

Curriculum Vitae

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ACADEMIC QUALIFICATION		
1.	BAppSc (Hons), Universiti Sains Malaysia	1983
2.	MSc, University of Manchester Institute of Science and Technology, United Kingdom	1984
3.	PhD, University of Sheffield, United Kingdom	1995

WORKING EXPERIENCE (As academic administrator/ industrial)	
1.	Deputy Dean (Research and Postgraduate)
2.	Program Chairman (Materials Engineering Program)
3.	Professor 2004 - 2019
4.	Honorary Professor since 2019

FIELD OF SPECIALIZATION	
1.	Engineering Materials
2.	Ceramics/Composites

1. Mohsen Ahmadipour, Mohammad Arjmand, Anh Thi Le, Sin Ling Chiam, Zainal Arifin Ahmad, Swee-Yong Pung, Effects of multiwall carbon nanotubes on dielectric and mechanical properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ composite, *Ceramics International* Volume 46, Issue 12, 15 August 2020, Pages 20313-20319, <https://doi.org/10.1016/j.ceramint.2020.05.119>, <https://www.sciencedirect.com/science/article/pii/S0272884220314073>
2. Mohd Fariz Ab Rahman, Mohd Fadzil Ain, Hasmaliza Mohamad, Julie Juliewatty Mohamed, Siti Roshayu Hassan, Zainal Arifin Ahmad, Wideband frequency tunability of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ -based dielectric resonator antennas via the addition of glass, *International Journal of Applied Ceramic Technology*, Volume 17, Issue 4 July/August 2020 Pages 1909-1917, <https://doi.org/10.1111/ijac.13530>, <https://ceramics.onlinelibrary.wiley.com/doi/abs/10.1111/ijac.13530>
3. Hidayani Jaafar, Mohd Fadzil Ain, Zainal Arifin Ahmad, Performance of dye-sensitized solar cell (DSSC) using carbon black- TiO_2 composite as counter electrode subjected to different annealing temperatures, *Optical and Quantum Electronics* volume 52, Article number: 221 (2020), <https://doi.org/10.1007/s11082-020-02341-5>, <https://link.springer.com/article/10.1007/s11082-020-02341-5>
4. Shahanawaz Kamal, Abdullahi SB Mohammed, Mohd Fazil Ain, Fathul Najmi, Roslina Hussin, Zainal Arifin Ahmad, Ubaid Ullah, Mohammadariff Othman, Mohd Fariz Ab Rahman, A novel lumped LC resonator antenna with air-substrate for 5G mobile terminals, *Progress In Electromagnetics Research Letters*, Vol. 88, 75–81, 2020, <http://www.jpier.org/PIERL/pierl88/11.19090509.pdf>
5. Zhwan Dilshad Ibrahim Sktani, Nik Akmar Rejab, Abdul Fatah Zulkarnain Rosli, Ali Arab, Zainal Arifin Ahmad, Effects of La_2O_3 addition on microstructure development and physical properties of harder ZTA- CeO_2 composites with sustainable high fracture toughness, *Journal of Rare Earths*, In press, corrected proof Available online 23 June 2020, <https://doi.org/10.1016/j.jre.2020.06.005>, <https://www.sciencedirect.com/science/article/pii/S1002072120302945>
6. Shahanawaz Kamal, Abdullahi SB Mohammed, Mohd Fadzil Bin Ain, Fathul Najmi, Roslina Hussin, Zainal Arifin Ahmad, Ubaid Ullah, Mohammadariff Othman, Mohd Fariz Ab Rahman, An Assessment of Progress in 5.8 GHz Quasi-lumped Element Resonator Antennas, *IETE Technical Review* Published online: 10 Mar 2020, DOI: [10.1080/02564602.2020.1732845](https://doi.org/10.1080/02564602.2020.1732845), <https://www.tandfonline.com/doi/abs/10.1080/02564602.2020.1732845>
7. Mustafa Juma A. Mijarsh, Megat Azmi Megat Johari, A.B. Badorol Hisham, Zainal Arifin Ahmad, Influence of SiO_2 , Al_2O_3 , CaO and Na_2O on the elevated temperature performance of alkali activated TPOFA-based mortar,

Structural Concrete, 30 July, 2020, DOI:10.1002/suco.201900302,
<https://authorservices.wiley.com/index.html#dashboard>

