

Name : **PROF Ts. DR MUHD ZU AZHAN BIN YAHYA**
Position : Deputy Vice Chancellor (Student Affairs and Alumni)
Address : Faculty of Defence Science & Technology,
Universiti Pertahanan Nasional Malaysia,
57000 Kuala Lumpur, MALAYSIA.
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Academic Qualification:

- Ph.D. (Advanced Materials) (Mac 2000- Jun 2002) - University of Malaya.
- M.Sc. (Physics) (Jun 1998- Jun 1999) - University of Malaya.
- B. Sc (Hons) Physics with Education (1992-96) - University of Malaya
- SPM (1989) – Kolej Islam Sultan Alam Shah, Klang
- SRP (1987) – SMK (A) Tok Jiring, Kuala Terengganu
- 1979-1984 – Sek Ren Tengku Mahmud, Besut Terengganu

Working Experiences:

- 2022 : **Professor VK5**, Faculty of Defence Science & Technology, UPNM
2019 : **Professor VK6**, Faculty of Defence Science & Technology, UPNM
2012 : **Professor VK7**, Faculty of Defence Science & Technology, UPNM
2008 : **Associate Professor**
Faculty of Applied Sciences, Universiti Teknologi MARA
2005 : **Senior Lecturer**
Faculty of Applied Sciences, Universiti Teknologi MARA (UiTM)
1999 : **Lecturer**, Department of Physics, Faculty of Applied Sciences, UiTM
1996 (Sep) : **Lecturer**, L&G Twintech Institute of Technology
- HND BTEC (De Monfort University Twinning Program)
- Coordinator, Mech. & Manufacturing Program, Univ. of Portsmouth, UK
1996 : **Physics Lecturer** Kolej Yayasan Pelajaran MARA, Bangi

Appointment:

- **Deputy Vice Chancellor (Student Affairs and Alumni), UPNM** (15 May 2019 – present)
- **Director, Centre for Defence Foundation Studies, UPNM** (15 Feb 2016 – 14 May 2019)
- **Director, Centre for Publication, UPNM** (15 Feb 2014 – 14 Feb 2016)
- **Deputy Dean (Research & Postgraduate)**, Faculty of Sc & Def Technology UPNM, (Nov 2012 – 14 Feb 2014).
- **Senate Member UPNM**, (2013 – present)
- **Deputy Dean (Research & Industrial Networking)**, Faculty of Applied Sciences, UiTM, (Jan 2009 – Dec 2010).
- **Head of Program AS203 – BSc (Hons) Physics** (Feb 05 – Jan 09)
- **Head, Centre of Advanced Materials**, Institute of Science, UiTM (Jan 2007 – Dec 2011)
- **Rank: Lt Col, Territorial Reserved Army (ASKAR WATANIAH)** (Jan 2003 – present)
- **Deputy Commandant, PALAPES UPNM** (2014 – present)
- **Head, Ionics Materials & Devices (i-MADE) Research Group** (Jan 2003 - 2012)
- **Research Fellow**, TM R&D (EMC & Power Quality Programme), (Jan 2011 – Jun 2011)
- **Fellow**, Malaysian Solid State Science and Technology Society (MASS): Since 2012
- **Fellow, Teratai Residential College**. (Nov 08 – Dec 2011)
- **Council Member**, Majlis Profesor Negara (MPN) Cluster of Science & Mathematics: 2014 -2018
- **Council Member** of Institute of Materials Malaysia (IMM): 2006-2008.
- **Assessor**, Lab Accreditation MS ISO 17025 STANDARDS MALAYSIA: Since Jun 2009.
- **Expert Panel**, Research Project: Industry Cluster R&D&C (ScFund, InnoFund, TechnoFund), MOSTI: 2010 - 2023
- **Board of Moderators (Examination)**, SEGi College, KL (2014 – 2016)
- **External Examiner**, Pusat Asasi Universiti Teknologi MARA (Mac 15, 2020 – Mac 14, 2022)
- **Panel**, Majlis Akreditasi Teknologi dan Teknikal (TTAC) MBOT (Dec 24, 2019 – Jan 01, 2024)
- **Research Grant Panel** – Kementerian Pengajian Tinggi (2017 – present)
- **Deputy Chairman** – TVET Cluster, Majlis Profesor Negara (2023 – present)
- **Chairman** – Majlis PALAPES Universiti Awam (2022 – present)
- **Chairman** – Majlis Kerjaya & Kaunseling Universiti Awam (2020 – present)

Research Interests:

Batteries (Lithium, Alkaline and Proton Batteries), Supercapacitors, Sensors, Organic Semiconductor Devices, Fuel Cells, Computational Materials Science.

Professional Memberships:

- **Advisor/ Life Member**, Electroactive Materials Society (EMS): 2021 - present
- **President/ Life Member**, Electroactive Materials Society (EMS): 2012 - 2021
- **Professional Member** of Institute of Materials Malaysia (M 1269): 2006- present.
- **Professional Technologist**, MBOT (PT18030424): Since 2018
- **Life Member** of Malaysian Solid State Science and Technology Society (MASS 266): Since 2007
- **Member** of Malaysian Analytical Science Society, ANALIS (A 158): Since 1999
- **Member** of International Society of Solid State Ionics (ISSS): 2005-present.

Academic Awards:

1. **Special Award of Quality: Pengerusi Lembaga Pengarah Universiti - UPM 2018**
2. **Excellent Academic Award UPM 2016 (Postgraduate Supervision)**
3. **Excellent Academic Award UPM 2015 (Professional Service)**
4. **Excellent Academic Award UPM 2014 (Research)**
5. **Sijil Prestasi Cemerlang UPM 2016, 2017, 2018, 2019, 2020 2021**
6. **Anugerah Kualiti Pengurusan Penyelidikan, UPM 2013**
7. **Young Scientist Award, MASS 2010**
8. **UiTM Excellent Service Award(s) 2009, 2006, 2003**
9. **Award for Academic Staff (FSG) Active in Publication (Scopus) – 2009.**
10. **Award for Academic Staff (FSG) Top 10 Citations in Publication (Scopus) – 2009.**
11. **Best Teaching Award 2007 for Faculty of Applied Sciences**
12. **Vice Chancellor's Award for recipient of biggest research grant – 2005.**
13. **Young Scientist Award, ICEP 2004**
14. **Best Researcher Award 2004 for Faculty of Applied Sciences**
15. **Best Lecturer Award 2003 for Faculty of Applied Sciences**
16. **HRD STI Fellowship (PhD) 2000, MOSTI.**

Invention Awards:

1. **ITEX2017 – Gold Medal:** 12 May 2017 – A Green Route of Graphene for Energy Harvesting/Storage Devices and Printed Electronics
2. **MTE2015 – Silver Medal:** 12 Feb 2014 – Green Route Graphene Nanosheets
3. **iENA 2016 – Gold Medal:** 30 Oct 2016 – High Performance Gun Cotton
4. **British Invention Show BIS2014 – Gold Medal:** 22 Oct 2014 – Green Cellulose Based Li-Air Batteries
5. **ITEX2014 – Gold Medal:** 10 May 2014 – Green Composite Cellulose Acetate Polymer Electrolytes (G-CAPE) for Lithium Batteries
6. **MTE 2014 – Silver Medal:** 22 Feb 2014 - Green Composite Cellulose Acetate Polymer Electrolytes (CAPE) for Application in Electrochemical Devices
7. **MTE 2014 – Bronze Medal:** 22 Feb 2014 - MG30 Bio-Polymer Electrolytes for Lithium Batteries
8. **PECIPTA 2013 – Bronze Medal:** 09 Nov 2013 – Dispersed Semiconductor Polymer Electrolytes for Solar Cells
9. **MTE 2011 - Silver Medal:** 18 Feb 2011 – Cellulose-Based Solid Polymer Electrolytes for proton Batteries
10. **MTE 2011 - Bronze Medal:** 18 Feb 2111 – Cellulose-Based Solid Polymer Electrolytes for Electrochemical Devices
11. **IID-2010 SE -Innovation and Design Exhibition Gold Medal:** 14 Oct 2010 – Cellulose-Based Polymer Gel Electrolytes
12. **IID-2010 SE - Gold Medal:** 14 Oct 2010 – Cellulose-Based Solid Polymer Electrolytes
13. **IID-2010 SE - Gold Medal:** 14 Oct 2010 – Green Electrolytes from Natural Rubbers
14. **IID-2010 SE - Silver Medal:** 14 Oct 2010 – MG49 Based Electrolytes
15. **IID-2010 SE - Bronze Medal:** 14 Oct 2010 – Green Batteries from Cellulose
16. **IID-2010 SE - Bronze Medal:** 14 Oct 2010 – New PEM Fuel Cells
17. **IID-2008 - Bronze Medal:** 25 Feb 2008 – Li Air Batteries
18. **IID-2008 - Bronze Medal:** 25 Feb 2008 – CNT from palm oil
19. **IID-2008 - Bronze Medal:** 25 Feb 2008 – Li Polymer Battery from Natural Rubber
20. **IID-2008 - Bronze Medal:** 25 Feb 2008 – Cellulose-based proton Battery

POSTGRADUATES SUPERVISION:

Total Number of GRADUATED PhD Students: 25

Total Number of GRADUATED MSc Students: 31

PhD. Students:

1. **Ab Malik Marwan Ali** - Characterization of Gel-Type Polymer Electrolytes Based on PMMA for Lithium Polymer Batteries. (Ph.D. – **Graduated**)
2. **Mohamad Fariz Mohamad Taib** – First Principles Studies on Properties of Pb(II), Sn(II) and Ge(II) Ferroelectric Materials Using Density Functional Theory (Ph.D- **Graduated**)
3. **Ahmad Nazib Alias** – Computational and Characterization Studies of Non-Conjugated Poly-(N-Vinylcarbazole) Blends as Host Polymer for Phosphorescence Emission (Ph.D.- **Graduated**)
4. **Muhamad Kamil Yaakob** – Ab-Initio Studies on Properties of Strain-Free and Strained Perovskite-Type ABO_3 Multiferroic Materials (Ph.D.- **Graduated**)
5. **Siti Zafirah Zainal Abidin** – Nanocomposite Polymer Gel Electrolyte Based on LiBOB-Cellulose Acetate for Lithium-Oxygen Battery (Ph.D.- **Graduated**)
6. **Ajis Lepit** – Properties of Poly(vinylidene Fluoride)-co-Poly(vinylimidazole)Solid Polymer Electrolytes Prepared by Radiation-Induced Grafting Method for Proton Exchange Membrane Fuel Cell (Ph.D.- **Graduated**)
7. **Amirah Amalina Ahmad Tarmizi** - Electrical and Barrier Properties of Modified Polyaniline Coating Films and Its Effects on The Corrosion Protection of Mild Steel (Ph.D.- **Graduated**)
8. **Nazli Ahmad Aini** - Studies on PEEK-Chitosan Crosslinked Via UV Curing for Proton Exchange Fuel Cell Membranes: (Ph.D.- **Graduated**)
9. **Nor Kartini Jaafar** - Preparation of Grafted Conducting Polymers By Gamma Ray Radiation: Characterization For Application In Supercapacitors (Ph.D.- **Graduated**)
10. **Fadhul Wafi Badrudin** – First Principle Study of Polyanionic $LiFeSO_4F$ and $LiFeSO_4OH$ Cathode Materials Using Density Functional Theory (Ph.D.- **Graduated- UPNM**)
11. **Ainnur Izzati Kamisan** – Ultrasound Assisted Synthesis and Characterization of Graphene Nanosheets as Cathode Material for Lithium Sulfur Battery. (Ph.D.- **Graduated- UPNM**)
12. **Khuzaimah Nazir** – Preparation & Characterization of Epoxidized 30% PMMA Grafted Natural Rubber Polymer Electrolyte for Electrochemical Devices (Ph.D.- **Graduated**)
13. **Ahmad Firdaus Zainal Abedin** - The Perturbation of Backscattered Fast Neutrons Flux Caused by the Resonances in the Cross Section of C, N and O for Possible Use in Explosive Detection (Ph.D.- **Graduated- UPNM**)
14. **Mohd Hazrie Bin Samat** - First-Principles Study on Structural, Electronic and Optical Properties of Nd-doped TiO_2 for Dye-Sensitized Solar Cells (Ph.D.- **Graduated**)
15. **Nur Hafiz Bin Hussin** - First Principles Study Toward lead free Sn(ii) and La doped PZT using DFT (Ph.D.- **Graduated**)
16. **Ahmad Fairoz Aziz** – Preparation and Characterization of Treated Methyl Grafted Natural Rubber Polymer Electrolytes (Ph.D.- **Graduated**)
17. **Noorhaslin Che Su** – Ionic Liquid-Based Gel Electrolyte for Potential Application in Sodium Rechargeable Batteries (Ph.D.- **Graduated- UPNM**)
18. **Ruslinda Md Ali** – Modified Activated Carbon-Based Cathodes using CoTMPP and Graphene Catalyst for Zinc-Air Battery (Ph.D.- **Graduated- UPNM**)
19. **Ismaliza Ismail** - Surface Modification for Enhancement of Barrier and Adhesion Properties of Primer in A Rubber to Metal Bonded Composites in Salt Environment (Ph.D.- **Graduated**)
20. **Mohd Sazwan Affendi Bin Rasiman** - The Investigation of Cathode Materials of $Li_2MP_2O_7$ (M=Mn,Fe,Co) family for Battery Application via First Principles Study (Ph.D.- **Graduated**)
21. **Ainnur Sherene Kamisan** – Preparation and Characterization of Graphene Composite Electrode Materials for Supercapacitor (Ph.D.- **Graduated- UPNM**)
22. **Nur Hamizah Binti Mohd Zaki** - Preparation and characterization of graphene-nanocomposite electrode for supercapacitor (Ph.D.- **Graduated**)
23. **Mohamad Firdaus Rosle** – Synthesis of $Na(MO_x)_2-X(PO_4)_3/C$ as High Rate and Stable Cycling Cathode Materials for Sodium-Ion Batteries (Ph.D.- **Graduated - UPNM**)
24. **Maziidah Binti Hamidi** - Preparation and Characterization of Pyrophosphate Based Cathode Material for Lithium ion Battery (Ph.D.- **Graduated**)
25. **Muhammad Noor Syazwan Bin Saimin** – First Principles Study on Structural, Electronic and Magnetic

- Properties of Heusler-Type Ferromagnet Using DFT (**Ph.D. - Graduated**)
26. **Maisaratul Shamimi Muhamad Shukri** – First Principles Studied of Properties of CO and NO Gas Molecules on Graphene-Based Material using Density Functional Theory
 27. **Tunku Ishak Al-Irsyad Tunku Kudin** - *Studies on Hybrid Organic Semiconductor Materials for Application in Light Emitting Displays (LED)*
 28. **Farinaa Mohd Jamil** – MnO₂ Mesopores Carbon Composite for Supercapacitors Application.
 29. **Aniza Omar** – *Development Of CA-MgTf Polymer Electrolytes Complexes For Magnesium Batteries*
 30. **Shahrul Izwan Ahmad** – *Study on Properties of Heteroatom-Doped Graphene Encapsulate LiFePO₄ for Battery Application Using Density Functional Theory*

MSc.Students (By-Research):

