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B.Sc. (Malaya), PhD (Malaya), CEng (MIMechE)
Associate Professor in Materials Engineering Program
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EDUCATION

Jul 93 – July 95: Centre of Foundation Studies in Sciences (Asasi), Universiti Malaya.
Jul 95 – Aug 99: B.Sc. Hons, Physics, Physics Department, Universiti Malaya. Final Year Project Title: *“Classification of Sunspot and Eclipse”*
Jan 01 – Aug 04: Ph.D., Advanced Materials, Physics Department, Universiti Malaya. Title: *“Characterisation of Alkaline Solid Polymer Electrolyte For Nickel-Metal Hydride, Metal Hydride-Air and Nickel-Zinc Cells”*.

EXPERIENCE

Apr 04 – Nov 04: Lecturer, Dept. Science & Mathematic, College of Engineering, Universiti Tenaga Nasional.
Dec 04 – Jul 07: Lecturer, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia.
Oct 07 – Mar 10: Senior Lecturer, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia.
Apr 10 – present: Associate Professor, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia.

SPECIALIZATION

Energy Materials

CURRENT RESEARCH INTERESTS

Batteries, Corrosion, Solders, Metal-oxide nanoparticle

EDITORIAL

Co Editor-in-Chief for International Journal of Electroactive Materials (e-ISSN: 2289-8360)

SOCIETY MEMBERSHIPS

Chartered Engineer (CEng), Member of Institution of Mechanical Engineers, UK.
Vice Chairman, Electroactive Materials Society, 2013-present.
Member, Electrochemical Society, USA, Membership no: ECS323962, 2005-present.
Life Member, Malaysian Solid State Science & Technology Society (MASS), Malaysia, since 2007.

ACADEMIC AWARDS

Sanggar Sanjung Award 2005-2012, Publication Category, Universiti Sains Malaysia.
Excellent Service Awards 2008, Universiti Sains Malaysia.

TEACHING

Undergraduate, B. Eng. (Hons)

Lecture

- EBB 113/3: Materials Engineering
- EBB 202/3: Crystallography and Bonding in Solid
- EBB 316/3: Corrosion and Degradation
- EBB 324/4: Advanced Materials and Composites
- EBB 405/3: Non-Destructive Testing and Failure Analysis

Mixed-Mode, MSc.

- EBB552/3: Corrosion and Protection

Laboratory

- EBS 110/2: Engineering Drawing
- EBB 154/2: Materials Laboratory
- EBB 155/2: Engineering Materials Introduction Laboratory
- EBB 250/2: Computer Method for Engineer
- EBB 204/2: Properties of Materials Laboratory
- EBB 325/2: Microscopy Laboratory
- EBB 317/2: Materials Processing Laboratory

TRAINING

1. Outcome Based Education (OBE) Workshop, Organized by School of Material and Mineral Resources Engineering, Universiti Sains Malaysia (USM), Paradise Sandy Beach Resort, Penang, 17-19 Mac 2006.
2. SolidWorks Advanced Course in SolidWorks 2005, Organized by IME CAD/CAM Training Centre Sdn Bhd, 27-29 Jun 2006.
3. Cooperative Based Learning (CBL) Workshop, Organized by Engineering Campus, Universiti Sains Malaysia (USM), Teluk Dalam, Pulau Pangkor, Perak, 20 Jun 2007.
4. The EAC Lead Trainer Course, Organized by Engineering Accreditation Council (EAC), Equatorial Hotel, Penang, 15-17 Dec 2007.
5. Technical Problem Solving, Organized by School of Material and Mineral Resources Engineering, Universiti Sains Malaysia (USM) and Institute of Materials Malaysia (North Region), 28 Jan 2008.
6. Outcome Based Education (OBE) Assessment Workshop, Organized by School of Chemical Engineering, Universiti Sains Malaysia (USM), 13-14 Jul 2011.
7. Impedance Spectroscopy School Asian Edition 2012, Organized Hanyang University, Seoul, Korea. 17-18 Jul 2012.

RESEARCH GRANTS

Incentive

1. Ahmad Azmin Mohamad, USM Incentive Grant, 15 April 2005.
2. Ahmad Azmin Mohamad, USM Incentive Grant (Student), Jan 2009.