8. Mohsen Ahmadipour, Mohammad Arjmand, Zainal Arifin Ahmad, Swee-Yong Pung, Photocatalytic Degradation of Organic Dye by Sol–Gel-Synthesized $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Powder, Journal of Materials Engineering and Performance volume 29, pages 2006–2014(2020),
<https://doi.org/10.1007/s11665-020-04712-1>,
<https://link.springer.com/article/10.1007%2Fs11665-020-04712-1>
9. Ihsan Ahmad Zubir, Mohamadariiff Othman, Ubaid Ullah, Shahanawaz Kamal, Mohd Fariz Ab Rahman, Roslina Hussin, Mohamad Faiz Mohamed Omar, Abdullahi S. B. Mohammed, Mohd Fadzil Bin Ain, Zainal Arifin Ahmad, Mohd Zaid Abdullah, A Low-Profile Hybrid Multi-Permittivity Dielectric Resonator Antenna with Perforated Structure for Ku and K band Applications, IEEE Access, DOI 10.1109/ACCESS.2020.3016432, 2020,
<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9166481>
10. Abdullahi S. B. Mohammed, Shahanawaz Kamal, Mohd Fadzil bin Ain, Roslina Hussin, Zainal Arifin Ahmad, Mohamadariiff Otthman, Ubaid Ullah, Mohd Fariz Ab Rahman, Mathematical Modelling on the Effects of Conductive Material and Substrate Thickness for Air Substrate Microstrip Patch Antenna, Applied Computational Electromagnetics Society Journal Vol. 35, No. 6, June 2020 (674-683)
11. Chee Lung Chin, Zainal Arifin Ahmad, Optimization of Ceramic Tile Properties from Three Malaysian Clays via Statistical Mixture Design, Arabian Journal for Science and Engineering volume 45, pages275–290(2020),
<https://doi.org/10.1007/s13369-019-04150-9>,
<https://link.springer.com/article/10.1007/s13369-019-04150-9>
12. Maliha Siddiqui, Julie Juliewatty Mohamed, Zainal Arifin Ahmad, Structural, piezoelectric, and dielectric properties of PZT-based ceramics without excess lead oxide, Journal of the Australian Ceramic Society volume 56, pages371–377(2020), <https://doi.org/10.1007/s41779-019-00337-3>,
<https://link.springer.com/article/10.1007/s41779-019-00337-3>
13. A SB Mohammed, S Kamal, M F Bin Ain, F Najmi, Z A Ahmad, Z Zahar, R Hussin, I A Zubir, MF Ab Rahman, Improving the Gain Performance of Air Substrate Patch Antenna Array Using the Effect of Conductive Material Thickness Study for 5G Applications, Journal of Physics: Conference Series, Volume 1529, The 2nd Joint International Conference on Emerging Computing Technology and Sports (JICETS) 2019 25-27 November 2019, Bandung, Indonesia, <https://iopscience.iop.org/article/10.1088/1742-6596/1529/5/052020/meta>
14. Otman MM Elbasir, MJA Mijarsh, Megat Azmi Megat Johari, Mohamed OM Mashri, Rahmi Karolina, Zainal Arifin Ahmad, Effect of various commercial of Na_2SiO_3 on compressive strength of Fly ash-based alkaline activated mortar,

IOP Conference Series: Materials Science and Engineering, Volume 801, 2nd Talenta Conference on Engineering, Science and Technology 17 October 2019, Medan, Indonesia, <https://iopscience.iop.org/article/10.1088/1757-899X/801/1/012078/meta>

2019

15. Ahmad Zahirani Ahmad Azhar, Siti Hajar Mohamad Shawal, Hanisah Manshor, Afifah Mohd Ali, Nik Akmar Rejab, Ezzat Chan Abdullah, **Zainal Arifin Ahmad**, The effects of CeO₂ addition on the physical and microstructural properties of ZTA-TiO₂ ceramics composite, *Journal of Alloys and Compounds*, Volume 773, 30 January 2019, Pages 27-33, <https://doi.org/10.1016/j.jallcom.2018.09.173>, <https://www.sciencedirect.com/science/article/pii/S0925838818334133>
16. Zhwan Dilshad Ibrahim Sktani, Nik Akmar Rejab, **Zainal Arifin Ahmad**, Tougher and harder zirconia toughened alumina (ZTA) composites through in situ microstructural formation of LaMgAl₁₁O₁₉, *International Journal of Refractory Metals and Hard Materials*, Volume 79, February 2019, Pages 60-68, <https://doi.org/10.1016/j.jirmhm.2018.11.009>, <https://www.sciencedirect.com/science/article/abs/pii/S0263436818307005>
17. Mohamadariff Othman, Wan Fahmin Faiz Wan Ali, Mohd Fadzil Ain, Zainal Arifin Ahmad, Wan Amirul Wan Mohd Mahiyiddin, Yazeed Qasaymeh, Study on modified curve fitting model in analyzing YIG resonator antenna, *Microwave and Optical Technology Letters*, **Volume 61, Issue 2** February 2019 Pages 337-342, <https://doi.org/10.1002/mop.31570>, <https://onlinelibrary.wiley.com/doi/abs/10.1002/mop.31570>
18. Erny Raudhoh Mohd Shafie, Zainal Arifin Ahmad, Nurazreena Ahmad, Synthesis of hydroxyapatite via phase transformation of calcium hydrogen phosphate dihydrate: Effects of temperature variation on phase and morphology, *Ceramics International*, Volume 45, Issue 17, Part A, 1 December 2019, Pages 21168-21174, <https://doi.org/10.1016/j.ceramint.2019.07.094>, <https://www.sciencedirect.com/science/article/pii/S027288421931911X>
19. Muhammad Balyan, Tulus Ikhsan Nasution, Irwana Nainggolan, Hasmaliza Mohamad, Zainal Arifin Ahmad, **Energy harvesting properties of chitosan film in harvesting water vapour into electrical energy**, *Journal of Materials Science: Materials in Electronics* **volume 30**, pages 16275–16286 (2019), <https://doi.org/10.1007/s10854-019-01998-3>, <https://link.springer.com/article/10.1007/s10854-019-01998-3>
20. Mohsen Ahmadipour, Mohammad Arjmand, Siti Nor Qurratu Aini Abd Aziz, Sin Ling Chiam, Zainal Arifin Ahmad, Swee-Yong Pung, Influence of annealing temperature on morphological and photocatalytic activity of sputter-coated CaCu₃Ti₄O₁₂ thin film under ultraviolet light irradiation, *Ceramics International*, Volume 45, Issue 16, November 2019, Pages 20697-20703,

<https://doi.org/10.1016/j.ceramint.2019.07.053>,
<https://www.sciencedirect.com/science/article/pii/S0272884219318723>