1. **Faizatul Farah Hatta** - *Studies On Alkaline Solid Polymer Blends Electrolyte For Proton Rechargeable Batteries. (Graduated)*
2. **Tunku Ishak Al-Irsyad T. Kudin** - Development of Carbon Nanotubes Derived from Palm Oil as Electrode Materials For Lithium Ion Batteries (**Graduated**)
3. **Norazmawati Lahazan** - Preparation and Characterisation of Poly (L-Leucine)-1,3-Diamino Propane (PPL)-Lil as Solid Polymer Electrolyte (**Graduated**)
4. **Noor 'Aisyah Johari** - Preparation and Characterization of Cellulose-Based Polymer Gel Electrolytes for Proton Batteries. (**Graduated**)
5. **Fauziah Wan Mohd Noor** - Preparation and Characterization of Cellulose Acetate- Based Polymer Electrolytes For Humidity Sensors Application (**Graduated**)
6. **Siti Irma Yuana Sheikh Mohd Saaid** - Investigation of Cellulose Acetate-Ammonium Salt Complexes Polymer Electrolytes for Proton Battery. (**Graduated**)
7. **Mohd Hamizan Selamat** - Characterization of Carbon Derived From Palm Kernel Cake (PKC) as Coating Materials (**Graduated**)
8. **Ainnur Sherene Kamisan** - Characterization of Polymer Electrolytes Based on MethylGrafted Natural Rubber For Proton Batteries (**Graduated**)
9. **Nurhizwati Abd Rahman** - Preparation and Characterization of Electron Conducting Polymer For Its Application in Electrochemical Cells (**Graduated**)
10. **Nurhana Ilmira Harun** - Studies on Cellulose Acetate-Based Polymer Electrolytes For Gas Sensor Applications (**Graduated**)
11. **Ruslinda Md Ali** - Studies on Semiconductor Dispersed Polymer Electrolytes Composite for Electrochemical Solar Cell Applications (**Graduated**)
12. **Maziidah Hamidi** - Preparation And Characterization Of Lithium-Based Glass Ceramic Conducting Materials (**Graduated**)
13. **Aziah Ahmad Arifin** - Synthesis Of Polyfluorene And Its Derivatives Via Electrodeposition Technique (**Graduated**)
14. **Mas Fiza Mustafa** - Preparation And Characterization Of Composited Methyl Cellulose-Based Polymer Electrolytes For Electrochemical Cells (**Graduated**)
15. **Nurul Ilham Adam** – Physical and Electrochemical Studies on Nanocomposite Natural Rubber Grafted 30% PMMA for Application in Lithium Polymer (**Graduated**)
16. **Nur Hamizah Mohd Zaki** – Gel Polymer Electrolytes Based on 30% Methylgrafted Natural Rubber: Characterization for Application in Electric Double Layer Capacitors (**Graduated**)
17. **Zaidatul Salwa Mahmud** – Alkaline MG49 Based Electrolytes for Solid State Redox Capacitors (**Graduated**)
18. **Nurrisa Asrul** – *Bioenergy Generation From Laccase-Glucose Oxidase Enzymatic Fuel Cell (Graduated)*
19. **Nur Syahida Sahli** – Physical and Electrical Studies on Methylcellulose Based Ion Polymer Electrolyte. (**Graduated**)
20. **Nordiana Nabilla Mohd Ramly** – Synthesis and Charaterization of UV-crosslinked SPEEK-Methyl Cellulose as Proton Exchange Membrane (**Graduated**)
21. **Siti Masyitah Binti Mohd Razalli** - Preparation and Characterization of Cellulose Acetate Plasticized With Non Carbonate Based Plasticizer (**Graduated**)
22. **Siti Fadzilah Ayub** – Preparation and Characterization of Blend MG30 With PEMA Based Polymer Electrolyte (**Graduated**)
23. **Aimi Syahirah Awang Bakar** – *Green Energy Generation from Rhizopus-Gloeophyllum Microbial Fuel Cell (Graduated)*
24. **Lt Kdr Farizha Ibrahim** – Development of Nitrocellulose as a Gun Powder in 5.56 mm Bullet (**Graduated - UPNM**)
25. **Nursaadah Ahmad Poad** – Electronic Structure of Metal Oxide and Organic Semiconductor Interface by

- Optical Second Harmonic Generation Measurement (**Graduated - UPNM**)
26. **Noor Wahidah Zainol Jamil** – Heavy Metal – Ion Selective Electrode Based on Aryl Methyl Carbonylamino Thiazole Derivatives as Ionophore (**Graduated - UPNM**)
 27. **Muhamad Haziq Ridzwan** – First Principles Investigation of The Role of Atomic Substitution (Galium and Aluminium Ions) and Oxygen Vacancies in Multiferroic BiFeO₃ Material (**Graduated**)
 28. **Muhammad Syahir Sak Ari** - Biopolymer Electrolyte Based on Agarose and 1-Ethyl-3-Methylimidazolium Acetate Ionic Liquid for Lithium Battery (**Graduated**)
 29. **Aqeel Idrus** – First Principle Study on Novel Cathode Material NaFeSO₄OH by Using Density Functional Theory (**Graduated- UPNM**)
 30. **Roslan Husin** – Electronic Structure and Optical Properties of Lithium Niobate based Sensor for Military Application: A First Principle Study (**Graduated- UPNM**)
 31. **Kamaliati Hanum Binti Kamaruddin** - Comparative studies of structural, magnetic and electronic properties between BaFe₂As₂ and BaFe_{2-x}Ni_xAs₂ at low temperature using density functional theory (**Graduated - UPNM**)
 32. **Nurul Atikah Binti Shahrul Effendi** - Graphene-ZnO Nanocomposites for Dye-Sensitized Solar Cells Application
 33. **Nursyazwani Binti Suhaili** - Structural, Electronic and Optical Properties of Hybrid Organic-Inorganic Halide Perovskite CH₃NH₃BX₃ (B= Pb, Sn, Ge; X = I, Br, Cl) Using Density Functional Theory
 34. **Nur Zarifah Syazwani Binti Noreaini** - The Effect of Gallium Doped BFO to Their Structural, Electrical and Magnetic Properties
 35. **Noor Ezniera Shafieza Sazali** – Supercapacitor Using Binderless Composite Monolith Electrode from HNO₃ Treated Graphene and Pre-Carbonized Biomass Fibers (MSc UKM)

RESEARCH GRANTS:

Total Number of projects: 77
(As Principal Investigator: 13)

Total Amount: RM 6,133,053.00
(As Principal Investigator: RM 1,235,984.00)

1. Development of Biomaterials Based Polymer Electrolytes for Electrochemical Systems, **Head of project**, IRPA Project 2004-2007. (09-02-010068 EA 0068) – RM 199,200.00, Jul 2004- Jul 2007
2. Electrical Property Studies On Plasticized Chitosan-LiN(CF₃SO₂)₂ With Oleic/ Myristic Acid Based Polymer Electrolytes for Lithium Rechargeable Batteries, Member of project BRC Project 2003, (600-BRC/ST.5/3/542) – RM 20,000.00, 15 Mac 2003 – 15 Mac 2004
3. Investigations on The Electrical Transport Properties of Chitosan-Lithium Carbonate as Humidity Sensor, **Head of project**, BRC Project 2003, (600-BRC/ST.5/3/573) – RM 20,000.00, 30 Jun 2003 – 30 Jun 2004
4. Impedance Spectroscopy Studies On Solid Polymer Electrolytes (SPE) Based On HDPE/PMMA Blends, Member of project, BRC Project 2003, (600-BRC/ST.5/3/597) – RM 33,100.00, 01 Oct 2003 – 01 Oct 2004
5. Ionic Conductivity Studies On PVA/PVP as Solid Polymer Electrolytes for Secondary Batteries, Member of project, BRC Project 2003, (600-BRC/ST.5/3/598) – RM 25,000.00, 01 Oct 2003 – 01 Oct 2004
6. Conductivity Studies On Poly(acrylo nitrile) (PAN) – Based Gel Polymer Electrolytes For Capacitors - Member of project, BRC Project 2003, (600-BRC/ST.5/3/612) – RM 47,000.00, 01 Oct 2003 – 01 Oct 2004
7. Removeable Of Cadmium (Cd) From Waste Water By Using Hevea Brasiliensis and Imprata Pylindrical - Member of project, BRC Project 2003, (600-BRC/ST.5/3/613) – RM 20,000.00, 01 Oct 2003 – 01 Oct 2004
8. Ion Transport Studies on PMMA Gel-type Polymer Electrolytes Member of project, IRDC Project 2004, (600-IRDC/ST.5/3/792) – RM 18,000.00, 01 Jun 2004 – 01 Jun 2005
9. Development of Proton Batteries Based on cellulose Polymer Electrolytes, **Head of project**, Science Fund 03-01-01-SF0022 RM 95,984.00, Dec 2006- Dec 2008
10. Development of Composite polymer Electrolytes Membrane for the Application in Fuel Cells - **Head of project**, FRGS 600-IRDC/ST/FRGS 5/3/1151, RM 60,000.00, Dec 2006- Dec 2008
11. Development of New Bio-Material based Carbon Nanotubes Via spray Pyrolysis and Its Application in Electrochemical Systems, Member of project, FRGS 600-IRDC/ST/FRGS5/3/1208 RM 60,000.00, Mac 2007 –Mac 2009
12. Preparation and Characterization of Modified Chitosan for Electrochemical Devices, Member of project, Research Excellence Fund UiTM (600-IRDC/ST/DANA 5/3/Dst (92/2008) RM 20,000, 15 Aug 2008 – 15 Aug 2009
13. Natural Rubber (NR) Grafted With 30% Poly (Methyl Methacrylate) (PMMA): Characterization for Application in Lithium Polymer Battery, Member of project, Research Excellence Fund UiTM (600-IRDC/ST/DANA 5/3/Dst (98/2008), RM 20,000.00, 15 Aug 2008 – 15 Aug 2009
14. Electrochemical Properties of Zinc-Air Battery Based on Hydroponics, FRGS USM Member of project, RM 39,900.00,

- Feb 2007 – Feb 2010
15. Studies on UV Irradiated Chitosan/PEEK Blends for Proton Exchange Fuel Cell Membrane - Member of project FRGS (600-RMI/ST/FRGS 5/3/Fst (21/2009) RM 49,000.00 Aug 09 – Aug 2011
 16. Preparation And Characterization Of Lithium Based Glass-Ceramics Conductor Materials For Lithium Batteries- Member of project FRGS (600-RMI/ST/FRGS 5/3/Fst (23/2009) RM 40,000.00 Aug 2009 – Aug 2011
 17. Studies On The Effects Of Gamma Irradiation On Fuel Cells Electrode Materials - Member of project FRGS (600-RMI/ST/FRGS 5/3/Fst (18/2009) RM 49,000.00 Aug 2009 – Aug 2011
 18. Preparation and Characterization on Nano-Composited Proton Exchange Fuel cell Membrane by Radiation-Induced Grafting - Member of project FRGS (600-RMI/ST/FRGS 5/3/Fst (33/2009) RM 39,000.00, 01 Nov 2009 – 31 Oct 2011
 19. Proton conducting Gamma Ray Induced Grafted onto Polyimide Nanocomposite membranes For Fuel Cell Applications- **Head of Project** Research Excellence Fund 600-RMI/ST/DANA 5/3/Dst (299/2009) RM 40,000.00 0, 1 Jan 2010 – 31 Dis 2011
 20. Studies on PEEK-Chitosan Crosslinked Biopolymer Based Proton Exchange Membranes Using UV Curing For Fuel Cell Applications - **Head of Project** Research Excellence Fund 600-RMI/ST/DANA 5/3/Dst (300/2009) RM 30,000.000, 1 Jan 2010 – 31 Dis 2011
 21. Preparation of Grafted Polymer Electrolytes by Gamma Ray Radiation: Characterization for Application in Supercapacitors- **Head of Project** Research Excellence Fund 600-RMI/ST/DANA 5/3/Dst (299/2009) RM 30,000.00, 01 Jan 2010 – 31 Dis 2011
 22. Ab Initio and Experimental Studies On Properties of Lead Free Ferroelectric Materials - **Head of Project** 600-RMI/ST/FRGS 5/3/Fst (4/2010) RM 45,600.00 01 Apr 2010 – 31 Mac 2012
 23. Structural and Electrical Studies on Semiconductor Dispersed Composite Cellulose based Polymer Electrolytes- Member of project FRGS/1/10/ST/UITM/03/12RM 60,000.00 01 Apr 2010 – 31 Mac 2012
 24. Effect of Mixed Ionic and Electronic Conductor on the Electrochemiluminescence Properties of Poly-(N-vinylcarbazole) and their Conduction Mechanism - Member of project 600-RMI/ST/FRGS 5/3/Fst (198/2010) RM 62,000.00: 27 Dis 2010 – 26 Dis 2012
 25. Determination on the Homogeneity and Conductivity Enhancement of PMMA/ENR 50 Blend Electrolyte by Nano SiO₂ and Al₂O₃ Fillers - Member of project 600-RMI/ST/FRGS 5/3/Fst (206/2010) RM 81,000.00: 27 Dis 2010 – 26 Dis 2012
 26. Nano-Polycrystalline Garnet-type Solid Electrolyte Li Ion Conductor - Member of project 600-RMI/ST/FRGS 5/3/Fst (207/2010) RM 75,000.00: 27 Dis 2010 – 26 Dis 2012
 27. Electropolymerization Rate (RPE = [Charge Transfer]^x [Constant Phase Element]^y [Warburg]^z) of ortho-Polyphenylenediamine on Platinum Microelectrode, Member of Project - FRGS/1/2011/STG01/UITM, RM56,000, 01 Aug 2011 – 31 Jul 2013
 28. Growth Mechanism of Self- Organized TiO₂ Nanotube Formation, Member of Project - FRGS/1/2011/STG01/UITM, RM126,000, 01 Jul 2011 – 27 Sep 2013
 29. Synthesis of Graphene Nano-Sheets matrix Strengthen via Nano metal Oxides as Electrode Materials for Energy Conversion Devices – **Head of Project** 100-RMI/Nanotech 16/6/2 (1/2011) RM249,000.00: 01 Oct 2011 – 30 Nov 2014)
 30. Development of Prototyped Rechargeable lithium Air Batteries Employing Bio-Derived Cellulose and Rubber Derivatives Based Gelled and Solid Polymer Electrolytes – **Head of Project** 600-RMI/PRGS 5/3 (6/2011) RM 243,000.00: 01 Nov 2011 – 31 Oct 2013
 31. Modified 1-Vinylimidazole Co-Grafting Protonated Poly(Vinylidene Fluoride) Blend Membranes Proton Conductor – Member of Project 600-RMI/RAGS 5/3 (35/2012) RM 80,000.00: 15 Dec 2012 – 14 Dec 2014
 32. Natural Enzymatic Oxidase Bio-Electric Generator Model – Member of Project 600-RMI/RAGS 5/3 (27/2012) RM 80,000.00: 15 Dec 2012 – 14 Dec 2014
 33. Cellulose Acetate LiBOB Doped with Ionic Mixture Composite Polymer Gel Electrolyte – Member of Project 600-RMI/RAGS 5/3 (26/2012) RM 80,000.00: 15 Dec 2012 – 14 Dec 2014
 34. Electrocatalytic Behaviour of Nanostructured Graphene/Metal Oxide Air Cathode Catalyst – Member of Project FRGS/1/2013/SG06/UPNM/02/2 RM 99,000.00: Apr 2013 – Mac 2015
 35. Gamma Radiation Resistance of New Multicomposition Tellurite Glass Doped Er/Ce Rare Earth Ion – Member of Project FRGS/1/2013/SG06/UPNM/03/1 RM 99,000.00: Apr 2013 – Mac 2015
 36. The Electronic Energy Band Structure and Magnetic Properties of Iron Nickel Superconductor, Member of Project - FRGS/1/2013/STG01/UPNM, RM41,000, 01 Apr 2013 – 31 Mac 2015
 37. Electrocatalytic behaviour of nanostructured graphene/metal oxide air cathode catalyst, Member of Project - FRGS/1/2013/STG01/UPNM, RM99,000, 01 Apr 2013 – 31 Mac 2015
 38. Characterisation of the enhanced thermal and mechanical properties of grafted CNT - epoxy composites, Member of Project - FRGS/2/2013/TK04/UPNM/03/1, RM120,800, 01 Jan 2014 – 31 Dec 2015
 39. Development of Composite Electrolytes for Rechargeable Metal-Air Cells – **Head of Project** ERGS/1/2012/STG05/UPNM/01/1 RM89,000.00: 01 Jul 2012 – 30 Jun 2015.
 40. Synthesis and First Principle Studies of Li₂Fe_xM_{1-x}SiO₄ (M= Ni, Co, Mg or V) Cathode Materials – **Head of Project** FRGS/1/2013/ST05/UPNM/01/1 RM 89,000.00: Apr 2013 – Mac 2016
 41. Assimilated computational synthesis of Li₂TMP₂O₇ (TM = Mn, Fe, Co) cathode conductors. Member of Project. RAGS/1/2014/SG06/UITM//5. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.
 42. Thionine/Graphene Nanocomposite Modified Gold Electrode Biosensor. Member of Project. RAGS/1/2014/SG06/UITM//4. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.
 43. Sugar-based Graphene Nanosheets Ultrasound Assisted Synthesis. Member of Project. RAGS/1/2014/SG06/UITM//3. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.