Short Term Grant

3. Ahmad Azmin Mohamad and Azizan Aziz, "Development of Zn-MnO₂ Battery Using Chitosan Polymer Electrolytes", USM Short Term Grant, 15 Jun 2005– 14 Jun 2007.
4. Ahmad Azmin Mohamad, "Preparation and Characterization of Proton Batteries Based on Hydroponics Gel Electrolytes", USM Short Term Grant, 15 March 2007– 14 March 2009.
5. Ahmad Azmin Mohamad and Habsah Haliman, "The Electrochemical Properties and Failure Analysis of Aluminium-air Batteries", USM Short Term Grant, 01 May 2008 – 30 April 2010.
6. Ahmad Azmin Mohamad and Habsah Haliman, "Development of Gel Polymer Electrolytes for Polymer Solar Cells", USM Short Term Grant, 01 Nov 2009 – 30 Oct 2011.

7. Ahmad Azmin Mohamad and Habsah Haliman, "Air-cathode as Cathode Electrode in Synthesis of Oxide Film", USM Short Term Grant, Mac 2011 – Feb 2013.
8. Habsah Haliman and Ahmad Azmin Mohamad, Studies of Alkaline Solid Polymer Electrolytes for Zinc Manganese Batteries at Elevated Temperature, USM Short Term Grant, Dec 2009 – Nov 2011.
9. Habsah Haliman and Ahmad Azmin Mohamad, Study of intermetallic compound $\text{Sn}_{96.5}\text{Ag}_{3.0}\text{Cu}_{0.5}$ alloy under corrosion effect, USM Short Term Grant, Mac 2011 – Feb 2013.

FRGS

10. Ahmad Azmin Mohamad and Zu Azhan Yahya (UiTM), "Electrochemical Properties of Zinc-Air Battery Based on Hydroponics Gel Polymer Electrolyte", FRGS Grant, 15 Jan 2007– 14 Jan 2009.
11. Ahmad Azmin Mohamad, Zainal Arifin Ahmad, Mohd Asri Mat Teridi (UKM) and Oskar Hasdinor Hassan (UiTM), First Principles Density Functional Theory Calculations on Zinc Oxide Growth Mechanism, Dec 2012 – Nov 2015.

Research University

12. Ahmad Azmin Mohamad, Zainal Arifin Ahmad and Mohd Ali Sulaiman (AMREC), "Alkaline Fuel Cells", Research University (Fundamental Project), Jan 2009 – Dec 2011.
13. Ahmad Azmin Mohamad, Projjal, "Development of Sn-9Zn-based Solder Alloy with High Corrosion Resistance to Alkaline Electrolyte, Research University, Jan 2010 – Dec 2012.

Science Fund

14. Ahmad Azmin Mohamad, Mohd Ali Sulaiman (AMREC) and Ahmad Badri Ismail, "Development of Zn Anode for Zinc-air Batteries", 305.PBAHAN.6013367 (03-01-05-SF0411), RM 185, 500.00, 01 May 2008 – 30 April 2010.
15. Ahmad Badri Ismail (Leader) and Ahmad Azmin Mohamad, "Lead Free Solder Paste for Electronic Applications", Science Fund, Sept 2007-Aug 2009.
16. Yatimah Alias (Leader, UM), Zaharah Aiyub (UM) and Ahmad Azmin Mohamad, "Synthesis, structural and electrochemical studies of supramolecular arrays based on organic ions: *p*-sulfonato-calix[n]arenes and phosphonium cations", Science Fund, Aug 2007 – July 2010.
17. Ahmad Azmin Mohamad, Anasyida Abu Seman and Yatimah Alias, "Porous LiFePO_4 Cathode Materials for Aqueous Rechargeable Lithium-Ion Battery", 305/PBAHAN/6013390 (03-01-05-SF0621), Jun 2013 – Jun 2015.

ERGS

18. Ahmad Azmin Mohamad, Zukifli Mohamad Ariff, "Investigation of Chitosan- NH_4NO_3 -EC-GA Membranes for Proton Batteries Application", 15 August 2011 – 14 August 2013.

International

19. Ahmad Azmin Mohamad (Leader), Zukifli Mohamad Ariff, "Study of Corrosion Activities using Conductive Paint in Malaysian Seawater", ExxonMobil, Nov 2009- Oct 2011.
20. Zainal Arifin Ahmad (Leader), Sunara Parwadaria, Ahmad Azmin Mohamad, "Tin Alloy Plating For Automotive and Electronic Applications", USM, MSC and the Tin Board, ITRI (UK) June 2005- May 2007.