21. Abu Mohamad Johari, Nurhuda Marzuki, Mohd Fadzil Ain, Julie Juliewatty Mohamed, Zainal Arifin Ahmad, The effects of sintered sample thickness on the dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ceramics prepared at 1000–1100 °C in air, *Ceramics International*, Volume 45, Issue 12, 15 August 2019, Pages 14652-14662, <https://doi.org/10.1016/j.ceramint.2019.04.184>,
<https://www.sciencedirect.com/science/article/pii/S0272884219310090>
22. Mohd Fariz Ab Rahman, Mohd Fadzil Ain, Julie Juliewatty Mohamed, Zainal Arifin Ahmad, Effective dielectric loss ($\tan \delta$) reduction of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ (CCTO) via various addition of glasses, *International Journal of Applied Ceramic Technology* 16 (2), 850-861 (2019),
<https://doi.org/10.1111/ijac.13136>,
<https://ceramics.onlinelibrary.wiley.com/doi/abs/10.1111/ijac.13136>
23. Mohsen Ahmadipour, Mohammad Arjmand, Mohd Fadzil Ain, Zainal Arifin Ahmad, Swee-Yong Pung, Effect of Ar:N_2 flow rate on morphology, optical and electrical properties of CCTO thin films deposited by RF magnetron sputtering, *Ceramics International*, Volume 45, Issue 12, 15 August 2019, Pages 15077-15081, <https://doi.org/10.1016/j.ceramint.2019.04.245>,
<https://www.sciencedirect.com/science/article/pii/S027288421931082X>
24. Mohsen Ahmadipour, Mohammad Arjmand, Mohd Fadzil Ain, Zainal Arifin Ahmad, Swee-Yong Pung, **Effect of WO_3 loading on structural, electrical and dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ceramic composites**, *Journal of Materials Science: Materials in Electronics* **volume 30**, pages 6806–6810(2019), <https://doi.org/10.1007/s10854-019-00992-z>,
<https://link.springer.com/article/10.1007/s10854-019-00992-z>
25. Ayub Ahmed Janvekar, Aizat Abas, Zainal Arifin Ahmad, T Juntakan, MZ Abdullah, **Effect of Ultra-low Vegetable Oil Droplets on Microporous Media Burner Under Surface and Submerged Flames**, *Arabian Journal for Science and Engineering* **volume 44**, pages 5921–5935(2019),
<https://doi.org/10.1007/s13369-019-03737-6>,
<https://link.springer.com/article/10.1007/s13369-019-03737-6>
26. Babatunde Abiodun Salami, Megat Azmi Megat Johari, Zainal Arifin Ahmad, Taoreed Olakunle Owolabi, Mohammed Maslehuddin, Sunday Olusanya Olatunji, Modelling the early strength of alkali-activated cement composites containing palm oil fuel ash, *Proceedings of the Institution of Civil Engineers - Construction Materials*, Volume 172 Issue 3, June, 2019, pp. 133-143,
<https://doi.org/10.1680/jcoma.16.00052>,
<https://www.icevirtuallibrary.com/doi/abs/10.1680/jcoma.16.00052>
27. Abdullahi SB Mohammed, Shahanawaz Kamal, Mohd Fadzil Ain, Zainal Arifin Ahmad, Ubaid Ullah, Mohamadariiff Othman, Roslina Hussin, Mohd Fariz Ab Rahman, (2019) *Microstrip patch antenna: A review and the current state of*

the art. Journal of Advanced Research in Dynamical and Control Systems, 11 (Sp.7). pp. 510-524. ISSN 1943-023X

28. Shahanawaz Kamal, Abdullahi SB Mohammed, Mohd Fadzil Ain, Fathul Najmi, Roslina Hussin, Zainal Arifin Ahmad, Ubaid Ullah, Mohamadariff Othman, Mohd Fariz Ab Rahman, Mohamad Faiz Mohamed Omar, 28 GHz mmWave Quasi-Lumped Element Resonator Antenna on Air-Substrate, 2019 *IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE)*, Melacca, Malaysia, 2019, pp. 1-4, doi: 10.1109/APACE47377.2019.9020741, <https://ieeexplore.ieee.org/abstract/document/9020741>
29. Abdullahi SB Mohammed, Shahanawaz Kamal, Mohd Fadzil Ain, Zainal Arifin Ahmad, Ubaid Ullah, Mohamadariff Othman, Roslina Hussin, Mohd Fariz Ab Rahman, A Review Of Microstrip Patch Antenna Design At 28 Ghz For 5G Applications System, *International Journal of Scientific & Technology Research* Volume 8, Issue 10, October 2019, ISSN 2277-8616
30. Otman MM Elbasir, Megat Azmi Megat Johari, MJA Mijarsh, Zainal Arifin Ahmad, (2020) Investigation on Strength Enhancement of U-TPOFA Based Binary Blended Alkali Activated Mortar Through Addition of Fly Ash. In: Mohamed Nazri F. (eds) *Proceedings of AICCE'19. AICCE 2019. Lecture Notes in Civil Engineering*, vol 53. Springer, Cham. https://doi.org/10.1007/978-3-030-32816-0_85, https://link.springer.com/chapter/10.1007/978-3-030-32816-0_85
31. Mohamed OM Mashri, Megat Azmi Megat Johari, MJA Mijarsh, Zainal Arifin Ahmad, (2020) Effect of Various Grades of Na_2SiO_3 on Compressive Strength Development of Eggshells Powder-Based Alkaline Activated Mortar. In: Mohamed Nazri F. (eds) *Proceedings of AICCE'19. AICCE 2019. Lecture Notes in Civil Engineering*, vol 53. Springer, Cham. https://doi.org/10.1007/978-3-030-32816-0_30, https://link.springer.com/chapter/10.1007/978-3-030-32816-0_30
32. Ramzi J Shaladi, Megat Azmi Megat Johari, Zainal Arifin Ahmad, MJA Mijarsh, (2020) Compressive Strength and Microstructural Characteristics of Binary Blended Cement Mortar Containing Palm Oil Fuel Ash. In: Mohamed Nazri F. (eds) *Proceedings of AICCE'19. AICCE 2019. Lecture Notes in Civil Engineering*, vol 53. Springer, Cham. https://doi.org/10.1007/978-3-030-32816-0_116
33. Ayub Ahmed Janvekar, MZ Abdullah, Zainal Arifin Ahmad, Aizat Abas, Pramod S Kataraki, AK Ismail, Mohammad Nishat Akhtar, Hafifi Hafiz Ishak, Mazlan Mohamed, **Development of foam porous media to undergo surface and submerged flame during premixed combustion**, IOP Conference Series: Materials Science and Engineering, Volume 505 (2019) 012123 IOP Publishing doi:10.1088/1757-899X/505/1/012123, [1st International Conference on Industrial and Manufacturing Engineering 16 October 2018, Medan City North Sumatera, Indonesia](https://doi.org/10.1088/1757-899X/505/1/012123)

