 2015
Oral	Abidin, S. Z. Z. , Ali A. M. M., Jaafar N. K., Yahya M. Z. A., Electrical Properties of Cellulose Acetate-Based Polymer Gel Electrolytes. The 3rd International Conference on Green Design and Manufacture in Krabi, Thailand.	April 2017
Oral	Abidin, S. Z. Z. , Sak Ari M. S., Navaratnam S., Jaafar N. K., Yahya M. Z. A., Ionic Conduction Mechanism of Potato Starch–Based Biopolymer Electrolytes Complexed With Potassium Hydroxide. The 4th International Conference on Green Design and Manufacture in Ho Chi Minh City, Vietnam.	April 2018

AWARDS

1. Best Poster Award for Poster Presentation, titled “Electrochemical Studies on Cellulose Acetate–LiBOB Polymer Gel Electrolytes”, by **S. Z. Z. Abidin**, A. M. M. Ali, O. H. Hassan, M. Z. A. Yahya, at the **8th Asian–Australasian Conference on Composite Materials (ACCM-8)** in Kuala Lumpur, Malaysia on 6–8 November 2012.
2. **Silver Medal** for the invention/innovation of “Green Composite Cellulose Acetate Polymer Electrolytes (CAPE) for Application in Electrochemical Devices”. **Invention & Innovation Awards 2014, Malaysia Technology Expo 2014** on 20–22 February 2014 at Kuala Lumpur, Malaysia.
3. **ITEX Gold Medal** for the invention of “Green Composite Cellulose Acetate Polymer Electrolytes (G-CAPE) for Lithium Batteries”. **25th International Invention, Innovation & Technology Exhibition (ITEX 2014)** on 8–10 May 2014 at Kuala Lumpur, Malaysia.
4. **Gold Medal for IIDEX 2017**, with project title of “Nanocomposite Polymer Gel Electrolyte for Lithium Battery” on 25–29 September 2017 at DATC, Universiti Teknologi MARA, Shah Alam, Selangor.
5. **Gold Medal for IIDEX 2018**, with project title of “G–Biopoly Storage” on 24–28 September 2018 at DATC, Universiti Teknologi MARA, Shah Alam, Selangor.