RESEARCH STUDENTS

Undergraduate Final Year Project, B. Eng. (Hons)

1. Fatiah Noor Tahiran, Characterization of Plasticized Polyethylene Oxide Polymer Electrolyte for Zinc-Manganese Dioxide Cells, 2005/06.
2. Lee Yee Wah, Fabrication of Zinc-Carbon Batteries Based on Polymer Gel Hydroponics and ZnCl_2 , 2005/06.
3. Ng Li Sian, Fabrication and Characterization of Proton Battery based on Chitosan Solid State Polymer Electrolyte, 2005/06.
4. Nurfaezah Khamis, Fabrication and Characterization of Zn-O_2 Batteries Based on Polymer Gel Electrolytes Hydroponic and KOH, 2005/06.
5. Sahlina Mat Nor, Fabrication and Characterization of Zinc-Air Batteries Based on Polyacrylamide Polymer Electrolyte, 2005/06.

6. Yap Soo Chin, Fabrication and Characterization of Proton Battery Based on Hydroponic Polymer Gel Electrolytes, 2005/06.
7. Chee Siew Mian, Preparation and Electrochemical Characterization of Proton Battery Based on Chitosan and $\text{CH}_3\text{COONH}_4$ Electrolytes, 2006/07.
8. Lau Chian Chuan, Preparation and Electrochemical Characterization of Zinc-Carbon Battery Based on Gel Electrolytes, 2006/07.
9. Mohamad Najmi Masri, Preparation and Physical Characterization of Conductive Paint Coating, 2006/07.
10. Tham Yee Len, Preparation and Electrochemical Characterization of Zinc-Carbon Battery Based on Natural Rubber Solid State Electrolytes, 2006/07.
11. Zulzulazizi Mohd Yunus, Paint Coating Failure Analysis Using Electrochemical Method, 2006/07.
12. Aliyah Jamaludin, Preparation and Electrochemical Characterization of Proton Battery Based on Chitosan Gel and NH_4NO_3 Electrolytes, 2007/08.
13. Khor Gaik Hooi, Preparation and Electrochemical Characterization of Proton Battery Based on Agar Gel and $\text{CH}_3\text{COONH}_4$ Electrolyte, 2007/08.
14. Muhamad Firdaus Mohd Hazeri, Conductive Paint coating Using Waste Cathode Materials, 2007/08.
15. Ng Pao Ling, Alkaline Fuel Cell Based on Gel Polymer Electrolyte, 2007/08.
16. Tan Shen Mei, Structure Formation of Zinc Oxide by Potassium Hydroxide Electrolyte- H_2O -Poly (acrylic-acid) for Zinc-air system, 2007/08.
17. Tan Sui Ying, Effects of flux on Bi-In-Zn Solder Wettability at Low Temperature, 2007/08.
18. Yap Choy Kuen, Preparation and Characterization of Zinc Oxide Using KOH and KOH + ZnO Electrolyte via Zinc-Air System, 2007/08.
19. Khoo Li Jian, Synthesis and Characterization of Zinc Oxide Powder Via Sol-gel Route for Quasi-State Solar Cells, 2008/09.
20. Tan Ann Ling, Gel Polymer Electrolytes Based on Poly(Acrylic Acid), Sodium Iodide and Iodine for Quasi-Solid Solar Cells, 2008/09.
21. Ng Chai Yan, Zinc-air Batteries Employing Tapioca Binder in Porous Zinc Anode, 2008/09.
22. Rosmazila Binti Baharudin, Corrosion Behavior of Sn-9Zn Solder in 6.0 M KOH Electrolytes, 2008/09.
23. Yanny Marlina Baba Ismail, Measuring Solid Gel Polymer Electrolyte Properties Based on Hydroponics Gel for Zn- MnO_2 Alkaline Batteries, 2008/09.
24. Muhammad Ghaddafy Affendy, Corrosion Activities of Zinc Anodes in Sago Gel 6 M Potassium Hydroxide Electrolytes, 2009/10.
25. Koo Li Ann, Chitosan Macroporous Chitosan-Ammonium Acetate Membrane for Proton Batteries, 2009/10.
26. Khalidah Mohamad Fadzil, Zinc-air Battery with Sago Gel Electrolyte and Porous Zinc Anode, 2009/10.
27. Siti Nabihah Othman, Conductivity Study of Salt Bridge Based Chitosan Acetate-waste water for Microbial Fuel Cell Application, 2009/10.
28. Liew Mui Chee, Potentiodynamic Polarization of Sn-3.0Ag-0.5Cu Solders Alloy in Potassium Hydroxide Solution, 2010/11.
29. Ibrahim Ahmad, Open Circuit Potential of Sn-3.0Ag-0.5Cu Solders Alloy in Potassium Hydroxide Solution, 2010/11.
30. Awangko Saiful As'ad Awangko Sa'adenan, Electropolymerization of PANi on Mild Steel and Epoxy-Cathode Waste Materials Coated Mild Steel for Improvement of Paint Coating, 2010/11.
31. Kausar Harun, Effect of Corrosion on Tensile Properties of Cu/SAC305/Cu Butt Joint, 2010/11.
32. Lee Yu Ren, Corrosion Activity of Mild Steel in Concrete in Malaysia Seawater, 2010/11.
33. See Chiun Wern, Effect of Corrosion on Thermal Property of Sn-3.0Ag-0.5Cu (SAC305) Solder Alloy, 2012/13.
34. Muhammad Syafiq Hassan, The First Principle Calculation on Zinc Oxide Synthesized by Zinc-air Battery System, 2012/13.
35. Siti Aisyah Muhamad, First Principle Calculation of TiO_2 nanoparticle, 2013/14.
36. Chuah York Keen, The Effect of Calcination Time on The Electrochemical Performance of LiFePO_4/C in Aqueous Electrolyte, 2013/14.