34. Ayub Ahmed Janvekar, MZ Abdullah, Zainal Arifin Ahmad, Aizat Abas, AK Ismail, Mohammad Nishat Akhtar, Hafifi Hafiz Ishak, Mazlan Mohamed, Influence of reaction layer thickness on surface/submerged flame during porous media combustion of micro burner, IOP Conference Series: Materials Science and Engineering, volume 508 (2019) 012072 IOP Publishing doi:10.1088/1757-899X/508/1/012072, Tarumanagara International Conference on the Applications of Technology and Engineering 22–23 November 2018, Jakarta, Indonesia
35. Hisyamuddin Hanif Ahmad, Nik Akmal Rejab, Zainal Arifin Ahmad, Mohd Fadzil Ain, Mohammadariff Othman, Wan Fahmin Faiz Wan Ali, Effect of Sm on YIG: Structural and dielectric properties evaluation, AIP Conference Proceedings **2068**, 020112 (2019); <https://doi.org/10.1063/1.5089411>, <https://aip.scitation.org/doi/abs/10.1063/1.5089411>
36. Erny Raudhoh Mohd Shafie, Nurazreena Ahmad, Zainal Arifin Ahmad, Effects of type of solution on the conversion phase of dicalcium hydrogen phosphate dihydrate to hydroxyapatite via dissolution-precipitation, AIP Conference Proceedings **2068**, 020080 (2019); <https://doi.org/10.1063/1.5089379>, <https://aip.scitation.org/doi/abs/10.1063/1.5089379>
37. Saniah Ab Karim, Muhammad Azwadi Sulaiman, Mohamad Najmi Masri, Mohamad Bashree Abu Bakar, Mohd Hazim Mohamad Amini, Mohd Fadzil Ain, Zainal Arifin Ahmad, Microstructure and dielectric properties of silicone rubber/CCTO composites, AIP Conference Proceedings **2068**, 020049 (2019); <https://doi.org/10.1063/1.5089348>, <https://aip.scitation.org/doi/abs/10.1063/1.5089348>
38. SA Karim, MA Sulaiman, MN Masri, MHM Amini, MBA Bakar, MF Ain, ZA Ahmad, Decomposition of TiO_2 , CuO and CaCO_3 for $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ formation through solid state reaction, AIP Conference Proceedings **2068**, 020054 (2019); <https://doi.org/10.1063/1.5089353>, <https://aip.scitation.org/doi/abs/10.1063/1.5089353>
39. Lynette Wei Ling Chan, Chee Lung Chin, Zainal Arifin Ahmad, Sew Seng Sow, Effect of processing parameters on coefficient of thermal expansion of ceramic tiles, AIP Conference Proceedings **2068**, 020077 (2019); <https://doi.org/10.1063/1.5089376>, <https://aip.scitation.org/doi/abs/10.1063/1.5089376>
40. Muhammad Faiz Ashri, Nik Akmal Rejab, Zainal Arifin Ahmad, Norazharuddin Shah Abdullah, Nur Azam Badarulzaman, Raja Azlan Amirul Raja Mat, Wan Fahmin Faiz Wan Ali, Densification and grain growth of microwave-sintered yttrium iron garnet, AIP Conference Proceedings **2068**, 020107 (2019); <https://doi.org/10.1063/1.5089406>, <https://aip.scitation.org/doi/abs/10.1063/1.5089406>
41. Mohsen Ahmadipour, Nik Akmar Rejab, Mohd Fariz Ab Rahman, Mohd Fadzil Ain, Zainal Arifin Ahmad, Structural, morphological and electrical properties of ZTA- La_2O_3 composite ceramic, AIP Conference Proceedings **2068**, 020090

- (2019); <https://doi.org/10.1063/1.5089389>,
<https://aip.scitation.org/doi/abs/10.1063/1.5089389>
42. Nik Akmar Rejab, Zhwan Dilshad Ibrahim Sktani, Nurul Khairunnisa Su, Banjuraizah Johar, Zainal Arifin Ahmad, Role of pentavalent niobium oxide additions on the microstructure and structure of zirconia toughened alumina using hot isostatic press sintering, AIP Conference Proceedings **2068**, 020072 (2019); <https://doi.org/10.1063/1.5089371>,
<https://aip.scitation.org/doi/abs/10.1063/1.5089371>
 43. Nor Ezzati Hamidon, Salma Abdul Molok, Hanisah Manshor, Ahmad Zahirani Ahmad Azhar, Nik Akmar Rejab, Zainal Arifin Ahmad, Afifah Mohd Ali, Hardness and fracture toughness analysis of ZTA–SWCNT ceramic cutting inserts, AIP Conference Proceedings **2068**, 020005 (2019); <https://doi.org/10.1063/1.5089304>,
<https://aip.scitation.org/doi/abs/10.1063/1.5089304>
 44. Nor Fatin Khairah Bahanurddin, Zainal Arifin Ahmad, Julie Juliewatty Mohamed, Mohammad Hafizuddin Bin Jumali, Effect of Sr dopant to the KNN-LiTaSb properties, AIP Conference Proceedings **2068**, 020082 (2019); <https://doi.org/10.1063/1.5089381>,
<https://aip.scitation.org/doi/abs/10.1063/1.5089381>
 45. Salma Abdul Molok, Nor Ezzati Hamidon, Ahmad Zahirani Ahmad Azhar, Hanisah Manshor, Nik Akmar Rejab, Zainal Arifin Ahmad, Afifah Mohd Ali, Analysis on physical and microstructural properties of ZTA-SWNT ceramic cutting tool, AIP Conference Proceedings **2068**, 020001 (2019); <https://doi.org/10.1063/1.5089300>,
<https://aip.scitation.org/doi/abs/10.1063/1.5089300>
 46. Mohd Fariz Ab Rahman, Julie Juliewatty Mohamed, Mohd Fadzil Ain, Zainal Arifin Ahmad, Dielectric resonator antenna of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ with addition of $\text{SrO-B}_2\text{O}_3\text{-SiO}_2$ glass for wideband application, AIP Conference Proceedings **2068**, 020078 (2019); <https://doi.org/10.1063/1.5089377>,
<https://aip.scitation.org/doi/abs/10.1063/1.5089377>
 47. M.A.A. Taib, Z.D.I. Sktani, N.A. Rejab, K.C. Xian, Z.A. Ahmad, Role of addition of La_2O_3 on the phase contents, microstructure and mechanical properties of ZTA-MgO ceramics, Materials Today: Proceedings, **Volume 17, Part 3**, 2019, Pages 1086-1092, <https://doi.org/10.1016/j.matpr.2019.06.520>,
<https://www.sciencedirect.com/science/article/pii/S2214785319318929>
 48. Abdullahi SB Mohammed, Shahanawaz Kamal, Mohd Fadzil Ain, Zainal Arifin Ahmad, Ubaid Ullah, Mohamadariff Othman, Roslina Hussin, Mohd Fariz Ab Rahman, A Review Of Microstrip Patch Antenna Design At 28 Ghz For 5G Applications System, International Journal of Scientific & Technology Research Volume 8, Issue 10, October 2019, ISSN 2277-8616