44. Quantum Dot Semiconductor Doped On Plasticized Cellulose Acetate Gel Polymer Electrolyte Dye Sensitized Solar Cells. Member of Project. RAGS/1/2014/SG06/UITM//1. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.
45. Enhanced Aging Effect Mg30 Gel Polymer Electrolytes Via Antioxidant Filler. Member of Project. RAGS/1/2014/SG02/UITM//5. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.
46. Dye-Sensitized Solar Cell via Graphene-ZnO Nanocomposite Film. Member of Project. RAGS/1/2014/SG02/UITM//4. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.
47. Nd-doped TiO₂ Dye-Sensitized Solar Cells via Theoretical Assimilated Experimental Approach. Member of Project RAGS/1/2014/SG02/UITM//2. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.
48. Structural and Electronic Studies Lanthanum Doped Lead Tin Zirconate Titanate (PSnZT). Member of Project. RAGS/1/2014/SG02/UITM//1. RM 80,0000. 01 Dec 2014 – 30 Nov 2016.
49. Optimization Preparation Conditions of Cellulose Nanocrystals (CNC)-based Banana (*Musa acuminata*) Stem Waste by alkaline treatment and bleaching method, Member of Project - FRGS/1/2013/STG01/UPNM, RM77,000, 01 Apr 2013 – 31 Mac 2016
50. First Principles Density Functional Theory Hubbard U Calculations Alkaline Metal Substituted BiFeO₃, Member of Project - FRGS/1/2013/STG01/UITM, RM83,000, 01 Apr 2013 – 31 Mac 2016
51. Upconversion Mechanism of Rare-Earth Doped Gd₂O₃:M (M=Er³⁺, Yb³⁺) Dye-Sensitized Solar Cells, Member of Project - FRGS/1/2014/ST02/UITM/02/2, RM79,000, 01 Jul 2014 – 30 Dec 2016
52. Study of intermolecular interaction between carbon nanotubes and π -conjugated molecules for ultrafast optical switching, Member of Project, RAGS/1/2015/SG0/UPNM/03/1– RM 45,000.00, 01 Jan 2016 – 31 Dec 2017.
53. First Principles and Experimental Approach of Heusler Alloys Co₂FeX (X=Al,Si,Ge and Ga). Member of Project. RAGS/1/2015/SG0/UITM/02/1, RM 51,000. 01 Dec 2015 – 30 Nov 2017.
54. Defects Mechanism of Cathode Li₂MnP₂O₇ Crystal Structure as-substituted by Transition Metals toward Excellent Current Collector. Member of Project. FRGS/1/2015/TK05/UITM/02/1. RM109,000. 02 Nov 2015 – 01 Nov 2017.
55. Interaction Mechanism of ZnS/CdSe Semiconducting Quantum Dot in Recombination Process of DSSC. Member of Project. FRGS/1/2015/SG06/UITM/02/5, RM108,200. 02 Nov 2015 – 01 Nov 2017.
56. Electron Transport Mechanism of Graphene-Zinc Oxide Semiconductor in Electron Injection of Dye-sensitized solar cells. Member of Project. FRGS/1/2015/SG06/UITM/02/2, RM108,200. 02 Nov 2015 – 01 Nov 2017.
57. The lasing properties of Energy Transfer for Stimulated Blue Emission of Multi-chromophores Chlorophyll: Rare Earth Complexes Model, Member of Project - FRGS/1/2016/STG07/UITM/03/2, RM69,000, 01 Aug 2016 – 30 Jul 2018
58. Ionic transport mechanism study of lithium based ionogel electrolytes, Member of Project, FRGS/1/2015/SG06/UPNM/03/2– RM 107,200.00, 19 Jun 2015 – 31 May 2018.
59. Study of Spin Polarization Distribution Co₂FeSi and CoFeSiX (X=Ag, Pt) Heusler Alloy, Member of Project - FRGS/1/2017/STG02/UITM/03/1, RM63,000, 15 Aug 2017 – 14 Aug 2019
60. Experimental and Ab-initio Studies of Effects of Gallium Substitution on Structural phase instability, electronic and multiferroic Properties in Nanoparticles Bi_{1-x}GaxFeO₃, Member of Project - FRGS/1/2016/STG02/UITM/02/2, RM74,150, 01 Aug 2016 – 30 Jan 2019
61. Strain Tuned ion (Li, Na) Migration in The Iron Hydrosulphate Cathode Material: A First Principles Investigation, **Head of Project**, FRGS/1/2017/STG07/UPNM/01/1 – RM 75,200.00, 15 Aug 2017 – 14 Aug 2019.
62. Thermoelectric properties characteristic of X₂Y₃ (X=Sb, Bi; Y=Te, Se) topological insulator, Member of Project, FRGS/1/2017/STG02/UITM/02/8 – RM 65,200.00, 15 Aug 2017 – 14 Aug 2019.
63. Structural and electronic properties of normal spinel cobalt oxide doped cadmium graphene composite electrodes, Member of Project, FRGS/1/2017/STG02/UITM/02/4– RM 60,000.00, 15 Aug 2017 – 14 Aug 2019.
64. Design of hybrid carbon Nanotube/Polythiophene Based Chemiresistive Sensor for VX-Type Nerve Agent Simulant, Member of Project, UPNM/2018/CHEMDEF/ST/3– RM 200,000.00, 01 Apr 2018 – 31 Mac 2020.
65. Detection of Choloin Gas Using Metal Oxide-Carbon Nanotubes Nanocomposites, Member of Project, UPNM/2018/CHEMDEF/ST/4– RM 240,000.00, 01 Apr 2018 – 31 Mac 2020.
66. Density Functional Theory and Experimental studies of Electrocatalytic Properties of XV₂S₄ (X = Ni, Cr, and Mo) Counter Electrode Dye-Sensitized Solar Cells, Member of Project - FRGS/1/2018/STG02/UITM/02/7, RM68,200, 01 Jan 2019 – 31 Dis 2020
67. Lattice Expansion of Ba(Ce,Zr)_{1-x}YxO_{3-d} Proton Conductor, Member of Project - TRGS/1/2016/UITM/02/1/3, Program Title; Synthesis, electrical properties and thermal expansion behaviour of Ba(Ce,Zr)O₃ electrolyte as proton conductor for an intermediate temperature solid oxide fuel cell, RM94,339, 01 Dec 2016 – 31 Aug 2020
68. Atomic-level mechanism of interconnect materials for electronic packaging in exposure to ionizing radiation, Member of Project - FRGS/1/2018/STG07/UPNM/02/1, RM86,000, 01 Jan 2019 – 31 Sep 2021
69. Mechanistic Insight on Atomic Structure and Electronic Properties of Multiferroic Bi_{1-x}GaxFeO₃ (x= 0,0.01,0.02,0.03) Thin Films: X-ray Photoelectron Spectroscopy (XPS) and First-principles Studies, Member of Project - FRGS/1/2018/STG02/UITM/02/2, RM98,200, 01 Jan 2019 – 31 Sep 2021
70. Enhanced ionic conductivities of cubic garnet-type ternary system Li₇La₃Zr₂O₁₂-Li₇La₃Sn₂O₁₂-Li₇La₃Hf₂O₁₂ as solid electrolytes for high voltage (5V) rechargeable lithium-ion batteries, Member of Project - FRGS/1/2019/TK05/UNIMAP/02/14, RM105,600, 01 Sep 2019 – 31 Mei 2022
71. Structural Study of Fast Lithium Ion Conduction in Halogen Doped Lithium Vanadium Phosphate Cathode, Member of Project - FRGS/1/2018/STG07/MOSTI//1, RM103,200, 01 Jan 2019 – 30 Sep 2022
72. Synthesis and Characterization of Hydrophobic Benzoyl Carrageenan Electrolyte, Member of Project - RACER/1/2019/STG01/UPNM//2, RM31,400, 01 Sep 2019 – 31 Mei 2022
73. Chitosan-based biocompatible piezoelectric thin film from shrimp shell waste for self-powered cardiac pacemaker,

- Member of Project - FRGS/1/2019/TK05/UIAM/02/7, RM81,480, 01 Sep 2019 – 31 Mei 2022
74. Synthesis, characterization and fabrication of bismuth oxyiodide thin film for non-toxic perovskite solar cells. Member of Project - FRGS/1/2019/STG07/UPNM/02/3, RM108,200, 01 Sep 2019 – 31 Mei 2022
75. Density Functional Theory and Experimental studies of Piezoelectric Properties Multiferroic BiFeO₃/Ag nanocomposite, Member of Project - FRGS/1/2019/STG02/UITM/02/3, RM99,700, 01 Sep 2019 – 31 Mei 2022
76. Structural modifications of agrowaste-derived disordered carbon via pyrolysis method for use in dual-carbon lithium batteries, Member of Project - FRGS/1/2019/STG07/UIAM/02/1, RM73,000, 01 Sep 2019 – 30 Nov 2022
77. The characterization of glycidopropyltrimethoxysilane and sodium dodecylbenzenesulfonates composite pretreatment coating in the corrosion protection of mild steel in NaCl solution Member of Project - FRGS/1/2018/STG07/UITM/01/1, RM100,000, 01 Jan 2019 – 31 Dis 2023

PUBLICATIONS:

Until: 03 March 2023

1. **Total of Publication (Scopus) – 217 / (Google Scholar) - 283**
2. **H-Indeks (Scopus) – 24 / H-Indeks (Google Scholar) - 28**
3. **Citation (Scopus) – 2,253 / Citation (Google Scholar) – 3,214**

YEAR 2023

1. Nur Miza Atikah Zulkafli, Muhamad Kamil Yaakob, Muhammad Haziq Ridzwan, Muhd Firdaus Kasim, Mohd Muzamir Mahat, Rozilah Rajmi, Mohamad Hafiz Mamat, Ahmad Azmin Mohamad, **Muhd Zu Azhan Yahya**, Insight into the role of atomic interaction and ionic radius in Al doped BiFeO₃: Structural, electronic, and optical properties, **Physica B: Condensed Matter, Vol. 648 (2023) 414417**
2. Hamzah, N.; Samat, M.H.; Johari, N.A.; Faizal, A.F.A.; Hassan, O.H.; Ali, A.M.M.; Zakaria, R.; Hussin, N.H.; **Yahya, M.Z.A.**; Taib, M.F.M. A DFT+U study of structural, electronic and optical properties of Ag- and Cu-doped ZnO, **Microelectronics International Vol. 40 (2023) 53 – 62.**
3. Raj, Abhishek; Kumar, Manish; Kumar, Arvind; Singh, Kedar; Sharma, Subhash; Singh, Ram C.; Pawar, Manish Singh; **Yahya M.Z.A.**; Anshul, Avneesh, Comparative analysis of 'La' modified BiFeO₃-based perovskite solar cell devices for high conversion efficiency, **Ceramics International Vol. 49 (2023) 1317 – 1327.**
4. Zaki, N.H.M., Ahmad, S.I., Sazman, F.N., ...Hassan, O.H., **Yahya, M.Z.A.**, The influence of Cl doping on the structural, electronic properties and Li-ion migration of LiFePO₄: A DFT study, **Computational and Theoretical Chemistry Vol. 1221 (2023) 114029**
5. Konwar, S., Singh, A., Singh, P.K., ...Agarwal, D., **Yahya, M.Z.A.**, Highly conducting corn starch doped ionic liquid solid polymer electrolyte for energy storage devices-RAFM 2022, **High Performance Polymers Vol. 35(1) (2023) 63–70**
6. Sharma, H., Tomar, R., Konwar, S., ...Agarwal, D., **Yahya, M.Z.A.**, Highly efficient ionic-liquid based solid polymer electrolyte for energy device (RAFM 2022) **High Performance Polymers Vol. 35(1) (2023) 56–62**
7. Sazman, F.N., Zaki, N.H.M., Badrudin, F.W., ...**Yahya, M.Z.A.**, Taib, M.F.M., First-principles approach to the structural, electronic and intercalation voltage of Prussian blue (K_xFe[Fe(CN)₆]) (x = 1, 2) as potential cathode material for potassium ion batteries, **Journal of Solid State Electrochemistry, 2023**
8. Dhawan, R., Singh, A., Kumar, S., ...**Yahya, M.Z.A.**, Serguei, S., Futuristic Approach Towards Replacement of Aqueous Electrolyte with Solid Polymer Electrolyte for Supercapacitor Applications, **Journal of Electronic Materials, 2023**
9. Rai, N., Singh, C.P., Ranjta, L., **Yahya, M.Z.A.**, XRD, DSC, and Dielectric Studies of MWNT-Doped Polymer Electrolytes for Supercapacitor Application **Journal of Electronic Materials, 2023**
10. Singh, A., Nath, G., Dhapola, P.S., ...**Yahya, M.Z.A.**, Joshi, B., Biomass stemmed activated carbon electrodes toward a significant electric double-layer capacitor, **Materials for Renewable and Sustainable Energy, 2023**

YEAR 2022

11. Abhimanyu Singh, Pawan Singh Dhapola, Sushant Kumar, Subhrajit Konwar, Pramod K.Singh, A.M.M.Ali, Daksh Agarwal, Diksha Singh, **M.Z.A.Yahya**, Serguei V.Savilov, Bhawana Joshi. Highly conducting ionic liquid doped polymer electrolyte for energy storage applications, **Journal of Science: Advanced Materials and Devices, Vol. 7(4) (2022) 100511**
12. MZ Mohyeden, MFM Taib, NA Malik, NN Alam, M Mustafa, AMM Ali, OH Hassan, BU Haq, **MZA Yahya**, First-principles calculations of electronic and optical properties of orthorhombic Bi₂Se₃ nano thin film, **Computational Condensed Matter Vol. 30 (2022) e00618.**
13. Ainnur Izzati Kamisan, Tunku Ishak Tunku Kudin, Ainnur Sherene Kamisan, Ahmad Firdaus Che Omar, Mohamad Fariz Mohamad Taib, Oskar Hasdinor Hassan, Ab Malik MarwanAli, **Muhd Zu AzhanYahya**, Recent advances on graphene-based materials as cathode materials in lithium-sulfur batteries: A Review, **International Journal of Hydrogen Energy Vol. 47(13) (2022)**, pp. 8630–8657.
14. M.H.Samat, M.F.M.Taib, O.H.Hassan, N.H.Hussin, D.T.Mustaffa, N.K.Jaafar, R.Zakaria, **M.Z.A.Yahya**, A.M.M.Ali Influence of Nd concentrations on the structural, electronic and optical properties of anatase TiO₂: A first-principles

approach, **Computational Condensed Matter, Volume 31 (2022) e00672**

15. Ismail, I., Harun, M.K., **Yahya, M.Z.A.** Electrochemical analysis of silane incorporated sodium dodecylbenzene sulphate: zinc sulphate pre-treatment on mild steel and its effect on epoxy coating performance, **Corrosion Engineering Science and Technology Vol. 57(3) (2022) 204-213.**
16. NA Johari, N Hamzah, AFA Faizal, MH Samat, OH Hassan, AMM Ali, **MZA Yahya**, MFM Taib, Effects of Hubbard U correction on the structural and electronic properties of rutile, anatase and brookite TiO₂, **Materials Today: Proceedings, 2022. Doi 10.1016/j.matpr.2022.06.192**
17. MSS Ari, SZZ Abidin, MFM Taib, **MZA Yahya**, NI Ali, NSM Rafi, Mechanistic Insight of Ionic Conduction on Agarose and Poly(1-vinylpyrrolidone-co-vinyl-acetate) [P(VP-co-VAc)] based Polymer Gel Electrolytes by Incorporating Lithium Bis(oxalato) Borate [LiBOB], **International Journal of Electrochemical Science Vol. 17 (2022) 220726**