Master of Science, M.Sc. (Mix-Mode)

1. Ng Li Sian, *Proton battery based on plasticized chitosan-NH₄NO₃ solid polymer electrolyte at higher temperatures*, 2007 (Supervisor: Dr. Ahmad Azmin Mohamad).
2. Mohamad Najmi Masri, *Sago-based Gel Polymer Electrolytes Zn-Air battery*, 2008 (Supervisor: Dr. Ahmad Azmin Mohamad).
3. Muhamad Firdaus Mohd Nazeri, *Corrosion of Sn-Zn Lead Free Solders*, 2009 (Supervisor: Dr. Ahmad Azmin Mohamad).
4. Mohd Shahadan Mohd Suan, *Corrosion of Conductive Paint Coating*, 2009 (Supervisor: Dr. Ahmad Azmin Mohamad).

Master of Science, M.Sc. (Research)

Main Supervisor

1. Aliyah Jamaludin, *The Study on The Performance and Compatibility of Sago As Gel Polymer Electrolyte In Direct Borohydride Fuel Cell*, 2008-10. (Main Supervisor: Dr. Ahmad Azmin Mohamad, Co-supervisor: Prof. Dr. Zainal Ariffin Ahmad).
2. Siti Salwa Alias, *Polymer Solar Cells based on ZnO electrode*, 2008-10. (Main Supervisor: Dr. Ahmad Azmin Mohamad, Co-supervisor: Mr. Ahmad Badri Ismail).
3. Tan Wee Ching, *Synthesis of ZnO for Polymer Solar Cells*, 2008-10. (Main Supervisor: Dr. Ahmad Azmin Mohamad, Co-supervisor: Mr. Ahmad Badri Ismail).
4. Jeremy Koh Chee Hao, *Synthesis of TiO₂ for Polymer Solar Cells*, 2008-10. (Main Supervisor: Dr. Ahmad Azmin Mohamad, Co-supervisor: Prof. Dr. Zainal Ariffin Ahmad).
5. Lee Lui Mei, *Corrosion of Sn-Ag-Cu Alloys*, 2010-13. (Main Supervisor: Dr. Ahmad Azmin Mohamad).
6. Muhammad Ghaddafy Affendy, *Corrosion of Sn-9Zn alloy*, 2011-13. (Main Supervisor: Dr. Ahmad Azmin Mohamad).
7. Nurhaswani Alias, *Synthesis and Electrochemical Behavior of LiFePO₄/C with an Air-electrode in an Aqueous Lithium Ion Battery*, 2013-14. (Main Supervisor: Dr. Ahmad Azmin Mohamad).