49. Mohd Fariz Ab Rahman, Mohd Fadzil Ain, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Effective dielectric loss ($\tan \delta$) reduction of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ (CCTO) via addition of glasses, International Journal of Applied Ceramic Technology, First published: 25 October 2018, <https://doi.org/10.1111/ijac.13136>, <https://onlinelibrary.wiley.com/doi/full/10.1111/ijac.13136>
50. Mohamadariff Othman, Wan Ramli, Wan Fahmin Faiz, Ihsan Ahmad Zubir, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Study on Modified Curve Fitting Model in Analyzing YIG Resonator Antenna, Microwave and Optical Technology Letters, DOI: 10.1002/mop.31570, ID: MOP31570, 1-6(2018) <https://onlinelibrary.wiley.com/doi/abs/10.1002/mop.31570>
51. Norfatehah Basiron, Srimala Sreekantan, Khairul Arifah Saharudin, **Zainal Arifin Bin Ahmad**, Kumaravel Vignesh, Improved Adhesion of Nonflourinated-ZnO Nanotriangle Superhydrophobic Layer on Glass Surface by Spray Method, Journal of Nanomaterials, Volume 2018, Article ID 7824827, 11 pages, <https://www.hindawi.com/journals/jnm/aip/7824827/>
52. Babatunde Abiodun Salami, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuddin, Adeshina Adewale Adewumi, Impact of $\text{Al}(\text{OH})_3$ addition to POFA on the compressive strength of POFA alkali-activated mortar, Construction and Building Materials, Volume 190, 30 November 2018, Pages 65-82, <https://doi.org/10.1016/j.conbuildmat.2018.09.076>, <https://www.sciencedirect.com/science/article/pii/S0950061818322542>
53. Zhwan Dilshad Ibrahim Sktani, Nik Akmar Rejab, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Fabrication of tougher ZTA ceramics with sustainable high hardness through (RSM) optimisation, International Journal of Refractory Metals and Hard Materials, Volume 74, August 2018, Pages 78-86, <https://doi.org/10.1016/j.ijrmhm.2018.03.006>, <https://www.sciencedirect.com/science/article/pii/S026343681730879X>
54. Mohsen Ahmadipour, Mohd Fadzil Ain, Solleti Goutham, **Zainal Arifin Ahmad**, Effects of deposition time on properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ thin film deposited on ITO substrate by RF magnetron sputtering at ambient temperature, Ceramics International, Volume 44, Issue 15, 15 October 2018, Pages 18817-18820, <https://doi.org/10.1016/j.ceramint.2018.07.115>, <https://www.sciencedirect.com/science/article/pii/S0272884218318467>
55. Ahmed Omran Alhareb, Hazizan Md Akil, **Zainal Arifin Ahmad**, Effect of nitrile butadiene rubber/ Al_2O_3 /YSZ fillers for PMMA denture base on the thermal and mechanical properties, Journal of Thermal Analysis and Calorimetry (2018) 134:941–951, DOI : 10.1007/s10973-018-7563-6, <https://link.springer.com/article/10.1007/s10973-018-7563-6>