YEAR 2021

18. N.N. Alam, N.A. Malik, M.H. Samat, N.H. Hussin, N.K. Jaafar, A. Radzwan, M.Z. Mohyedin, B.U. Haq, A.M.M. Ali, O.H.Hassan, **M.Z.A. Yahya**, M.F.M. Taib, Underlying mechanism of surface (001) cubic ATiO₃ (A = Pb, Sn) in enhancing thermoelectric performance of thin-film application using density functional theory, **Surfaces and Interfaces Vol. 27 (2021) 101524**
19. MK Yaakob, NMA Zulkifli, MF Kasim, MH Mamat, AA Mohamad, L Lu, **MZA Yahya**, Structural phase instability, mixed-phase, and energy band gap change in BiFeO₃ under lattice strain effect from first-principles investigation, **Ceramics International Vol. 47(9) (2021) 12592-12599.**
20. Khuzaimah Nazir, Sharifah Nafisah Syed Ismail, Nabilah Akemal Muhd Zailani, **Muhd Zu Azhan Yahya**, and Ab Malik Marwan Ali Effect of ethylene carbonate (EC) plasticizer on epoxidized 30% poly(methyl methacrylate)-grafted natural based polymer electrolytes for lithium batteries, **AIP Conference Proceedings Vol. 2332 (2021) 100002** ; <https://doi.org/10.1063/5.0043681>
21. I. Ismail, M.K. Harun and **M.Z.A. Yahya**, The Inhibition Mechanism of Surfactant Composite for Mild Steel Corrosion in NaCl Solution, **ASM Science Journal Vol. 14 (2021) 1-7**, <https://doi.org/10.32802/asmscj.2020.507>
22. NHM Zaki, A M M Ali, MK Yaakob, MFM Taib, OH Hassan, A. Lepit and **MZA Yahya** Structural and electronic properties of nickel doped cobalt oxide electrode for supercapacitors: A first principle study, **IOP Conf. Ser.: Earth Environ. Sci. Vol. 685 (2021) 012029**
23. I Ismail, MK Harun, **MZA Yahya**, Effect of ph and immersion time on the corrosion protection of sdbz:Znso4 pretreated mild steel in sodium chloride solution, **Solid State Phenomena, Vol. 317 SSP (2021) 491-497.**

YEAR 2020

24. MZ Mohyedin, NA Malik, MFM Taib, M Mustafa, OH Hassan, AMM Ali, BU Haq, **MZA Yahya**, First principles study of structural, electronic and optical properties of orthorhombic phase Ni-doped Bi₂Se₃ using density functional theory, **Computational Condensed Matter, Vol. 25 (2020) e00510.**
25. MZ Mohyedin, MFM Taib, A Radzwan, A Shaari, M Mustafa, BU Haq, **MZA Yahya**, First principles study of the effect of spin-orbit coupling on thermoelectric properties of Bismuth telluride, **Computational and Theoretical Chemistry, Vol. 1182 (2020)112851.**
26. MZ Mohyedin, MFM Taib, A Radzwan, M Mustafa, A Shaari, OH Hassan, AMM Ali, BU Haq, **MZA Yahya**, Enhanced mechanism of thermoelectric performance of Bi₂Se₃ using density functional theory, **Materials for Renewable and Sustainable Energy, Vol.9 (2020) 15.**
27. RM Ali, OH Hassan, AMM Ali, MFM Taib, **MZA Yahya**, Electrochemical properties of pyrolysed graphene/activated carbon composite doped with FeTMPP-Cl as electrode materials, **Ionics, Vol. 26(6) (2020) 2825-2834.**
28. MH Samat, MFM Taib, OH Hassan, **MZA Yahya**, First-principles study on XV₂S₄ (X= Ni, Cr, and Mo) counter electrode for dye-sensitized solar cells, **Emergent Materials, Vol. 3 (2020) 125-131.**
29. NS Samsi, NAS Affendi, MK Yaakob, MFM Taib, A Lepit, OH Hassan, **MZA Yahya**, AMM Ali, Characteristics of Electron Transport Study of Compositing Graphene-Zinc Oxide Thin Film Photoanode for Dye-Sensitized Solar Cells, **Solid State Phenomena, Vol. 307 (2020) 185-191.**
30. SZN Demon, AI Kamisan, N Abdullah, SAM Noor, OK Khim, NAM Kasim, **MZA Yahya**, NAA Manaf, AFM Azmi, NA Halim, Graphene-based Materials in Gas Sensor Applications: A Review, **Sensors and Materials, Vol. 32 (2020) 759-777.**
31. Mohamad Firdaus Rosle, Fadhlul Wafi Badrudin, Siti Munirah Hasanaly, Siti Aminah Mohd Noor, Mohamad Fariz Mohamad Taib, **Muhd Zu Azhan Yahya**, Benefits of Molybdenum Substitution in Na₃V₂(PO₄)₃ Cathode Material for Sodium Ion Batteries: A First Principles Study, **International Journal of Nanoelectronics and Materials, Vol. 13 (2020) 235-242.**
32. NZS Noreainia, OH Hassan, AMM Ali,.....**MZA Yahya**, MFM Taib, Structural, microstructure, dielectric and magnetic behavior of Ga substituted BiFeO₃, **International Journal of Nanoelectronics and Materials Vol. 13 (2020) 267-274.**
33. MZ Mohyedin, MFM Taib, A Radzwan,.....OH Hassan, **MZA Yahya**, First-principles study of structural, electronic and thermoelectric properties of Ni-Doped Bi₂Se₃ | Kajian prinsip pertama tentang sifat struktur, elektronik dan termoelektrik bagi Bi₂Se₃ Ni-Terdop, **Sains Malaysiana Vol. 49(11) (2020) 2821-2832.**
34. MH Samat, MFM Taib, OH Hassan, **MZA Yahya**, AMM Ali, First-principles calculations on structural, electronic and optical properties of Ce-, Nd- and Er-doped TiO₂, **International Journal of Nanoelectronics and Materials Vol. 13 (2020) 301-308**
35. MFM TAIB, MH Samat, SZN Demon,.....**MZA Yahya**, AMM Ali, First-principles study on the doping effects of La on the structural, electronic and optical properties of MgO, **International Journal of Nanoelectronics and Materials Vol. 13**

YEAR 2019

36. MS Sazali, MK Yaakob, Z Mohamed, MH Mamat, NHM Kaus, **MZA Yahya**, Chitosan assisted hydrothermal synthesis of multiferroic BiFeO₃: Effects on structural, magnetic and optical properties, **Results in Physics**, Vol. 15 (2019) 102740.
37. MSM Shukri, MNS Saimin, MK Yaakob, **MZA Yahya**, MFM Taib, Structural and Electronic properties of CO and NO gas molecules on Pd-doped vacancy graphene: A first principles study, **Applied Surface Science**, Vol 494 (2019) 817-828.
38. MFM Taib, DT Mustaffa, NH Hussin, OH Hassan, **MZA Yahya**, First pinciples study on Zn doped MgO using Hubbard U correction, **Materials Research Express**, Vol 6 (2019) 094012.
39. M Mustaffa, S Ahmad, MIHM Nasrudin, KA Sekak, NA Aini, AMM Ali, MFM Taib, **MZA Yahya**, OH Hassan, AK Razali, MHM Jais, Data mining analysis on ships collision risk and marine traffic characteristic of Port Klang Malaysia waterways from automatic identification system (AIS) data, **Lecture Notes in Engineering and Computer Science**, Vol. 2239 (2019) 242-246.
40. I Ismail, MK Harun, **MZA Yahya**, Corrosion protection of mild steel by the synergetic effect of Sodium Dodecylbenzenesulfonates and Zinc Sulfate in Sodium Chloride solution, **International Journal of Electrochemical Science**, Vol. 14 (2019) 11491-11491.
41. NAM Nasir, FW Badrudin, A Idrus, FN Sazman, MFM Taib, **MZA Yahya**, First-principles study on structural and electronic properties of Prussian blue cathode material for sodium-ion battery, **Molecular Crystals and Liquid Crystals**, Vol. 693(1) (2019) 115-122.
42. R. Husin, FW Badrudin, MFM Taib, **MZA Yahya**, Effects of strai on electronic and optical properties of LiNbO₃: A first principles study, **Materials Research Express**, Vol 6 (2019) 114002.
43. NAM Zailani, FA Latif, AMM Ali, MAA Rani, **MZA Yahya**, The structural and electrical properties of flexible PMMA/LiTf films., **International Journal of Recent Technology and Engineering**, Vol. 8 (2019) 3137-3143.
44. M.A. Azam, N.S.A. Manaf, Q. Ahsan, O.H. Hassan, **M.Z.A. Yahya**, Lithium-Ion Supercapacitor using Vertically-Aligned Carbon Nanotubes from Direct Graowth Technique, and Its Electrochemical Characteristics, **Portugalie Electrochimica Acta**, Vol. 37 (2019) 167-178
45. M.K. Yaakob, M.H. Ridzwan, M.F.M. Taib, L. Li, O.H. Hassan, **M.Z.A. Yahya**, First Principles Investigation of the Ground State, Structural Phase Transition, and magnetic Ordering of Strained BiVO₃, **Journal of Applied Physics**, Vol. 125 (2019) 082532
46. NC Su, SAM Noor, MF Roslee, NS Mohamed, A Ahmad, **MZA Yahya**, Potential complexes of NaCF₃SO₃-tetraethylene dimethyl glycol ether (tetraglyme)-based electrolytes for sodium rechargeable battery application, **Ionics** Vol. 25 (2019) 541-549
47. MH Samat, AMM Ali, MFM Taib, OH Hassan, **MZA Yahya**, Structural and electronic properties od TiO₂ polymorphs with effective on-site coulomb repulsion term: DFT+U approaches, **Materials Today Proceedings**, Vol. 17 (2019) 472-483.
48. MH Ridzwan, MK Yaakob, MFM Taib, AMM Ali, OH Hassan, **MZA Yahya**, Structural, electronic and magnetic properties of Ca, Sr and Ba heterovalent A-site ion substitution in BiFeO₃ with different Fe oxidation states, **Materials Today Proceedings**, Vol. 17 (2019) 686-691.
49. Jamil, N.W.Z., **Yahya, M.Z.A.**, Jumal, J., Kasim, N.A.M. Liquid polymeric membrane composition of ion selective electrode based on thiazole-4-carboxamide as ionophore, **AIP Conference Proceedings** Vol. 2068 (2019) 5089363

2018

50. Zailani, N.A.M., Latif, F.A., Ali, A.M.M., Rani, M.A.A., **Yahya, M.Z.A.** Synthesis of flexible acrylates films, **AIP Conference Proceedings**, Vol. 2030 (2018) 020119
51. Abidin, S.Z.Z., Ari, M.S.S., Navaratnam, S., Jaafar, N.K., **Yahya, M.Z.A.** Ionic conduction mechanism of potato starch-based biopolymer electrolytes complexed with potassium hydroxide, **AIP Conference Proceedings**, Vol. 2030 (2018) 020023
52. Jaafar, N.K., Abidin, S.Z.Z., Ali, A.M.M., Saat, A., **Yahya, M.Z.A.** The effects of ceramic fillers on chitosan grafted PMMA based polymer electrolyte, **AIP Conference Proceedings**, Vol. 2030 (2018) 020061
53. Hussin, N.H., Taib, M.F.M., Hassan, O.H., **Yahya, M.Z.A.**, Zakaria, R. Study of geometrical and electronic structure of lanthanum doped PbTiO₃ and PbZrTiO₃ : First principles calculation, **AIP Conference Proceedings** Vol. 2030 (2018) 020032
54. Samat, M.H., Taib, M.F.M., Jaafar, N.K., (...), **Yahya, M.Z.A.**, Ali, A.M.M. First-principles studies on phase stability of TiO₂ by using GGA+U calculations, **AIP Conference Proceedings** Vol. 2030 (2018) 020058
55. Alkhair, K.B., Hassan, O.H., Mohamed, S.A.S., (...), Rahman, Z.A., **Yahya, M.Z.A.** Palm oil mill effluent's microbial fuel cell's optimisation procedure by using two-level factorial design method and chemical oxygen demand treatment, **Journal of Oil Palm Research**, Vol. 30(3) (2018) 503-514
56. MA Saad, NS Samsi, OH Hassan, **MZA Yahya**, MFM Taib, R Zakaria, Quantum dot solar cell studies on the influence of Cadmium Selenide (CdSe) QDs and the Zinc Sulfide (ZnS) QDs in the photoanode, **MATEC Web of Conferences** Vol. 154 (2018) 01039
57. MA Saad, NS Samsi, OH Hassan, **MZA Yahya**, MFM Taib, R Zakaria, Studies of the absorbance peak on the N719 dye influence by combination between Cadmium Selenide (CdSe) QDs and Zinc Sulfide (ZnS) QDs, **MATEC Web of Conferences** Vol. 154 (2018) 01040
58. AN Alias, ZM Zabidi, N Ramlee, Y Yaacob, SHN Alshuridin, AMM Ali, **MZA Yahya**, Electrical Dielectric Permittivity and Conductivity Analysis of Poly (N-Carbazole)(PVK) Blending with Polyvinylpyrrolidone (PVP), **Key Engineering Materials** Vol. 762 (2018) 244-248
59. MNAG Yolhamid, F Ibrahim, MAUA Abu Zarim, R Ibrahim, S Adnan, **MZA Yahya**, The Novel Usage of Nitrocellulose as

- a Propellant of 5.56 mm Bullet, **Solid State Phenomena Vol. 280 (2018) 361-367**
60. R Zakaria, OH Hassan, **MZA Yahya**, MFM Taib, AMM Ali, Comparison of conductivity performance of dragon fruit dye extracted using water and ethanol for dye sensitized solar cells, **International Journal of Engineering and Technology(UAE) Vol. 7(3) (2018) 126-128**
 61. NHM Zaki, M Mustafa, MFM Taib, OH Hassan, **MZA Yahya**, AMM Ali, Understanding the electronic transition of normal spinel structure of Co₃O₄ using GGA+U calculations, **International Journal of Engineering and Technology(UAE) Vol. 7(3) (2018) 121-125**
 62. AF Aziz, K Nazir, SF Ayub, NI Adam, **MZA Yahya**, AMM Ali, Electrochemical properties of polymer electrolytes treated with 6PPD on 30% poly(Methyl methacrylate) grafted natural rubber | [Sifat elektrokimia elektrolit polimer 30% poli(Metil metakrilat) cangkutan getah asli terawat dengan 6PPD], **Malaysian Journal of Analytical Sciences Vol. 22(3) (2018) 491-498**
 63. KB Alkhair, OH Hassan, SAS Mohamed, YKC Andrew, ZA Rahman, TIT Kudin, AMM Ali, **MZA Yahya**, MH Zainal Comparative study of microbial fuel cell's performance using three different electrodes | [Kajian perbandingan bagi prestasi sel bahan bakar mikro menggunakan tiga elektrod yang berbeza] **Malaysian Journal of Analytical Sciences Vol. 22(3) (2018) 499-507**