Doctor of Philosophy, PhD.

Main Supervisor

1. Mohamad Najmi Masri, *The Study of Agar Binder and Super P Additive in Porous Zinc Anode For Zinc-air Batteries*, 2008-2014 (Main Supervisor: Dr. Ahmad Azmin Mohamad, Co-supervisor: Azizan Aziz).
2. Muhamad Firdaus Mohd Hazeri, *Corrosion of Sn-Zn Lead Free Solders*, 2010-2014 (Supervisor: Ahmad Azmin Mohamad, Co-supervisor: Ahmad Badri Ismail).
3. Siti Salwa Alias, *Chitosan Membrane for Proton Batteries*, 2012-15. (Main Supervisor: Ahmad Azmin Mohamad, Co-supervisor: Zulkiflii Mohamad Ariff).
4. Muhamad Zamri Yahaya, *Composite Solders*, 2014-17. (Main Supervisor: Ahmad Azmin Mohamad, Co-supervisor: Mohd Zulkifly Abdullah).
5. Nur Azilina Binti Abdul Aziz, *Electrochemical Behavior of LiCoO₂ as Positive Electrode for Aqueous Rechargeable Lithium Ion Battery*, 2014-17. (Main Supervisor: Ahmad Azmin Mohamad, Co-supervisor: Tuti Katrina Abdullah).

Co-supervisor

1. Norziana Solehuddin, *Solid State Zinc-Carbon Battery*, 2007-2009 (Main Supervisor: Yatimah Alias (UM), Co-supervisor: Ahmad Azmin Mohamad).
2. Noor Azam, *Ceramic Coating*, 2005-2008, (Main Supervisor: Zainal Ariffin Ahmad, Co-supervisor: Sunara Purdawara, Ahmad Azmin Mohamad).

PUBLICATIONS

Google Scholar: scholar.google.com/citations?user=ii2pcuMAAAAJ

Research ID: C-6269-2009

Scopus ID: 35605414700

Books

1. Aliyah Jamaludin and A.A. Mohamad, Gel Polymer Electrolyte for Direct Borohydride Fuel Cell, Lambert Academic Publishing, Germany, 2010, ISN 978-3-8454-7111-2.
2. Siti Salwa Alias and Ahmad Azmin Mohamad, Synthesis of Zinc Oxide by Sol–Gel Method for Photoelectrochemical Cells, *SpringerBrief*, Springer, 2014.

Refereed Papers

1. A.A. Mohamad, N.S. Mohamed, Y. Alias, A.K. Arof, *Studies of alkaline solid polymer electrolyte and mechanically alloyed polycrystalline Mg₂Ni for use in nickel-metal hydride batteries*, Journal of Alloys and Compounds 337 (2002) 208-213.
2. A.A. Mohamad, N.S. Mohamed, M.Z.A. Yahya, R. Othman, S. Ramesh, Y. Alias, A.K. Arof, *Ionic conductivity studies of poly(vinyl alcohol) alkaline solid polymer electrolyte and its use in nickel-zinc cells*, Solid State Ionics 156 (2003) 171-177.
3. A.A. Mohamad, N.S. Mohamed, Y. Alias, A.K. Arof, *Mechanical alloy Mg₂Ni for metal hydride-air secondary battery*, Journal of Power Sources 115 (2003) 161-166.
4. A.A. Mohamad, Y. Alias, A.K. Arof, *Mg₂Ni hydrogen storage alloys for metal hydride-air cell*, Journal of New Materials and Electrochemical Systems 6 (2003) 205-210.
5. A.A. Mohamad, *Degradation in Polymer Ni-MH Battery*, Ionics 11 (2005) 294-300.
6. F. F. Hatta, M. Z. A. Yahya, A. M. M. Ali, R. H. Y. Subban, M. K. Harun, A. A. Mohamad, *Electrical conductivity studies on PVA/PVP-KOH alkaline solid polymer blend electrolyte*, Ionics 11 (2005) 418-422.
7. A.M.M. Ali, M.Z.A. Yahya, M. Mustafa, A.H. Ahmad, R.H.Y. Subban, A.A. Mohamad, *Electrical Properties of Plasticized Chitosan-Lithium IMIDE with Oleic Acid-Based Polymer Electrolytes for Lithium Rechargeable Batteries*, Ionics 11 (2005) 1-4.
8. A.A. Mohamad, A.K. Arof, *Effect of storage time on the properties of PVA-KOH alkaline solid polymer electrolyte system*, Ionics 12 (2006) 57-61.
9. A.A. Mohamad, *Zn/gelled 6 M KOH/O₂ zinc-air battery*, Journal of Power Sources 159 (2006) 752-757.
10. A.A. Mohamad, A.K. Arof, *Effect of temperature on the conductivity, structural, and morphology of PVA-based alkaline solid polymer electrolyte*, Ionics 12 (2006) 263-268.
11. L.S. Ng, A.A. Mohamad, *Proton Battery based on Plasticized Chitosan-NH₄NO₃ Solid Polymer Electrolyte*, Journal of Power Sources 163 (2006) 382-385.
12. A.A. Mohamad, A.K. Arof, *Plasticized Alkaline Solid Polymer Electrolyte System*, Materials Letter 61 (2007) 3096-3099.
13. S.C. Yap, A.A. Mohamad, *Proton batteries with hydroponics gel as gel polymer electrolyte*, Electrochemical and Solid-State Letters 10 (2007) A139-A141.
14. A.A. Mohamad, H. Haliman, M.A. Sulaiman, M.Z.A. Yahya, A.M.M. Ali, *Electrical conductivity studies of plasticized anhydrous PEO-KOH alkaline solid polymer electrolyte*, Ionics 14 (2008) 59-62. Q3