56. Mohamad Rohaidzat bin Mohamed Rashid, Mustafa Juma A. Mijarsh, Hazman Seli, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Sago pith waste ash as a potential raw material for ceramic and geopolymer fabrication, *Journal of Material Cycles and Waste Management*, April 2018, Volume 20, Issue 2, pp 1090–1098, <https://doi.org/10.1007/s10163-017-0672-7>, <https://link.springer.com/article/10.1007%2Fs10163-017-0672-7>
57. Chee Lung Chin, **Zainal Arifin Ahmad**, Abdul Rashid Jamaludin, Sew Seng Sow, Role of moisturising and pressing pressure on ceramic tile properties, *Journal of the Australian Ceramic Society*, March 2018, Volume 54, Issue 1, pp 81–89, <https://doi.org/10.1007/s41779-017-0129-4>, <https://link.springer.com/article/10.1007/s41779-017-0129-4>
58. Hidayani Jaafar, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, The use of carbon black-TiO₂ composite prepared using solid state method as counter electrode and *E. conferta* as sensitizer for dye-sensitized solar cell (DSSC) applications, *Optical Materials*, Volume 79, May 2018, Pages 366-371, <https://doi.org/10.1016/j.optmat.2018.04.008>, <https://www.sciencedirect.com/science/article/pii/S0925346718302106>
59. Haliza Jaya, Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, Nik Noriman Zulkepli, Mohd Mustafa Al Bakri Abdullah, Compressive Mechanical Properties of Sawdust/High Density Polyethylene Composites under Various Strain Rate Loadings, *Journal of Vinyl and Additive Technology*, Volume 24, Issue 2, May 2018, 162-173, DOI 10.1002/vnl.21542, 2016. <http://onlinelibrary.wiley.com/doi/10.1002/vnl.21542/pdf>
60. Hidayani Jaafar, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Performance of *E. conferta* and *G. atroviridis* fruit extracts as sensitizers in dye-sensitized solar cells (DSSCs), *Ionics*, March 2018, Volume 24, [Issue 3](#), pp 891–899, <https://doi.org/10.1007/s11581-017-2244-1>, <https://link.springer.com/article/10.1007/s11581-017-2244-1>
61. Mohsen Ahmadipour, Nik Akmar Rejab, Mohd Fariz Ab Rahman, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, High sensitivity and selectivity of CaCu₃Ti₄O₁₂-ZnO composites towards acetone gas at room temperature, *Ceramics International* [Volume 44](#), [Issue 6](#), 15 April 2018, Pages 6904-6911, <https://doi.org/10.1016/j.ceramint.2018.01.116>, www.sciencedirect.com/science/article/pii/S0272884218301317
62. Nor Fatin Khairah Bahanurddin, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Effects of CIP compaction pressure on piezoelectric properties of K_{0.5}Na_{0.5}NbO₃, *Journal of Materials Science: Materials in Electronics*, April 2018, Volume 29, [Issue 7](#), pp 5439–5445, <https://doi.org/10.1007/s10854-017-8510-1>, <https://link.springer.com/article/10.1007/s10854-017-8510-1>

63. Mohsen Ahmadipour, Wei Kian Cheah, Mohd Fadzil Ain, Kalagadda Venkateswara Rao, **Zainal Arifin Ahmad**, Effects of deposition temperatures and substrates on microstructure and optical properties of sputtered CCTO thin film, *Materials Letters* **Volume 210**, 1 January 2018, Pages 4-7, <https://doi.org/10.1016/j.matlet.2017.08.121>, <https://www.sciencedirect.com/science/article/pii/S0167577X17313289>
64. Solleti Goutham, Satish Bykkam, Kishor Kumar Sadasivuni, Devarai Santhosh Kumar, Mohsen Ahmadipour, **Zainal Arifin Ahmad**, Kalagadda Venkateswara Rao, Room temperature LPG resistive sensor based on the use of a few-layer graphene/SnO₂ nanocomposite, *Microchimica Acta* January 2018, 185:69, <https://doi.org/10.1007/s00604-017-2537-0>, <https://link.springer.com/article/10.1007/s00604-017-2537-0>
65. Khairul Arifah Saharudin, Norfatehah Basiron, Lee Kar Chun, Srimala Sreekantan, Vignesh Kumaravel, Tuti Katrina Abdullah, **Zainal Arifin Ahmad**, Improved super-hydrophobicity of eco-friendly coating from palm oil fuel ash (POFA) waste, *Surface and Coatings Technology*, Volume 337, 15 March 2018, Pages 126-135, <https://doi.org/10.1016/j.surfcoat.2017.11.070>, <https://www.sciencedirect.com/science/article/pii/S0257897217312173>
66. F. Kundie, C. H. Azhari, **Z. A. Ahmad**, Effect of nano- and micro-alumina fillers on some properties of poly(methyl methacrylate) denture base composites, *J. Serb. Chem. Soc.* 83 (1) 75–91 (2018), doi: 10.2298/JSC170118056K <http://www.shd-pub.org.rs/index.php/JSCS/article/view/4538>
67. Ayub Ahmed Janvekar, MZ Abdullah, **ZA Ahmad**, Aizat Abas, Musavir Bashir, Mazlan Mohamed, Comparative study on porous media combustion characteristics using different discrete materials, *MATEC Web of Conferences* **153**, 01007 (2018), 26 February 2018, <https://doi.org/10.1051/mateconf/201815301007>, https://www.matec-conferences.org/articles/mateconf/abs/2018/12/mateconf_icmme2018_01007/mateconf_icmme2018_01007.html
68. AM Ali, NE Hamidon, NKM Zaki, S Mokhtar, AZA Azhar, R Bahar, **ZA Ahmad**, The effect of cutting parameters on the performance of ZTA-MgO cutting tool, *IOP Conference Series: Materials Science and Engineering*, Volume 290, 30 January 2018, <http://iopscience.iop.org/article/10.1088/1757-899X/290/1/012072/meta>
69. Fathie Kundie, Che Husna Azhari, Andanastuti Muchtar, **Zainal Arifin Ahmad**, [Effects of Filler Size on the Mechanical Properties of Polymer-filled Dental Composites: A Review of Recent Developments](https://doi.org/10.21315/jps2018.29.1.10), *Journal of Physical Science*, Vol. 29(1), 141–165, 2018, <https://doi.org/10.21315/jps2018.29.1.10>, <http://jps.usm.my/mechanical-properties-of-polymer-filled-dental-composites/>
70. Hoaida K. Shawi, Awatef M. Younis, **Zainal A. Ahmad**, Hazizan Md Akil, Influence of Environmental Exposure on Absorption, Solubility and Flexural

Properties of α -cordierite Filled Denture Base Poly (Methyl Methacrylate),
Libyan Journal of Medical Research, Vol. 12 No.1 (2018), 1-19,
[http://www.ljmr.com.ly/jornal/Vol-12/Vol%2012-1\(4\).pdf](http://www.ljmr.com.ly/jornal/Vol-12/Vol%2012-1(4).pdf)