2017

64. S.A.M. Nor, N.C. Su, L.T. Khoon, N.S. Mohamed, A. Ahmad, **M.Z.A. Yahya**, H. Zhu, M. Forsyth, D.R. MacFarlane, Properties of High Na-Ion Content N-Propyl-N-Methylpyrrolidinium Bis(Fluorosulfonyl)Imide -Ethylene Carbonate Electrolytes, **Electrochimica Acta, Vol. 247 (2017) 983 -993**.
65. Targholi, E., Mousavi-Khoshdel, S.M., Rahmanifara, M., **Yahya, M.Z.A.**, Cu- and Fe-hexacyanoferrate as cathode materials for Potassium ion battery: A First-principles study, **Chemical Physics Letters, Vol. 687 (2017) 244-249**.
66. Ramly, N.N., Aini, N.A., Sahli, N., Aminuddin, S.F., **Yahya, M.Z.A.**, Ali, A.M.M. Dielectric behaviour of UV-crosslinked sulfonated poly (ether ether ketone) with methyl cellulose (SPEEK-MC) as proton exchange membrane, **International Journal of Hydrogen Energy Vol. 42(14) (2017) 9284-9292**
67. Samat, M.H., Taib, M.F.M., Hassan, O.H., **Yahya, M.Z.A.**, Ali, A.M.M. Structural, electronic and optical properties of brookite phase titanium dioxide, **Materials Research Express Vol. 4(4) (2017) 044003**
68. Ridzwan, M.H., Yaakob, M.K., Taib, M.F.M., (...), Hassan, O.H., **Yahya, M.Z.A.** Investigation of structural, electronic and optical properties of hexagonal LuFeO₃ using first principles LDA + U, **Materials Research Express Vol. 4(4) (2017) 044001**
69. Azhar, N.S., Taib, M.F.M., Hassan, O.H., **Yahya, M.Z.A.**, Ali, A.M.M. Structural, electronic and optical properties of Bi₂O₃ polymorphs by first-principles calculations for photocatalytic water splitting, **Materials Research Express Vol. 4(3) (2017) 034002**
70. Zailani, N.A.M., Latif, F.A., Ali, A.M.M., Zainuddin, L.W., Kamaruddin, R., **Yahya, M.Z.A.** Effect of ionic liquid incarceration during free radical polymerization of PMMA on its structural and electrical properties, **Ionics Vol. 23(2) (2017) 295-301**
71. Hussin, N.H., Taib, M.F.M., Hassan, O.H., **Yahya, M.Z.A.** Theoretical study of PbZrTiO₃ and PbSnZrTiO₃ using a total-energy planewave-pseudopotential method **Materials Research Express Vol. 4(7) (2017) 074001**
72. Mohamad, A.A., Hassan, M.S., Yaakob, M.K., (...), Hassan, O.H., **Yahya, M.Z.A.** First-principles calculation on electronic properties of zinc oxide by zinc-air system, **Journal of King Saud University - Engineering Sciences Vol. 29(3) 278-283**
73. Alias, A.N., Ali, A.M.M., **Yahya, M.Z.A.**, Electronic properties of polyvinylpyrrolidone (PVP) using semi-empirical calculation (Book Chapter) **Advances in Materials Science Research Vol. 28 (2017) 173-201**
74. Suhaili, N., Taib, M.F.M., Yaakob, M.K., Hassan, O.H., **Yahya, M.Z.A.** Properties of Lead-Free Hybrid Organic-Inorganic Halide Perovskite CH₃NH₃BX₃ Using Density Functional Theory **Materials Today: Proceedings Vol. 4(4) (2017) 5154-5160**
75. Badrudin, F.W., Taib, M.F.M., Mustapha, R.I.P.R., Hassan, O.H., **Yahya, M.Z.A.** Effects of Vanadium Substitution in the Layered LiFeSO₄OH: A First Principles Investigation **Materials Today: Proceedings Vol. 4(4) (2017) 5108-5115**
76. HM Zaki, ZS Mahmud, OH Hassan, **MZA Yahya**, AMM Ali, A symmetric supercapacitor based on 30% poly (methyl methacrylate) grafted natural rubber (MG30) polymer and activated carbon electrodes, **AIP Conference Proceedings Vol. 1875 (1) (2017) 020016**
77. NH Hussin, MFM Taib, MH Samat, N Jon, OH Hassan, **MZA Yahya**, Study of Structural, Electronic and Optical Properties of Lanthanum Doped Perovskite PZT Using Density Functional Theory, **Applied Mechanics and Materials Vol. 864 (2017) 127-132**
78. AF Aziz, K Nazir, SF Ayub, NI Adam, **MZA Yahya**, AMM Ali, Effect of Phenylene Diamine Antioxidant on Physico-Chemical Properties of Methyl Grafted Natural Rubber Polymer Electrolytes, **Applied Mechanics and Materials Vol. 864 (2017) 48-53**
79. MA Ibrahim, NAM Jani, OH Hassan, F Abdullah, TIT Kudin, AMM Ali, **MZA Yahya**, FTIR Spectrum Investigation of Thionine-Graphene Nanocomposite, **Applied Mechanics and Materials Vol. 864 (2017) 42-47**.
80. Nazir, K., Aziz, A.F., **Yahya, M.Z.A.**, Ali, A.M.M, Ionic conductivity studies of epoxidized poly (methyl methacrylate)-grafted natural rubber based gel polymer electrolyte for dye sensitized polymer solar cell, **AIP Conference Proceedings, Vol. 1877 (2017) 040003**.
81. Zakaria, R., Ahmad, A.H., Taib, M.F.M., (...), **Yahya, M.Z.A.**, Ali, A.M.M., Correlation studies between surface tension energy and ionic mobility in silicone - Dammar thin film for dye sensitized solar cells, **AIP Conference Proceedings, Vol. 1877 (2017) 050002**.
82. Effendi, N.A.S., Samsi, N.S., Zawawi, S.A., (...), **Yahya, M.Z.A.**, Ali, A.M.M. Studies on graphene zinc-oxide

nanocomposites photoanodes for high-efficient dye-sensitized solar cells, **AIP Conference Proceedings, Vol. 1877 (2017) 090005.**

83. Abidin, S.Z.Z., Ali, A.M., Jaafar, N.K., **Yahya, M.Z.A.**, Electrical properties of cellulose acetate-based polymer gel electrolytes, **AIP Conference Proceedings, Vol. 1885 (2017) 020088.**
84. Muhammad Aidil Ibrahim, Nur Atikah M Jani, Oskar Hasdinor Hassan, F Abdullah, TIT Kudin, Ab Malik Marwan Ali, **MZA Yahya**, FTIR Spectrum Investigation of Thionine-Graphene Nanocomposite, **Applied Mechanics and Materials Vol. 864 (2017) 42-47**
85. AN Alias, ZM Zabidi, AMM Ali, **MZA Yahya**, Effect of Host Polymer Blends To Phosphorescence Emission, **Journal of Fundamental and Applied Sciences Vol. 9 (6S), 524-537.**

YEAR 2016

86. MH Samat, AMM Ali, MFM Taib, OH Hassan, **MZA Yahya**, Hubbard U calculations on optical properties of 3d transition metal oxide TiO₂, **Results in Physics, Vol. 6 (2016) 891-896**
87. F.W. Badrudin, M.S.A. Rasiman, M.F.M. Taib, O.H. Hassan, **M.Z.A. Yahya**, Effect of lithium intercalation on the structural and electronic properties of layered LiFeSO₄OH and layered FeSO₄OH using first-principle calculations, **Computational Materials Science, Vol. 119 (2016) 144-151.**
88. NS Abdul Satar, AW Aziz, MK Yaakob, **MZA Yahya**, OH Hassan, TIT Kudin, N Kaus, Experimental and First Principles Investigations of Lattice Strain Effect On Electronic and Optical Properties of Biotemplated BiFeO₃ Nanoparticles, **The Journal of Physical Chemistry C, Vol. 120 (45) (2016) 26012 - 26020**
89. KH Kamaruddin, AFZ Abedin, NA Zabidi, **MZA Yahya**, MFM Taib, AN Rosli, First Principles Calculation of ε-Phase of Solid Oxygen, **Acta Physica Polonica A, Vol. 129 (4) (2016) 468-471**
90. F Md Jamil, MA Sulaiman, SM Ibrahim, AK Masrom, **MZA Yahya**, Effect of Loading Amount of Glucose Precursor on Mesoporous Carbon Surface Area for Supercapacitor Electrode Application, **Materials Science Forum, Vol. 857 (2016) 101-105**
91. SMM Razalli, S Saaid, TIT Kudin, **MZA Yahya**, OH Hassan, AMM Ali, Electrochemical Properties of Glyme Based Plasticizer on Gel Polymer Electrolytes Doped with Lithium Bis (Trifluoromethanesulfonyl) Imide, **Materials Science Forum, Vol. 846 (2016) 534-538**
92. NS Samsi, R Zakaria, OH Hassan, **MZA Yahya**, AMM Ali, X-Ray Diffraction and Infrared Studies on Plasticized Cellulose Acetate Complexed with Ammonium Iodide for Solid Polymer Electrolyte, **Materials Science Forum, Vol. 846 (2016) 523-527**
93. MH Samat, NH Hussin, MFM Taib, MK Yaakob, NS Samsi, SSSA Aziz, **MZA Yahya**, AMM Ali, Structural, Electronic and Optical Properties of Nd-Doped Anatase TiO₂ for Dye-Sensitized Solar Cells from Density Functional Theory, **Materials Science Forum, Vol. 846 (2016) 726-733**
94. M.H. Samat, N.H. Hussin, M.F.M. Taib, M.K. Yaakob, N.S. Samsi, S.S.S.A. Aziz, **M.Z.A Yahya**, A.M.M. Ali, *First Principles Study on Structural, Electronic and Optical Properties of TiO₂ for Dye-Sensitized Solar Cells Photoanode*, **Materials Science Forum, Vol. 846 (2016) 719-725.**
95. N.H. Hussin, M.F.M. Taib, F.W. Badrudin, N.A. Johari, N. Salleh, **M.Z.A Yahya**, O.H. Hassan, *First Principles Study on Structural, Electronic Properties of PZT and PSnZT using Density Functional Theory*, **Materials Science Forum, Vol. 846 (2016) 734-739.**
96. MNS Saimin, SSSA Aziz, AMM Ali, OH Hassan, **MZA Yahya**, MFM Taib, Structural and Magnetic Study on the Effect of Substitution of Cobalt by d-Valent Elements of Co₂FeSi Heusler Alloy, **Key Engineering Materials, Vol. 708 (2016) 37-41**
97. NH Hussin, MNS Saimin, N Salleh, OH Hassan, **MZA Yahya**, MFM Taib, An Investigation on the Effect of La³⁺ Alteration on Structural Properties of Perovskite PbTiO₃: Total Energy Calculation, **Key Engineering Materials, Vol. 708 (2016) 42-45**
98. Al Kamisan, LW Zainuddin, AS Kamisan, T Kudin, TI Al Irsyad, OH Hassan, **MZA Yahya**, Ultrasonic Assisted Synthesis of Reduced Graphene Oxide in Glucose Solution, **Key Engineering Materials, Vol. 708 (2016) 25-29**
99. F Md Jamil, M Ali Sulaiman, S Mohd Ibrahim, AK Masrom, **MZA Yahya**, Effects of Different Electrolyte Concentrations and Scan Rates in Mesoporous Carbon Electrode-Based Capacitance, **Advanced Materials Research, Vol. 1133 (2016) 3-7**
100. Kamaruddin, K.H., Zabidi, N.A., Rosli, A.N., **Yahya, M.Z.A.**, Taib, M.F.M. *Electronic structure and phase stability of low-temperature Ba(Fe_{1-x}Ni_x)₂As₂ superconductor*, **AIP Conference Proceedings Vol. 1787 (2016) 05001**
101. Zainal, M.H., Hassan, O.H., Ab Samad, L.S., Ali, A.M.M., **Yahya, M.Z.A.** *Energy conversion from biodegradation of non-thermal pre-treated algae biomass for microbial fuel cell*, **Journal of Mechanical Engineering Vol. 13(1) (2016) 25-31**
102. Ramly, N.N., Ali, A.M.M., Sahli, N., **Yahya, M.Z.A.**, Aminuddin, S.F., Mohamad, N.A. *Physical properties analysis of UV-crosslinked sulfonated poly ether ether ketone and methyl cellulose*, **Journal of Mechanical Engineering Vol. 13(2) (2016) 99-111**
103. MH Zainal, SAS Mohamad, TIT Kudin, HM Ameran, NKA Kamaluzaman, OH Hassan, AMM Ali, **MZA Yahya**, Bioenergy Production from Freeze Dried Chlorella Vulgaris Biomass Via Microbial Fuel Cell, **Journal of Thermal Engineering Vol. 2 (6) (2016) 1029-1033**
104. Amirah Amalina Ahmad Tarmizi, Mohamad Kamal Harun, Saifollah Abdullah, Hadariah Bahron, **Muhd Zu Azhan Yahya**, Sabrina M Yahaya, Nurul Huda Abdul Halim, The Effect of Oxalic Acid as A Doping Agent On the Conductivity of Polyaniline, **Scientific Research Journal Vol. 13 (1) (2016) 16-23**