15. N.H. Khalid, Y.M. Baba Ismail, A.A. Mohamad, *ZnCl₂- and NH₄Cl-Hydroponics Gel Electrolytes for Zinc-Carbon Batteries*, Journal of Power Sources 176 (2008) 393-395.
16. A.A. Mohamad, A.K. Arof, *Ni-MH battery based on plasticized alkaline solid polymer electrolytes*, Ionics 14 (2008) 415-420.
17. L.S. Ng, A.A. Mohamad, *Effect of Temperature on the Performance of Proton Batteries based on Chitosan-NH₄NO₃-EC Membrane*, Journal of Membrane Sciences 325 (2008) 653-657.
18. A.A. Mohamad, *Electrochemical properties of aluminum anodes in gel electrolyte-based aluminum-air batteries*, Corrosion Science 50 (2008) 3475-3479.
19. C.K. Yap, W.C. Tan, S.S. Alias, A.A. Mohamad, *Synthesis of Zinc Oxide by Zinc-Air System*, Journal of Alloys and Compounds 484 (2009) 934-938.
20. N.A. Badarulzaman, S. Purwadaria, A.A. Mohamad, Z.A. Ahmad, *The production of nickel-alumina composite coating via electroplating*, Ionics (2009) 603-607.
21. M.N. Masri, A.A. Mohamad, *Effect of adding potassium hydroxide to an agar binder for use as the anode in Zn-air batteries*, Corrosion Science 51 (2009) 3025-3029.
22. S.S. Alias, A.B. Ismail, A.A. Mohamad, *Effect of pH on ZnO nanoparticle properties synthesized by sol-gel centrifugation*, Journal of Alloys and Compounds 499 (2010) 231-237.
23. A. Jamaludin, A.A. Mohamad, *Application of liquid gel polymer electrolyte based on chitosan-NH₄NO₃ for proton batteries*, Journal of Applied Polymer Science 118 (2010) 1240-1243.
24. M.N. Masri, Z.M. Yunus, A.R.M. Warikh, A.A. Mohamad, *Electrical conductivity and corrosion protection properties of conductive paint coating*, Anti-Corrosion Methods and Materials 57 (2010) 204-208.
25. M. N. Masri, M. F. M. Nazeri, A. A. Mohamad, *Sago Gel Polymer Electrolyte for Zinc-air Battery*, *Advances in Science and Technology* 72 (2010) 305-308.
26. A. Jamaludin, Z. Ahmad, Z. A. Ahmad, A. A. Mohamad, *A direct borohydride fuel cell employing a sago gel polymer electrolyte*, International Journal of Hydrogen Energy 35 (2010) 11229-11236.
27. W.C. Tan, A. A. Mohamad, *A study on the effects of the discharge current and ambient temperature on the formation of zinc oxide synthesized via the zinc-air system*, Journal of the Electrochemical Society 157 (2010) E184-E190.
28. Jeremy C.H. Koh, Zainal Arifin Ahmad, Ahmad Azmin Mohamad, *Self-Aligned TiO₂ Nanotube Arrays Produced By Air-cathode As Electrode*, Journal of Alloys and Compounds 509 (2011) 8707-8715.
29. Pao Ling Ng, Aliyah Jamaludin, Yatimah Alias, Wan Jefrey Basirun, Zainal Arifin Ahmad, Ahmad Azmin Mohamad *Effect of KOH concentration in the gel polymer electrolyte for direct borohydride fuel cell*, Journal of Applied Polymer Science 123 (2012) 2662–2666.
30. Jeremy C.H. Koh, Zainal Arifin Ahmad, Ahmad Azmin Mohamad, *Bacto agar-based gel polymer electrolyte*, Ionics, 18 (2012) 359–364.
31. Wee Ching Tan, Siti Salwa Alias, Ahmad Badri Ismail, Ahmad Azmin Mohamad, *Effect of styrene-acrylonitrile content on 0.5 M NaI/0.05 M I₂ liquid electrolyte encapsulation for dye-sensitized solar cells*, Journal of Solid State Electrochemistry 16 (2012) 2103–2112.