71. Johar BANJURAIZAH, Yong Por ONG and **Zainal Arifin AHMAD**, Effect of Calcination Temperature on Titanium Dioxide Synthesized by Sol-Gel Method, Int J Cur Res Eng Sci Tech, 1 (S1):68-74 | DOI: 10.30967/ijcrset.1.S1.2018.68-74, http://www.ijcrset.com/special_issue.html
72. T.N. Izzah TUAN AB RASHID, Hasmaliza MOHAMAD, **Zainal Arifin AHMAD** and Julie Juliewatty MOHAMED, Effect of Poling Parameter on Piezoelectric and Dielectric Properties of La and Sr Doped PZT, Int J Cur Res Eng Sci Tech, 1 (S1):75-81 | DOI: 10.30967/ijcrset.1.S1.2018.75-81, http://www.ijcrset.com/special_issue.html
73. Mohamad Zaky NOH, Hassan Usman JAMO, Mohd Al Amin MUHAMAD NOR and **Zainal Arifin AHMAD**, Effect of Soaking Time to the Bending Strength of Porcelain with Palm Oil Fuel Ash, Int J Cur Res Eng Sci Tech, 1 (S1):82-87 | DOI: 10.30967/ijcrset.1.S1.2018.82-87, http://www.ijcrset.com/special_issue.html
74. Nur Shafiza Afzan SHARIF, Julie Juliewatty MOHAMED, Mohd Qusyairie SAARI, Mohd Fadzil AIN, **Zainal Arifin AHMAD**, Mohd Fariz AB RAHMAN, Improved Densification and Dielectric properties of ZBS-doped CaCu3Ti4O12 Electroceramics, Int J Cur Res Eng Sci Tech, 1 (S1):118-123 | DOI: 10.30967/ijcrset.1.S1.2018.118-123, http://www.ijcrset.com/special_issue.html
75. Nurul Khairunnisa SU, Nik Akmar REJAB, Johar BANJURAIZAH, Muhammad Asri IDRIS and **Zainal Arifin AHMAD**, Influence of Pentavalent Niobium on Microstructural and Mechanical Properties of ZTA Ceramic Composite via Cold Isostatic Pressing, Int J Cur Res Eng Sci Tech, 1 (S1):124-129 | DOI: 10.30967/ijcrset.1.S1.2018.124-129, http://www.ijcrset.com/special_issue.html
76. Nik Akmar REJAB, Abdul Salam AZMAN, Nurul Khairunnisa SU, Banjuraizah JOHAR and **Zainal Arifin AHMAD**, Microstructure and Hardness of Zirconia Toughened Alumina (ZTA) Ceramics by Hot Isostatic Press Sintering, Int J Cur Res Eng Sci Tech, 1 (S1):135-140 | DOI: 10.30967/ijcrset.1.S1.2018.135-140, http://www.ijcrset.com/special_issue.html
77. Izwan JOHARI, Wan Norsariza WAN HUSIN, **Zainal Arifin AHMAD**, and Md Azree OTHUMAN MYDIN, Microstructure and Strength Enhancement of Portland Composite Concrete using Polyvinyl Alcohol (PVA) and Silica Fume as Replacement Material, Int J Cur Res Eng Sci Tech, 1 (S1):141-146 | DOI: 10.30967/ijcrset.1.S1.2018.141-146, http://www.ijcrset.com/special_issue.html

78. Babatunde Abiodun SALAMI, Megat Azmi MEGAT JOHARI, **Zainal Arifin AHMAD** and Mohammed MASLEHUDDIN, Performance of POFA-Based Alkali-Activated Mortar Exposed to Elevated Temperatures, Int J Cur Res Eng Sci Tech, 1 (S1):147-153 | DOI: 10.30967/ijcrset.1.S1.2018.147-153, http://www.ijcrset.com/special_issue.html
79. Chee Lung CHIN, **Zainal Arifin AHMAD**, Sew Seng SOW, Rheological Behaviour and Fired Properties of Malaysia Clay from Mersing(Johor) In Application to Manufacturing of Ceramic Tile, Int J Cur Res Eng Sci Tech, 1 (S1):160-165 | DOI: 10.30967/ijcrset.1.S1.2018.160-165, http://www.ijcrset.com/special_issue.html
80. Mohd Fariz AB RAHMAN, Julie Juliewatty MOHAMED, Mohd Fadzil AIN and **Zainal Arifin AHMAD**, Effect of Borosilicate Glass Addition on the Dielectric Properties of CCTO-Glass Composites for DRA Applications, Int J Cur Res Eng Sci Tech, 1 (S1):233-238 | DOI: 10.30967/ijcrset.1.S1.2018.233-238, http://www.ijcrset.com/special_issue.html
81. Mohsen AHMADIPOUR, Mohd Fadzi IAIN and **Zainal Arifin AHMAD**, Humidity Sensing Properties of CCTO Thin Films Grown by Radio Frequency Magnetron Sputtering:Substrates Dependent, Int J Cur Res Eng Sci Tech, 1 (S1):245-250 | DOI: 10.30967/ijcrset.1.S1.2018.245-250, http://www.ijcrset.com/special_issue.html
82. Hidayani JAAFAR, **Zainal Arifin AHMAD** and Mohd Fadzil AIN, Improved Performance of Dye Sensitized Solar Cell with Nb-Doped TiO₂ Photoanodes using Solid State Method, Int J Cur Res Eng Sci Tech, 1 (S1):256-261 | DOI: 10.30967/ijcrset.1.S1.2018.256-261, http://www.ijcrset.com/special_issue.html
83. Nor Fatin Khairah BAHANURDDIN, Julie Juliewatty MOHAMED and **Zainal Arifin AHMAD**, Enhancement of K_{0.5}Na_{0.5}NbO₃ (KNN) Properties through Optimization of Pressure Applied during Sintering Process via HIP Methods, Int J Cur Res Eng Sci Tech, 1 (S1):348-353 | DOI: 10.30967/ijcrset.1.S1.2018.348-353, http://www.ijcrset.com/special_issue.html
84. Mohamad Johari ABU, Mohd Fadzil AIN, Julie Juliewatty MOHAMED and **Zainal Arifin AHMAD**, Structural Defect(s) in CaCu₃+xTi₄O₁₂+? Solid Solution Estimated via Reitveld Refinement Method, Int J Cur Res Eng Sci Tech, 1 (S1):429-434 | DOI: 10.30967/ijcrset.1.S1.2018.429-434, http://www.ijcrset.com/special_issue.html
85. Wan Fahmin Faiz WAN ALI, Maslinda KAMARUDIN Izman SUDIN, Nik Akmar REJAB, Mohd Fadzil AIN, Norazharuddin Shah ABDULLAH and **Zainal Arifin AHMAD**, Structural Evolution of YIG during Microwave and Conventional Sintering at 1000 °C, Int J Cur Res Eng Sci Tech, 1 (S1):435-440 | DOI: 10.30967/ijcrset.1.S1.2018.435-440, http://www.ijcrset.com/special_issue.html