YEAR 2015

105. M.K Yaakob, M.F.M Taib, O.H Hassan, **M.Z.A Yahya**, *Low-energy phases, electronic and optical properties of Bi_{1-x}LaxFeO₃ solid solution: Ab-initio LDA+ U studies*, **Ceramics International**, Vol. 41(2015) 10940 -10948.
106. AN Alias, ZM Zabidi, MK Harun, **MZA Yahya**, AMM Ali, *Optical Transition, Excitation, and Emission Properties of Poly (N-Vinylcarbazole) Blended with Poly (Vinylidene Fluoride-co-Hexafluoropropene) and Polyvinylpyrrolidone*, **Acta Physica Polonica A**, Vol. 127 (4) (2015) 1075-1078.
107. M.K Yaakob, M.F.M Taib, O.H Hassan, **M.Z.A Yahya**, *Self Interaction corrected LDA+U investigations of BiFeO₃ properties: Plane Wave pseudopotential method*, **Materials Research Express**, Vol. 2 (2015) 116101.
108. MA Azam, NH Jantan, N. Dorah, TIT Kudin, **MZA Yahya**, *Activated carbon and single-walled carbon nanotube based electrochemical capacitor in 1M LiPF₆ electrolyte*, **Materials Research Bulletin**, Vol. 69 (2015) 20-23.
109. I Ismail, MK Harun, **MZA Yahya**, *Effects of Dissolved Oxygen on the Integrity of Industrial Chlorinated Rubber-Based Primer Used In Rubber/Metal Composites*, **Rubber Chemistry and Technology**, Vol. 88(3) (2015) 502-514, doi: <http://dx.doi.org/10.5254/rct.15.84905>
110. N.S. Samsi, R. Zakaria, O.H. Hassan, **M.Z.A. Yahya**, A.M.M. Ali, *Optical behavior of NH₄I doped cellulose acetate membrane for dye sensitized solar cell*, **Malaysian Journal of Analytical Sciences**, Vol. 19 (4) (2015) 760-765.
111. S.M. Razalli, S.I.Y.S.M. Saaid, A.M.M. Ali, O.H. Hassan, **M.Z.A. Yahya**, *Cellulose acetate-lithium bis(trifluoromethanesulfonyl)imide solid polymer electrolyte: ATR:FTIR and ionic conductivity behavior*, **Functional Materials Letters**, Vol. 8(3) (2015) 1540017.
112. AS Kamisan, AI Kamisan, AIT Kudin, T Ishak, AMM Ali, OH Hassan, **MZA Yahya**, *Glucose-Reduced MnO₂/Graphene Composites Electrode for Supercapacitor*, **Advanced Materials Research** Vol. 1108 (2015) 39-43.
113. FW Badrudin, MSA Rasiman, MFM Taib, NH Hussin, OH Hassan, **MZA Yahya**, *First Principles Study on Structural and Electronic Properties of LiFeSO₄F Cathode Material for Lithium Ion Batteries*, **Advanced Materials Research** Vol. 1107 (2015) 508-513
114. K Nazir, SF Ayub, A Fairoz Aziz, R Zakaria, **MZA Yahya**, AMM Ali, *Conductivity and thermal behaviour of epoxidized-30% poly (methyl methacrylate)-grafted natural rubber-lithium triflate based solid polymer electrolytes*, **Advanced Materials Research** Vol. 1107 (2015) 175-180.
115. ZS Mahmud, NHM Zaki, R Zakaria, **MZA Yahya**, AMM Ali, *Conductivity-Temperature Dependent Studies on MG49 Doped Lithium Triflate Salt*, **Advanced Materials Research** Vol. 1107 (2015) 181-186.
116. MSA Rasiman, FW Badrudin, MK Yaakob, MFM Taib, AMM Ali, **MZA Yahya**, OH Hassan, *An Investigation of Structural and Electronic Properties of Novel Cathode Material Li₂MnP₂O₇ and its Delithiated Li_{2-x}MnP₂O₇ (x= 1, 2): A First Principle Study*, **Advanced Materials Research** Vol. 1107 (2015) 485-490.
117. AI Kamisan, AS Kamisan, R Md Ali, T Kudin, T Ishak, OH Hassan, **MZA Yahya**, *Synthesis of Graphene via Green Reduction of Graphene Oxide with Simple Sugars*, **Advanced Materials Research** Vol. 1107 (2015) 542-546.
118. SF Ayub, R Zakaria, K Nazir, AF Aziz, **MZA Yahya**, AMM Ali, *The Effect of LiCF₃SO₃ Complexed MG30-PEMA Blend Solid Polymer Electrolyte*, **Advanced Materials Research** Vol. 1107 (2015) 158-162.
119. AF Aziz, K Nazir, SF Ayub, R Zakaria, **MZA Yahya**, AMM Malik, *Impedance Behavior of Treated Methyl-Grafted Natural Rubber Polymer Electrolytes*, **Advanced Materials Research** Vol. 1107 (2015) 175-180.

YEAR 2014

120. M.K. Yaakob, M.F.M. Taib, M.S.M. Deni, **M.Z.A. Yahya**, *Ab Initio on the Structural and Electronic Properties of Bismuth Ferrite Based on Ferroelectric Hexagonal Phase and Paraelectric Orthorhombic Phase*, **Integrated Ferroelectrics**, Vol.155 (2014) 134-142.
121. F.D. Mansor, M.K. Yaakob, M.F.M. Taib, T.I.T. Kudin, O.H. Hassan, **M.Z.A. Yahya**, *Influences of Epitaxial Strain and Volume on BaTiO₃: Ab Initio Total Energy Calculation*, **Integrated Ferroelectrics**, Vol.155 (2014) 91-99.
122. M.F.M. Taib, M.K. Yaakob, F.W. Badrudin, M.S.A. Rasiman, T.I.T. Kudin, O.H. Hassan, **M.Z.A. Yahya**, *First-Principles Comparative Study of the Electronic and Optical Properties of Tetragonal (P4mm) ATiO₃ (A = Pb, Sn, Ge)*, **Integrated Ferroelectrics**, Vol.155 (2014) 23-32.
123. M.S.A. Rasiman, F.W. Badrudin, T.I.T. Kudin, M.K. Yaakob, M.F.M. Taib, **M.Z.A. Yahya**, O.H. Hassan, *Determination of Electronic Structure and Band Gap of Li₂MnP₂O₇ via First-Principle Study*, **Integrated Ferroelectrics**, Vol.155 (2014) 71-77.
124. M.K. Yaakob, N.H. Hussin, M.F.M. Taib, T.I.T. Kudin, O.H. Hassan, A.M.M. Ali, **M.Z.A. Yahya**, *First Principles LDA+U Calculations for ZnO Materials*, **Integrated Ferroelectrics**, Vol.155 (2014) 15-22.
125. M.F.M. Taib, M.K. Yaakob, F.W. Badrudin, T.I.T. Kudin, O.H. Hassan, **M.Z.A. Yahya**, *First principles calculation of tetragonal (P4 mm) Pb-free ferroelectric oxide of SnTiO₃*, **Ferroelectrics** Vol. 459 (2014) 134 – 142.
126. F.W. Badrudin, M.S.A. Rasiman, M.F.M. Taib, N.H. Hussin, O.H. Hassan, **M.Z.A. Yahya**, *First Principles Study on Structural and Electronic Properties of LiFeSO₄OH Cathode Material for Lithium Ion Batteries*, **Applied Mechanics and Materials** Vol. 510 (2014) 33-38.
127. N.K. Jaafar, A. Lepit, N.A. Aini, A.M.M. Ali, A. Saat, **M.Z.A. Yahya**, *Structural and Electrical Properties of Plasticized Radiation Induced Chitosan Grafted Poly(methylmethacrylate) Polymer Electrolytes*, **International Journal of Electrochemical Science**, Vol. 9 (2014) 821 - 829
128. N.H. Hussin, M.F.M. Taib, N.A. Johari, F.W. Badrudin, O.H. Hassan, **M.Z.A. Yahya**, *Establishment of structural and elastic properties of titanate compounds based on Pb, Sn, and Ge by first-principles calculation*, **Applied Mechanics and Materials** Vol. 510 (2014) 57-62.
129. K. Nazir, S.F. Ayub, A.F. Aziz, A.M.M. Ali, **M.Z.A. Yahya**, *Preparation and characterization of epoxidized-30% poly(methyl methacrylate)-grafted natural rubber polymer electrolyte*, **Journal of Nano Research**, Vol. 28 (2014) 163-170.

130. S.Z.Z. Abidin, **M.Z.A. Yahya**, O.H. Hassan, A.M.M. Ali, *Conduction mechanism of lithium bis(oxalate) borate-cellulose acetate polymer gel electrolytes*, **Ionics Vol. 20 (2014) 1671-1680.**

YEAR 2013

131. M.F.M. Taib, M.K. Yaakob, O.H. Hassan, **M.Z.A. Yahya**, *Structural, electronic, and lattice dynamics of PbTiO₃, SnTiO₃, and SnZrO₃: A comparative first-principles study*, **Integrated Ferroelectrics Vol. 142 (2013) 119 – 127.**
132. M.F.M. Taib, M.K. Yaakob, F.W. Badrudin, T.I.T. Kudin, O.H. Hassan, **M.Z.A. Yahya**, *First-Principles Calculation of the Structural, Elastic, Electronic and Lattice Dynamics of GeTiO₃*, **Ferroelectrics Vol. 452 (2013) 122 – 128.**
133. S.Z.Z. Abidin, A.M.M. Ali, O.H. Hassan, **M.Z.A. Yahya**, *Electrochemical studies on cellulose acetate-LiBOB polymer gel electrolytes*, **International Journal of Electrochemical Science, Vol. 8 (2013) 7320 – 7326.**
134. A.M.M. Ali, R.H.Y. Subban, H. Bahron, **M.Z.A. Yahya**, A.S. Kamisan, *Investigation on modified natural rubber gel polymer electrolytes for lithium polymer battery*, **Journal of Power Sources , Vol. 244 (2013) 636-640**
135. M.K. Yaakob, M.F.M. Taib, M.S.M. Deni, A. Chandra, L. Lu, **M.Z.A. Yahya**, *First principle studies on structural, elastic, and electronic properties of cubic BiFeO₃*, **Ceramics International, Vol. 39 (2013) S283-286**
136. M.F.M. Taib, M.K. Yaakob, O.H. Hassan, A. Chandra, A.K. Arof, **M.Z.A. Yahya**, *First principles calculation on structural and lattice dynamic of SnTiO₃ and SnZrO₃*, **Ceramics International Vol. 39 (2013) S297-300**
137. A.N. Iias, T.I.T. Kudin, Z.M. Zabidi, M.K. Harun, A.M.M. Ali, **M.Z.A. Yahya**, *Characterization of poly(N-vinylcarbazole) blending with diferrent composition by using polarized electronic spectroscopy*, **Advanced Materials Research, Vol. 660 (2013) 19 –23.**
138. A.N. Iias, T.I.T. Kudin, Z.M. Zabidi, M.K. Harun, A.M.M. Ali, **M.Z.A. Yahya**, *Refractive index dispersion and optical dielectric properties of poly(N-carbazole)/poly(vinylpyrrolidone) blends*, **Advanced Materials Research, Vol. 652-654 (2013) 532-536.**
139. A.N. Iias, T.I.T. Kudin, Z.M. Zabidi, M.K. Harun, A.M.M. Ali, **M.Z.A. Yahya**, *Optical studies of poly(N-carbazole)(PVK) blending with polypyrrolidone (PVP) using tauc/davis-mott model*, **Advanced Materials Research, Vol. 652-654 (2013) 527-531.**
140. A.N. Iias, T.I.T. Kudin, Z.M. Zabidi, M.K. Harun, A.M.M. Ali, **M.Z.A. Yahya**, *Excitation and emission properties of poly(N-carbazole/poly (pyrrolidone) blends characterized by fluorence spectroscopy*, **Advanced Materials Research, Vol. 652-654 (2013) 550-553.**
141. R.M. Ali, N.I. Harun, A.M.M. Ali, **M.Z.A. Yahya**, *Effect of temperature on conductivity studies of cellulose acetate based polymer electrolytes*, **Advanced Materials Research, Vol. 667 (2013) 240-245.**
142. N.I. Harun, R.M. Ali, A.M.M. Ali, **M.Z.A. Yahya**, *Effects of ammonium tetrafluoroborate on conductivity and thermalstudies on cellulose acetate based polymer electrolytes*, **Advanced Materials Research, Vol. 667 (2013) 150-154.**

YEAR 2012

143. M.F. Mustafa, N.I.M. Ridwan, F.F. Hatta, **M.Z.A. Yahya**, *Effect of dimethyl carbonate plasticizer on ionic conductivity of methyl cellulose-based polymer electrolytes*, **Malaysian Journal of Analytical Sciences, Vol. 16 (2012) 283-289.**
144. A.A. Ariffin, R.D. O'Neill, **M.Z.A. Yahya**, Z.M. Zain, *Electropolymerization of ortho-phenylenediamine and its use for detection on hydrogen peroxide and ascorbic acid by electrochemical impedance spectroscopy*, **International Journal of Electrochemical Science, Vol. 7 (2012) 10154 – 10163.**
145. N.A. Aini, **M.Z.A. Yahya**, A. Lepit, N.K. Jaafar, M.K. Harun, A.M.M. Ali, *Preparation and characterization of UV irradiated SPEEK/Chitosan membranes*, **International Journal of Electrochemical Science, Vol. 7 (2012) 8226 – 8235**
146. A. Lepit, N.A. Aini, N.K. Jaafar, N. Hashim, A.M.M. Ali, K.Z.M. Dahlan, **M.Z.A. Yahya**, *Influences of co-polymerization 1-vinylimidazole onto irradiated poly(vinylidene flouride) membranes*, **International Journal of Electrochemical Science, Vol. 7 (2012) 8560 – 8577.**
147. N.A. Johari, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, *Electrochemical studies of composites cellulose acetate based polymer gel electrolytes for proton batteries*, **Proceedings of the National Academy of Sciences, India, Sec A, (2012) 1-4.**
148. A. Lepit, **M.Z.A. Yahya**, N.A. Aini, N.K. Jaafar, A.M.M. Ali, K.Z. M. Dahlan, *Effects of γ -ray irradiation on electrical and physico-chemical properties of sulfonated PVDF-HFP/1H-1,2,4-triazole proton conducting membranes*, **International Journal of Electrochemical Science, Vol. 7 (2012) 7712 – 7719.**
149. A.S.A Bakar, R. Othman, **M.Z.A. Yahya**, N.M.S. Nik Din, *Bioenergy from Gloeophyllum-Rhizopus fungal biofuel cell*, **Advanced Materials Research, Vol. 512-515 (2012) 1461 – 1465.**
150. N. Hairin, R. Othman, H. Saputra, **M.Z.A. Yahya**, *Evaluation of porous electrode properties using metal-air electrochemical system*, **Advanced Materials Research, Vol. 512-515 (2012) 1619 – 1623.**
151. N. Asrul, R. Othman, **M.Z.A. Yahya**, H.M. Salleh, F. Yusof, A.A. Ahmad, *Freely-suspended, single chamber glucose oxidase-laccase enzymatic fuel cell*, **Advanced Materials Research, Vol. 512-515 (2012) 1499 – 1502.**
152. N.I. Harun, R.M. ali, A.M.M. Ali, **M.Z.A. Yahya**, *Resistive-type Humidity sensor Based on CA-NH₄BF₄-PEG600 Thin Films*, **Physics Procedia, Vol 25 (2012) 221 – 226**
153. M.K. Yaakob, M.F.M. Taib, **M.Z.A. Yahya**, *First Principle Study on Dynamical Properties of a new Perovskite Material Based on GeTiO₃*, **Advanced Materials Research, Vol. 501 (2012) 352 – 356**
154. M.F.M. Taib, K.H.K. Arifin, M.K. Yaakob, A. Chandra, A.K. Arof, **M.Z.A. Yahya**, *Effect of Pressure on Structural, Electronic and Elastic Properties of Cubic (pm3m) Sn TiO₃ Using First Principle Calculation*, **Advanced Materials Research, Vol. 501 (2012) 342 – 346**
155. R.M. Ali, N.I. Harun, A.M.M. Ali, **M.Z.A. Yahya**, *Effect of ZnS Dispersoid in Structural and Electrical Propertie of Plasticized CA-NH₄I*, **Physics Procedia, Vol 25 (2012) 293 – 298**