32. Yanny Marlina Baba Ismail, Habsah Haliman, Ahmad Azmin Mohamad, Hydroponics Polymer Gels for Zn-MnO₂ Alkaline Batteries, *International Journal of Electrochemical Science* 7 (2012) 3555 – 3566.
33. Wee Ching Tan, Siti Salwa Alias, Ahmad Badri Ismail, Ahmad Azmin Mohamad, Effect of styrene-acrylonitrile content on 0.5 M NaI/0.05 M I₂ liquid electrolyte encapsulation for dye-sensitized solar cells, *Journal of Solid State Electrochemistry* 16 (2012) 2103-2112
34. Muhammad Firdaus Mohd Nazeri, Muhammad Ghaddafy Affendy and Ahmad Azmin Mohamad, Corrosion Study of Sn-9Zn Lead-Free Solder in Alkaline Solution, *International Journal of Electrochemical Science* 7(2012) 4182-4191
35. Muhammad Ghaddafy Affendy and Ahmad Azmin Mohamad, Effects of Corrosion on the Shear Strength of Cu/Sn-9Zn/Cu Lap Joints in 3.5 wt. % NaCl Solution, *International Journal of Electrochemical Science* 7 (2012) 4951-4958
36. Muhammad Firdaus Mohd Nazeri, Mohd Shahadan Mohd Suan, Mohamad Najmi Masri, Nurhaswani Alias, and Ahmad Azmin Mohamad, Corrosion Studies of Conductive Paint Coating Using Battery Cathode Waste Material in Sodium Chloride Solution, *International Journal of Electrochemical Science* 7 (2012) 6976-6987
37. Ann Ling Tan, Li Jian Khoo, Siti Salwa Alias, Ahmad Azmin Mohamad, ZnO nanoparticles and poly (acrylic) acid-based polymer gel electrolyte for photo electrochemical cell, *Journal of Sol-Gel Science and Technology* 64 (2012) 184-192
38. MC Liew, I Ahmad, LM Lee, MFM Nazeri, H Haliman, AA Mohamad, Corrosion Behavior of Sn-3.0 Ag-0.5 Cu Lead-Free Solder in Potassium Hydroxide Electrolyte, *Metallurgical and Materials Transactions A* 43 (2012) 3742-3747.
39. L.M. Lee, H. Haliman, A.A. Mohamad, Interfacial reaction of a Sn-3.0 Ag-0.5 Cu thin film during solder reflow, *Soldering & Surface Mount Technology* 25 (2013) 15-23.
40. Liu Mei Lee and Ahmad Azmin Mohamad, Interfacial Reaction of Sn-Ag-Cu Lead-Free Solder Alloy on Cu: A Review, *Advances in Materials Science and Engineering* 2013 (2013) 1-11.
41. Mohamad Najmi Masri and Ahmad Azmin Mohamad, Effect of Adding Carbon Black to a Porous Zinc Anode in a Zinc-Air Battery, *Journal of The Electrochemical Society* 160 (2013) A715-A721.
42. Muhammad Firdaus Mohd Nazeri, and Ahmad Azmin Mohamad. Corrosion measurement of Sn-Zn lead-free solders in 6 M KOH solution. *Measurement* 47 (2014) 820–826.
43. Muhammad Ghaddafy Affendy, Muhamad Zamri Yahaya, Ahmad Azmin Mohamad, Corrosion of Sn-9Zn Solder Joints: A Review, *Int. J. Electroactive Mater.* 2 (2014) 8-16.
44. Liu Mei Lee, Muhammad Firdaus Mohd Nazeri, Habsah Haliman and Ahmad Azmin Mohamad, Corrosion of Sn-3.0Ag-0.5Cu thin films on Cu substrates in alkaline solution, *Soldering & Surface Mount Technology* 26/2 (2014) 79-86.
45. Muhammad Firdaus Mohd Nazeri, Ahmad Badri Ismail, Ahmad Azmin Mohamad, Effect of polarizations on Sn-Zn solders alloys in alkaline electrolyte, *Journal of Alloys and Compounds* 606 (2014) 278–287.
46. Nurhaswani Alias, Ahmad Azmin Mohamad. "Advances of aqueous rechargeable lithium-ion battery: A review." *Journal of Power Sources* 274 (2015) 237-251.

47. Nurhaswani Alias, Ahmad Azmin Mohamad, Morphology study of electrodeposited zinc from zinc sulfate solutions as anode for zinc-air and zinc-carbon batteries, *Journal of King Saud University-Engineering Sciences* 27 (2015) 43-48.
48. Nurhaswani Alias, Ahmad Azmin Mohamad, Morphology study of electrodeposited zinc from zinc sulfate solutions as anode for zinc-air and zinc-carbon batteries, *Journal of King Saud University-Engineering Sciences* 27 (2015) 43-48.
49. Muhammad Firdaus Mohd Nazeri, Ahmad Azmin Mohamad, Effect of exposure to alkaline solution on Sn-9Zn solder joints *Journal of Materials Processing Technology* 219 (2015) 164-172.

Selected Proceeding / Seminar

1. A.A. Mohamad and M.Z.A. Yahya
Electrical conductivity studies of plasticized hydrous PEO-KOH alkaline solid polymer electrolyte
Book of Abstracts, E. Ivers-Tiffée, J. Maier and S. Singhal (Eds.), International Conference on Solid State Ionics (SSI15), Baden-Baden, Germany, 17-22 Jul 2005, P. 325.
2. A.A. Mohamad and M.Z.A. Yahya
The role of plasticizers in potassium hydroxide - poly(ethylene) oxide using methanol as solvent
Book of Abstracts, E. Ivers-Tiffée, J. Maier and S. Singhal (Eds.), International Conference on Solid State Ionics (SSI15), Baden-Baden, Germany, 17-22 Jul 2005, P. 339.
3. A.A. Mohamad
Preparation of Mg₂Ni Hydrogen Storage by the Mechanical Alloying
Program and Abstract, Edy Giri Rachman Putra (Ed.), International Conference on Neutron and X-Ray Scattering (ICNX2007), Bandung, Indonesia, American Institute of Physics, Conference Proceeding, Vol. 989, P245, July 23-31, 2007.
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Sago Gel Electrolytes For Zn-air Batteries and Fuel Cells, Asia Pacific Confederation of Chemical Engineering, 5-8 October 2010, Taipei, Taiwan (invited speaker)

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3. Journal of Membrane Science – Elsevier
4. Chemical Engineering Communications – Taylor and Francis Ltd.
5. Ionics – Springer
6. Sadhana – Springer
7. Journal of Applied Electrochemistry – Springer
8. Optical Materials – Elsevier
9. Electrochemistry Communications – Elsevier
10. Journal of Physics and Chemistry of Solids – Elsevier
11. Journal of Applied Polymer Science - Wiley
12. South African Journal of Chemistry
13. Polymer International
14. Resin & Pigment Technology – Emerald
15. Journal of Materials Science – Springer
16. Journal of Electroanalytical Chemistry – Elsevier
17. Journal of Alloys and Compounds – Elsevier
18. Journal of Power Sources – Elsevier

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“Little by little, one travels far” - J. R. R. Tolkien
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