156. A. Lepit, N.A. Aini, A.M.M. Ali, K.Z.M. Dahlan, **M.Z.A. Yahya**, *Graft Copolymerization of 1-Vinylimidazole onto Poly(vinylimidazole fluoride) by Radiation Induced Grafting for Fuel Cells Membrane*, **Advanced Materials Research, Vol 476-478 (2012) 636-641**
157. A.N. Alias, T.I.T. Kudin, Z.M. Zabidi, M.K. Harun, **M.Z.A. Yahya**, *Effect of Salt Concentration and Humidity on the Ionic Conductivity of Poly (vinylidene Fluoride-Hexafluoropropylene (PVDF-HFP)* **Advanced Materials Research, Vol. 501 (2012) 39 – 43**
158. A.N. Alias, T.I.T. Kudin, Z.M. Zabidi, M.K. Harun, **M.Z.A. Yahya**, *Optical Characterization of luminescence Polymer Blends Using Tauc/Davis-Mott Model*, **Advanced Materials Research, Vol. 488 (2012) 628 – 632**
159. NI Harun, RM Ali, AMM Ali, **MZA Yahya**, *Dielectric behaviour of cellulose acetate-based polymer electrolytes*, **Ionics Vol 18 (2012) 599 – 606.**
160. N.H.A. Rahman, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, *Synthesis and Characteristics of conducting polymer-based polypyrrole (PPy) in different solvents*, **Journal of Materials Science & Engineering A, Vol. 2 (2012) 190 - 195**
161. M. Hamidi, S.N. Mohamed, **M.Z.A. Yahya**, *Conductivity Studies on $Li_{1-x}Al_xTi_{2-x}(PO_4)_3$ ($X=0.0 - 0.5$) due to the Addition of Al^{3+} Trivalent Cation*, **Advanced Materials Research, Vol. 418 (2012) 1869 – 1872.**
162. Z.S. Mahmud, N.I. Adam, N.H.M. Zaki, A.M.M. Ali, **M.Z.A. Yahya**, *Conductivity and optical studies of plasticized polymer electrolytes based on 49% PMMA-grafted natural rubber*, **ISBEA 2012-IEEE, 6422936 (2012) 504-508.**
163. N.H.M. Zaki, Z.S. Mahmud, N.I. Adam, A.H. Ahmad, A.M.M. Ali, **M.Z.A. Yahya**, *Characterization of plasticized grafted natural rubber-30% PMMA (MG30) based polymer electrolytes*, **ISBEA 2012-IEEE, 6422981 (2012) 705-708.**
164. A.N. Alias, T.I.T. Kudin, Z.M. Zabidi, **M.Z.A. Yahya**, A.M.M. Ali, *Polarized absorption and dielectric spectra of poly(N-carbazole) blends*, **ISBEA 2012-IEEE, 6422935 (2012) 498-503.**
165. N.I. Adam, N.H.M. Zaki, Z.S. Mahmud, **M.Z.A. Yahya**, A.M.M. Ali, *The effect of composition nanofiller Al_2O_3 to the conductivity, morphology and thermal properties of MG30-LiTF polymer electrolytes*, **ISBEA 2012-IEEE, 6422980 (2012) 701-704.**
166. N.K. Jaafar, A. Lepit, .A. Aini, A.M.M. Ali, **M.Z.A. Yahya**, *Radiation-induced copolymerization based polymer electrolyte*, **ISBEA 2012-IEEE, 6422950 (2012) 563-567.**
167. M.F.M. Taib, M.K. Yaakob, O.H. Hassan, **M.Z.A. Yahya**, *First principles calculation on elastic, electronic and optical properties of new cubic (Pm3m) Pb-free perovskite oxide of $SnZrO_3$* , **ISBEA 2012-IEEE, 6422855 (2012) 13-17.**
168. M.Hamidi, S.N. Mohamed, A.M.M. Ali, T. Winie, **M.Z.A. Yahya**, *Preparation and characterization of $Li_{1.4}Al_{0.4}Ti_{1.6}PO_4$ conducting electrolyte*, **ISBEA 2012-IEEE, 6422945 (2012) 53-56.**
169. N.H.M. Zaki, Z.S. Mahmud, **M.Z.A. Yahya**, A.M.M. Ali, *Conductivity studies on 30% PMMA grafted NR-NH₄CF₃SO₃ gel polymer electrolytes*, **SHUSER 2012-IEEE, 6268995 (2012) 797-800.**

YEAR 2011

170. N.H.A. Rahman, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, *Synthesis and Characteristics of Composite polypyrrole-Vanadium Oxide (PPy/V₂O₅)*, **Journal of Materials Science & Engineering B, Vol. 1 (2011) 457 – 460**
171. A.S. Kamisan, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, *Electrical and Physical Studies On 49% Methyl-Grafted Natural Rubber-Based Composite Polymer Gel Electrolytes*, **Electrochimica Acta Vol. 57 (2011) 207-211**
172. NK Jaafar, A Lepit, NA Aini, A. Saat, AMM Ali, **MZA Yahya**, *Effects of Lithium Salt on Chitosan-g-PMMA Based Polymer Electrolytes*, **Materials Research Innovations Vol. 15 (2011) 202-204**
173. NA Aini, A Lepit, NK Jaafar, MK Harun, AMM Ali, **MZA Yahya**, *Effects of UV Irradiation Time on Electrical, Physical and Thermal Properties of SPEEK-CS Composite Membranes*, **Materials Research Innovations Vol. 15 (2011) 206-209**
174. NI Harun, RM Ali, AMM Ali, **MZA Yahya**, *Conductivity studies on cellulose acetate-ammonium tetrafluoroborate based polymer electrolytes*, **Materials Research Innovations Vol. 15 (2011) 168-172**
175. R.M. Ali, N.I. Harun, A.M. Ali, **M.Z.A. Yahya**, *Conductivity Studies on Plasticized Cellulose Acetate-Ammonium Iodide Based Polymer Electrolytes*, **Materials Research Innovations Vol. 15 (2011) 39-42**
176. A.S. Kamisan, A.M. Ali, **M.Z.A. Yahya**, *Conductivity Modification of Polymer Gel Electrolytes: Addition of MG49 and SiO₂*, **Materials Research Innovations Vol. 15 (2011) 153-156**
177. NA Johari, TIT Kudin, AMM Ali, **MZA Yahya**, *Effects of TiO₂ on Conductivity Performance of Cellulose Acetate-based Polymer Gel Electrolytes for Proton Batteries*, **Materials Research Innovations Vol. 15 (2011) 229-231**
178. A.S. Kamisan, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, *Polymer Gel Electrolytes Based on 49% Methyl Grafted Natural Rubber*, **Sains Malaysiana, Vol. 40 (2011) 49-54**

YEAR 2010

179. **M.Z.A Yahya**, A.K. Arof, P. Nemeč, *Préface – ICFMD 2008*, **Optical Materials, Vol. 32 (2010) 657**
180. Noor Hidayat Abdul Nasir, Chin Han Chan, Hans-Werner Kammer, Lai Har Sim, **Muhd Zu Azhan Yahya**, *Ionic Conductivity in Solutions of PEO and Lithium Perchlorate*, **Macromolecular Symposia, Vol. 290 (2010) 46 – 55.**
181. N.H.A. Rosli, N.I. Harun, M.F.M. Taib, S.I.Y. Saaid, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya** *Effect of Plasticizers on Methyl Cellulose-Based Alkaline Solid Polymer Electrolytes*, **American Institute of Physics, Vol. 1250 (2010) 233 - 236**
182. N.I. Harun, N.S. Sabri, N.H.A. Rosli, M.F.M. Taib, S.I.Y. Saaid, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya** *Proton Conductivity Studies on Biopolymer Electrolytes* **American Institute of Physics, Vol. 1250 (2010) 237 - 240.**

YEAR 2009

183. A. Abdullah, R.H.Y. Subban, **M.Z.A. Yahya** *The Effect Of Filler Size On Electrical Properties Of PEO-Based Polymer Electrolyte* **American Institute of Physics, Vol. 1136 (2009) 66 - 70.**
184. N.A Johari, T.I.T. Kudin, T. Winie, A.M.M. Ali, **M.Z.A. Yahya**, *Effects of double solvents/plasticisers on proton conducting gel polymer electrolytes*, **Materials Research Innovations, Vol. 13 (2009) 298-301**

185. F.W.M. Noor, T.I.T. Kudin, A.M.M. Ali, F. Latif, **M.Z.A. Yahya**, "Conductivity studies of phosphonated methylcellulose membrane", **Materials Research Innovations**, Vol. 13 (2009) 243-245
186. S.I.Y. Saaid, T.I.T. Kudin, A.M.M. Ali, A.H. Ahmad, **M.Z.A. Yahya**, "Solid state proton battery using plasticised cellulose-salt complex electrolyte", **Materials Research Innovations**, Vol. 13 (2009) 252-254
187. T.I.T. Kudin, N.F.A. Zainal, A.M.M. Ali, S. Abdullah, S. Rusop, M.A. Sulaiman, **M.Z.A. Yahya**, "Electrochemical performance of anode material from palm oils derived carbon nanotubes for lithium ion batteries", **Materials Research Innovations**, Vol. 13 (2009) 269-271
188. A.S.M. Sauri, K. Kassim, H. Bahron, **M.Z.A. Yahya**, M.K. Harun, "Investigation on effects of substituents in N, N'-dibensylidene ethane-1, 2-diamine towards corrosion inhibition on steel in 1M HCl", **Materials Research Innovations**, Vol. 13 (2009) 305-308
189. A.S. Kamisan, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, "Gel polymer electrolyte based on methyl-grafted natural rubber for proton batteries", **Materials Research Innovations**, Vol. 13 (2009) 263-265
190. **N.A. Johari**, T.I.T. Kudin, A.M.M. Ali, T. Winie, **M.Z.A. Yahya**, "Studies on cellulose acetate-based gel polymer electrolytes for proton batteries", **Materials Research Innovations**, Vol. 13 (2009) 232-234
191. A.M.M. Ali, H. Bahron, R.H.Y. Subban, T.I.T. Kudin, **M.Z.A. Yahya**, "Frequency dependent conductivity studies on PMMA-LiCF₃SO₃ polymer electrolytes", **Materials Research Innovations**, Vol. 13 (2009) 285-287
192. **M.Z.A. Yahya**, A.K. Arof, M.K. Harun, R.H.Y. Subban, T. Winie, T.I.T. Kudin, "Materials Research Innovations: Editorial", **Materials Research Innovations**, Vol. 13 (2009) 133
193. A. Abdullah, S.Z. Abdullah, A.M.M. Ali, T. Winie, **M.Z.A. Yahya**, R.H.Y. Subban, "Electrical properties of PEO-LiCF₃SO₃-SiO₂ nanocomposite polymer electrolytes", **Materials Research Innovations**, Vol. 13 (2009) 255-258
194. F. Latif, M. Aziz, A.M.M. Ali, **M.Z.A. Yahya**, "The coagulation impact of 50% epoxidised natural rubber chain in ethylene carbonate-plasticized solid electrolytes", **Macromolecular Symposia**, Vol. 277 (2009) 62 – 68.
195. F.F. Hatta, T.I.T. Kudin, A.M.M. Ali, R.H.Y. Subban, M.K. Harun, **M.Z.A. Yahya**, "Plasticized PVA/PVP-KOH Alkaline Solid Polymer Blend Electrolyte for Electrochemical Cells", **Functional Materials Letters**, Vol. 2 (2009) 121 – 125. A. Abdullah, S.Z. Abdullah, Tan Winie, **M.Z.A. Yahya**, R.H.Y. Subban, "PEO-LiCF₃SO₃-SiO₂ Nanocomposite Polymer Electrolyte and Electrochemical Cell Performances", **Proceeding of National Workshop on Functional Materials**, 20 Jun 2009, UM KL, pp. 47 – 54.
196. N.I. Zarawi, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, "Effects of TiO₂ on PVA/PVP based Alkaline Solid Polymer Electrolytes", **Proceeding of National Workshop on Functional Materials**, 20 Jun 2009, UM KL, pp. 57 – 64.
197. M.F.M. Taib, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, "Composite Polymer Gel Electrolytes based on Cellulose for Lithium-Air Battery", **Proceeding of National Workshop on Functional Materials**, 20 Jun 2009, UM KL, pp. 145 – 150.
198. A.M.M. Ali, R.H.Y. Subban, H. Bahron, T.I.T. Kudin, **M.Z.A. Yahya**, "Studies on MG30 Natural Rubber Based Electrolytes for Lithium Batteries", **Proceeding of National Workshop on Functional Materials**, 20 Jun 2009, UM KL, pp. 155 – 160.

YEAR 2008

199. S.N. Mohamed, N.A. Johari, A.M.M. Ali, M.K. Harun, **M.Z.A. Yahya**, "Electrochemical Studies on Epoxidised Natural Rubber-Based Gel Polymer Electrolytes For Lithium-Air Cells", **Journal of Power Sources**, 183 (2008) 351 – 354.
200. A.M.M. Ali, R.H.Y. Subban, H. Bahron, T. Winie, F. Latif and **M.Z.A. Yahya**, "Grafted natural rubber-based polymer electrolytes: ATR-FTIR and conductivity studies" **Ionics**, Vol. 14 (2008) 491 – 500.
201. A.A. Mohamad, H. Haliman, M.A. Sulaiman, **M.Z.A. Yahya**, A.M.M. Ali, "Conductivity Studies of Plasticized Anhydrous PEO-KOH Alkaline Solid Polymer Electrolyte" **Ionics**, Vol. 14 (2008) 59 – 62.
202. **M.Z.A. Yahya**, A.M.M. Ali, H. Bahron and R.H.Y. Subban, "Conductivity Studies of Gel Polymer Electrolytes Based on 30% Methyl Grafted Natural Rubber" **Solid State Science and Technology Letters**, Vol. 15 (2008) 122 – 127.
203. N.A. Johari, T.I.T. Kudin, A.M.M. Ali, T. Winie and **M.Z.A. Yahya**, "Ionic Conductivity Studies of Cellulose Acetate Gel Polymer Electrolytes" **Solid State Science and Technology Letters**, Vol. 15 (2008) 128 – 134.
204. N. Lahazan, F.S.A. Ghani, **M.Z.A. Yahya**, R.H.Y. Subban and A.H. Ahmad, "Ionic Conductivity of Poly(L-Leucine)1,3-Diamino Propane-Lithium Iodide", **Solid State Science and Technology Letters**, Vol. 15 (2008) 39 – 47.

YEAR 2007

205. A.M.M. Ali, **M.Z.A. Yahya**, H. Bahron, R.H.Y. Subban, M.K. Harun and I. Atan, "Impedance Studies On Plasticized PMMA-LiX [X: CF₃SO₃, N(CF₃SO₂)₂] Polymer Electrolytes" **Materials Letters**, Vol. 61 (2007) 2026-2029.
206. M.A.K. Megat Hanafiah, **M.Z.A. Yahya**, H. Zakaria and S.C. Ibrahim "Adsorption of Cd (II) ions from Aqueous Solution by Impure Cylindrica Leaf Powder: Effect of Physicochemical environment". **Journal of Applied Sciences**, Vol. 7 (2007) 489-493

YEAR 2006

207. S.C. Ibrahim, M.A.K. Megat Hanafiah and **M.Z.A. Yahya** "Removal of Cadmium from Aqueous Solution by Adsorption onto Sugarcane Bagasse" **American-Eurasian Journal of Agriculture and Environmental Science**, Vol. 1 (2006) 179 – 184
208. M.A.K. Megat Hanafiah, S.C. Ibrahim and **M.Z.A. Yahya** "Equilibrium adsorption study of lead ions onto sodium hydroxide modified lalang (imprata cylindrica) leaf powder" **Journal of Applied Sciences Research**, Vol. 2 (2006) 1169 – 1174
209. A.M.M. Ali, **M.Z.A. Yahya**, H. Bahron and R.H.Y. Subban "Electrochemical Studies on Polymer Electrolytes Based On Poly (Methylmethacrylate) Grafted Natural Rubber for Lithium Polymer Battery". **Ionics**, Vol. 12 (2006), 303-307
210. **M.Z.A. Yahya**, M.K. Harun, A.M.M. Ali, M.F. Mohammat, M.A.K. Megat Hanafiah, S.C. Ibrahim, M. Mustafa, Z.M. Darus and F. Latif "XRD and Surface Morphology Studies of Chitosan-Based Film Electrolytes" **Journal of Applied Sciences**,

Vol. 6 (2006) 3150-3154

211. M.K. Harun, S.N.A.S. Ismail, **M.Z.A. Yahya** and S.B. Lyon, "The Effect Of Surface Pretreatment On Water Absorption And Wet Adhesion Of Organic Coatings" **Materials Science Forum**, Vol. 517 (2006) 1 – 4.
212. M.A.K.M. Hanafiah, S. Shafiei, M.K. Harun and **M.Z.A. Yahya**, "Kinetic And Thermodynamic Study Of Cd²⁺ Adsorption Onto Rubber Tree (*Hevea Brasiliensis*) Leaf Powder", **Materials Science Forum**, Vol. 517 (2006) 217 – 221.
213. F. Latif, M. Aziz, N. Katun, A.M.M. Ali and **M.Z.A. Yahya**, "The Role and Impact of Rubber in PMMA/ lithium triflate electrolyte", **Journal of Power Sources**, Vol. 159 (2006) 1401-1404.
214. **M.Z.A. Yahya**, A.M.M. Ali, M.F. Mohammat, S.C. Ibrahim, Z.M. Darus, M.A.K.M. Hanafiah, M.K. Harun and M. Mustafa, "Ion Conduction Model in Chitosan-Based Polymer Electrolytes", **Journal of Applied Sciences**, Vol. 6 (2006) 1287 – 1291.

YEAR 2005

215. FF Hatta, **MZA Yahya**, AMM Ali, RHY Subban, MK Harun, AA Mohamad, "Electrical Conductivities Studies on PVA/PVP-KOH Alkaline Solid Polymer Blend Electrolyte", **Ionics**, Vol. 11 (2005) 418 – 422.
216. AMM Ali, **MZA Yahya**, M. Mustafa, AH Ahmad, RHY Subban, MK Harun, AA Mohamad, "Electrical Properties of Plasticized Chitosan-Lithium Imide with Oleic Acid-Based Polymer Electrolytes for Lithium Rechargeable Batteries", **Ionics**, Vol. 11 (2005) 460 – 463.
217. A. Mat, **M.Z.A. Yahya**, M.A. Sulaiman, R. Puteh and A.K. Arof, "Temperature of Formation Studies for LiMn_{1.5}Ni_{0.5}O₄ Using X-Ray Diffraction", **Materials Science Forum**, Vol. 480 (2005) 77 – 80.
218. **M.Z.A. Yahya**, R. Puteh and A.K. Arof, "Solid Ionic Conductors Based on Salted Chitosan-Fatty Acid Plasticizers Systems", **Materials Science Forum**, Vol. 480 (2005) 95 – 100.
219. R. Puteh, **M.Z.A. Yahya**, A.M.M. Ali, M.A. Sulaiman and R. Yahya, "Conductivity Studies on Chitosan-based Polymer Electrolyte with Lithium Salts", **Indonesian Journal of Physics**, Vol. 16 (2005) 17 – 19.
220. R. Yahya, A.H. Yahya, W.J. Basirun, R. Puteh, A.K. Arof, **M.Z.A. Yahya** and S. Vengidason, "Synthesis of Lithium Intercalation Oxides based on manganese and Copper by the Sol-Gel Method", **Indonesian Journal of Physics**, Vol. 16 (2005) 21 – 24.
221. A.M.M.Ali, **M.Z.A. Yahya**, M.K. Harun and A.A. Mohamad "Conductivities studies on Plasticized Chitosan Acetate Based Polymer electrolytes" **Science Letters**, Vol. 2 (2005) 23 – 30.
222. M.K. Harun and **M.Z.A. Yahya** "De-adhesion Mechanism of Commercial Unpigmented Epoxy and Alkyd Coating Under Cathodic Polarisation" **Science Letters**, Vol. 2 (2005) 1 – 11.
223. **M.Z.A. Yahya** and A.M.M. Ali, "Humidity Sensing Studies on Chitosan-Based Polymer Electrolytes" **Science Letters**, Vol. 2 (2005) 94 - 107.
224. A.M.M. Ali, **M.Z.A. Yahya** and M. Mustafa, "Electrical Properties Studies on Plasticized Chitosan-Lithium Imide with Oleic Acid Based Polymer Electrolytes" **Science Letters**, Vol. 2 (2005) 154 - 167.

YEAR 2004

225. **M.Z.A. Yahya** and A.K. Arof, "Complexation and Ionic Conductivity in Lithium Acetate Doped Chitosan Films", **Carbohydrate Polymer**, Vol. 55 (2004) 95 – 100.
226. **M.Z.A. Yahya**, Z. Osman and A.K. Arof, "Ionic Conductivity in Chitosan-Based Membranes and Application in Electrochemical Cells –A Review", **Current Topics in Electrochemistry**, Vol. 10 (2004) 51 – 62.
227. R.H.Y. Subban, **M.Z.A. Yahya**, R. Puteh and A.K. Arof, "Two Percolations Model for Conductivity-Salt Concentration in PVC-LiPF₆ System", **Indonesian Journal of Physics**, Vol. 15 (2004) 51 – 53.
228. A.H. Ahmad, **M.Z.A. Yahya**, R. Puteh and A.K. Arof, "Stretching Hydrolysis in Li₁-Li₂WO₄-Li₃PO₄ by Infrared Spectroscopy", **Indonesian Journal of Physics**, Vol. 15 (2004) 65 – 69.
229. **M.Z.A. Yahya**, R. Puteh and A.K. Arof, "Electrical Properties of Fatty Acid in Salted Chitosan Membranes", **Indonesian Journal of Physics**, Vol. 15 (2004) 77 – 82.

YEAR 2003

230. A. Sanusi, **M.Z.A. Yahya**, S. Navaratnam, W.J. Basirun, Y. Alias, N.S. Mohamed and A.K. Arof, "Sulphide Based Anode Material for Lithium Rechargeable Battery", **Ionics**, Vol. 9 (2003) 253 – 257.
231. **M.Z.A. Yahya** and A.K.Arof, "Effect of Oleic Acid Plasticizer on Chitosan-Lithium Acetate Solid Polymer Electrolytes", **European Polymer Journal**, Vol. 39 (2003) 897 – 902.
232. A.A. Mohamad, N.S. Mohamed, **M.Z.A. Yahya**, R. Othman, S. Ramesh, Y. Alias and A.K. Arof, "Ionic Conductivity Studies of Poly(Vinyl Alcohol) Alkaline Solid Polymer Electrolyte And Its Use In Nickel-Zinc Cells", **Solid State Ionics**, Vol. 156 (2003) 171 – 177.

YEAR 2002

233. **M.Z.A. Yahya** and A.K. Arof, "Characteristics of Chitosan-Lithium Acetate-Palmitic Acid Complexes", **Journal of New Material for Electrochemical Systems**, Vol. 5 (2002) 123 – 128.
234. **M.Z.A. Yahya** and A.K.Arof, "Studies on Lithium Doped Chitosan Conducting Polymer System", **European Polymer Journal**, Vol. 38 (2002) 1191 – 1197.
235. E.B. Saniman, **M.Z.A. Yahya** and A.K. Arof, "X-Ray Spectroscopy For Probing Non-Bridging Oxygen In Silver Ion Conductors And Their Relationship To Ionic Conductivity", **Malaysian Journal of Science**, Vol. 21A (2002) 83 –86.
236. A.M.M. Ali, **M.Z.A. Yahya**, R. Yahya, R. Puteh, F. Sonsudin, M.A. Yarmo and A.K. Arof, "Evidence Of Complexation Between Plasticized Argentum Triflate And Chitosan By X-Ray Photoelectron Spectroscopy (XPS)", **Malaysian Journal of Science**, Vol. 21A (2002) 135 – 139.
237. **M.Z.A. Yahya**, A.M.M. Ali, R. Puteh, R. Yahya, M.A. Yarmo and A.K. Arof, "Zn 2p_{1/2} and Zn 2p_{3/2} Electron Binding Energies With Donors In Chitosan-Zinc Acetate Membranes Determined By X-Ray Photoelectron Spectroscopy Studies", **Malaysian Journal of Science**, Vol. 21A (2002) 169 – 171.

YEAR 2001

238. **M.Z.A. Yahya**, A.M.M. Ali and A.K. Arof, "Detection Ion Aggregates in Chitosan Doped with Lithium Acetate by X-Ray Photoelectron Spectroscopy". **Malaysian Journal of Analytical Sciences**, Vol.6 (2001) 89 - 92.
239. Z.Osman, **M.Z.A. Yahya**, Z.A.Ibrahim and A.K.Arof, "Lithium-ion Transport in Chitosan-ethylene Carbonate Blends". **Malaysian Journal of Analytical Sciences**, Vol.6 (2001) 75 – 82.

PROCEEDING

240. A. Abdullah, S.Z. Abdullah, Tan Winie, **M.Z.A. Yahya**, R.H.Y. Subban, "PEO-LiCF₃SO₃-SiO₂ Nanocomposite Polymer Electrolyte and Electrochemical Cell Performances", **Proceeding of National Workshop on Functional Materials, 20 Jun 2009, UM KL**, pp. 47 – 54.
241. N.I. Zarawi, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, "Effects of TiO₂ on PVA/PVP based Alkaline Solid Polymer Electrolytes", **Proceeding of National Workshop on Functional Materials, 20 Jun 2009, UM KL**, pp. 57 – 64.
242. M.F.M. Taib, T.I.T. Kudin, A.M.M. Ali, **M.Z.A. Yahya**, "Composite Polymer Gel Electrolytes based on Cellulose for Lithium-Air Battery", **Proceeding of National Workshop on Functional Materials, 20 Jun 2009, UM KL**, pp. 145 – 150.
243. A.M.M. Ali, R.H.Y. Subban, H. Bahron, T.I.T. Kudin, **M.Z.A. Yahya**, "Studies on MG30 Natural Rubber Based Electrolytes for Lithium Batteries", **Proceeding of National Workshop on Functional Materials, 20 Jun 2009, UM KL**, pp. 155 – 160.

Chapter in Book

1. MFM Taib, MK Yaakob, A. Chandra, AK Arof, **MZA Yahya**, "First Principle Study on the Lead-Free Perovskite of SnTiO₃" in: *Materials with Complex Behaviour II ; Properties, Non-Classical Materials and New Technologies*, Öchsner, Andreas; Silva, Lucas F. M. da; Altenbach, Holm (Eds.) ISBN 978-3-642-22699-1, Springer, Germany DOI: 10.1007/978-3-642-22700-4_14
2. M.K. Harun, **M.Z.A Yahya** and C.C. Chan, in "Advances in Materials Processing (2009) Volume 2, pp. 80-106, *Advanced Materials Processing & Integrity*, Institute of Materials Malaysia, Shah Alam ISBN 978-983-2781-01-1
3. **M.Z.A.Yahya**, A.M.M.Ali and A.K.Arof, "Ion Conduction in Chitosan-Based Membranes" in " **Electrochemical Power Sources : Materials and Characterisation**", (ed) A.K. Arof, N.S. Mohamed, R.H.Y. Subban, S.A.H. Ali and M.Z.A. Yahya, **Penerbit U. Malaya, (2000) pp. 31 – 41.**
4. N.A. Johari, T.I.T. Kudin, A.M.M. Ali, T. Winie and **M.Z.A. Yahya** "Cellulose Based Proton Conducting Polymer Electrolytes" in "**Electroactive Polymers: Materials and Devices, Vol. 3**" (Eds) S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Macmillan Publishers India Ltd, 2009 ISBN 0230-63890-2): pp. 214 – 222
5. S.I.Y. Saaid, T.I.T. Kudin, A.M.M. Ali and **M.Z.A. Yahya** "The Effect of Plasticizer on the Conductivity of Cellulose Acetate-Ammonium Salt Complexes" in "**Electroactive Polymers: Materials and Devices, Vol. 3**" (Eds) S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Macmillan Publishers India Ltd, 2009 ISBN 0230-63890-2): pp. 223 – 230
6. F.W.M. Noor, T.I.T. Kudin, A.M.M. Ali and **M.Z.A. Yahya** "Phosphonated Methylcellulose-based Polymer Membrane for Humidity Sensor" in "**Electroactive Polymers: Materials and Devices, Vol. 3**" (Eds) S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Macmillan Publishers India Ltd, 2009 ISBN 0230-63890-2): pp. 356 – 362
7. **M.Z.A. Yahya**, A.M.M. Ali, H. Bahron and R.H.Y. Subban "Ionic Conductivity in Plasticized PMMA-Lithium Triflate Membranes" in "**Electroactive Polymers: Materials and Devices, Vol. 2**" (Eds) S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Allied Publishers Pvt. Ltd, India, 2007 ISBN 81-8424-246-8): pp. 262 – 266
8. A.M.M. Ali, **M.Z.A. Yahya** H. Bahron and R.H.Y. Subban "Characteristics of PMMA Grafted Natural Rubber Polymer Electrolytes for Lithium Batteries" in "**Electroactive Polymers: Materials & Devices, Vol. 2**" (Eds) S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Allied Publishers Pvt. Ltd, India, 2007 ISBN 81-8424-246-8): pp. 299 – 303
9. F.F. Hatta, **M.Z.A. Yahya**, A.M.M. Ali, R.H.Y. Subban, A.A. Mohamad and T.I.T. Kudin "Studies of Plasticized PVA-PVP-KOH Blend Electrolyte and Performance in Electrochemical Cells" in "**Electroactive Polymers: Materials and Devices, Vol. 2**" (Eds) S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Allied Publishers Pvt. Ltd, India, 2007 ISBN 81-8424-246-8): pp. 386 – 390
10. A.M.M. Ali, F.F. Hatta, N.M. Zain and **M.Z.A. Yahya** "Effect of Silver salt on Ionic Conductivity of Chitosan-Ethylene Carbonate-Based Polymer Electrolyte" in "**Electroactive Polymers: Materials and Devices, Vol. 1**" (Eds) N. Khare, S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Allied Publishers Pvt. Ltd, India, 2007; ISBN 81-8424-149-6): pp. 90 - 94
11. **M.Z.A. Yahya**, A.M.M. Ali, R.H.Y. Subban, A.H. Ahmad and M.A. Sulaiman "Effect of LiTFSI and LiOAc on Plasticized Chitosan-Based Ion Conducting Electrolytes" in "**Electroactive Polymers: Materials and Devices, Vol. 1**" (Eds) N. Khare, S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Allied Publishers Pvt. Ltd, India, 2007; ISBN 81-8424-149-6): pp. 101-106
12. M.A. Sulaiman, A. Mat, **M.Z.A. Yahya** and A.K. Arof "Cycle Life Study on LiNi_{0.8}Co_{0.2}O₂ Asssembled in Polymer Lithium Ion (PLI) Battery" in "**Electroactive Polymers: Materials and Devices, Vol. 1**" (Eds) N. Khare, S.A. Hashmi, Amita Chandra, Amreesh Chandra and S. Chandra, (Allied Publishers Pvt. Ltd, India, 2007; ISBN 81-8424-149-6): pp. 200 – 205
13. **M.Z.A. Yahya**, M.R. Muhamad and A.K. Arof, "Characteristics of Chitosan Film Doped with Lithium and Zinc Acetate", in "**Solid State Ionics: Science and Technology**" (ed) B.V.R.Chowdary, K.Lal, S.A. Agnihotry, N. Khare, S.S. Sekhon, P.C. Srivastava and S. Chandra, (World Scientific, Singapore, 1998): pp. 195-200.

BOOKS EDITORIAL

1. *Electrochemical Power Sources: Materials and Characterization*, Publisher of Universiti Malaya, 2000. (Editors): A.K. Arof, N.S. Mohamed, R.H.Y. Subban, S.A.H. Ali and **M.Z.A. Yahya**.
2. *Malaysian Journal of Science, Vol. 21A (2002) "Special Issue for The International Conference on X-rays and Related Techniques in Research and Industry (ICXRI – 2002)"*, ISSN 1394 – 3065. (Editors): Rustam Puteh, Abdul Kariem Arof, Rosiyah Yahya, **Muhd Zu Azhan Yahya**.
3. Book of Abstracts: *2nd International Conference on Functional Materials & Devices (2008)* (Editors): **M.Z.A. Yahya** et al.
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8. Inaugral Professorial Lecture Series: *"Energy Materials: The Inside Story of a Research Journey"*, UPNM Press (2018) ISBN **978-967-5985-64-5: MZA Yahya**
9. *Solid State Phenomena: "SSP2021 7th International Conference on Solid State Science and Technology, ICSSST 2019"*, Vol. 317, Trans Tech Publication, Switzerland (2021) ISBN **978-303573580-2; ISSN 10120394** (Editors): Yahya M.Z.A., Wan Yunus W.M.Z., Jamari N.L.A., Kasim N.A.M., Wan Yusoff W.Y., Che Ros F., Abdullah N., Ahmad Shah N.A., Abdul Halim N.

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