86. Afifah MOHD ALI, Nurul Nabihah JANAL, Nor Ezzati HAMIDON, Ahmad Zahirani AHMAD AZHAR, Suhaily MOKHTAR, Rubina BAHAR and **Zainal Arifin AHMAD**, The Relationship of Cutting Chip Type, Length and Thickness to Wear of Zirconia Toughened Alumina Added with Magnesium Oxide (ZTA-MgO) Cutting Tool, Int J Cur Res Eng Sci Tech, 1 (S1):452-457 | DOI: 10.30967/ijcrset.1.S1.2018.452-457, http://www.ijcrset.com/special_issue.html
87. Ahmad Zahirani Ahmad AZHAR, Nor Amyra Zulianey, Hanisah MANSHOR, Wee Sing YEO, Afifah MOHD ALI, Nik Akmar REJAB and **Zainal Arifin AHMAD**, Effect of Single Walled Carbon Nanotube Addition to the Physical Properties of Monolithic Alumina, Int J Cur Res Eng Sci Tech, 1 (S1):585-590 | DOI: 10.30967/ijcrset.1.S1.2018.585-590, http://www.ijcrset.com/special_issue.html
88. Mohsen AHMADIPOUR, Mohd Fadzil AIN and **Zainal Arifin AHMAD**, Deposition and Characteristics of Sputtered Coated CCTO Thin Layer on Silicon Wafer, Int J Cur Res Eng Sci Tech, 1 (S1):591-595 | DOI: 10.30967/ijcrset.1.S1.2018.591-595, http://www.ijcrset.com/special_issue.html
89. Nik Akmar REJAB, Mohamadariff OTHMAN, Mohd Fariz AB RAHMAN, **Zainal Arifin AHMAD**, Mohd Fadzil AIN, Dielectric Resonator Antenna of Nd-doped BaTiO₃ for X-Band Applications, Int J Cur Res Eng Sci Tech, 1 (S1):596-602 | DOI: 10.30967/ijcrset.1.S1.2018.596-602, http://www.ijcrset.com/special_issue.html
90. Mohd Fariz AB RAHMAN, Julie Juliewatty MOHAMED, Mohd Fadzil AIN, Nik Akmar REJAB, Hasmaliza MOHAMAD and **Zainal Arifin AHMAD**, Characterization of Phase formation and Microstructural Evolution on Dielectric Properties of SrO-B₂O₃-SiO₂ and BaO-SrO-Nb₂O₅-B₂O₃-SiO₂ glasses, Int J Cur Res Eng Sci Tech, 1 (2): 1-4 | DOI: 10.30967/ijcrset.1.2.2018.1-4, http://www.ijcrset.com/special_issue.html
91. MF Ab Rahman, NA Rejab, **ZA Ahmad**, JJ Mohamed, MF Ain, S Abdullah, Influence of Soda Lime Glass Addition on the Dielectric Properties of CCTO Ceramics, Journal of Physics: Conference Series, Volume 1082 (1) 012042, <http://iopscience.iop.org/article/10.1088/1742-6596/1082/1/012042/meta>, Publication date 2018/8
92. NA Rejab, **ZA Ahmad**, MF Ab Rahman, NK Su, ZTA Hardness Enhancement via Hot Isostatic Press Sintering, Journal of Physics: Conference Series, Volume 1082 (1) 012038, <http://iopscience.iop.org/article/10.1088/1742-6596/1082/1/012038/meta>, Publication date 2018/8
93. M Ahmadipour, NA Rejab, MF Ab Rahman, MF Ain, **ZA Ahmad**, CCTO thin film synthesis by radio frequency magnetron sputtering, Journal of Physics: Conference Series, Volume 1082 (1) 012101,

<http://iopscience.iop.org/article/10.1088/1742-6596/1082/1/012101/meta>,
Publication date 2018/8

94. TNI Tuan Ab Rashid, H Mohamad, **ZA Ahmad**, JJ Mohamed, Fabrication of Calcium Doped PISZT Ceramics using High Planetary Mill Method, Journal of Physics: Conference Series, Volume 1082 (1) 012040,
<http://iopscience.iop.org/article/10.1088/1742-6596/1082/1/012040/meta>,
Publication date 2018/8
95. MF Ab Rahman, **ZA Ahmad**, JJ Mohamed, MF Ain, M Ahmadipour, NA Rejab, Journal of Physics: Conference Series, Volume 1082 (1) 012039,
<http://iopscience.iop.org/article/10.1088/1742-6596/1082/1/012039/meta>,
Publication date 2018/8

2017

96. Nik Akmar Rejab, Lee Wei Kean, Zhwan Dilshad Ibrahim Sktani, **Zainal Arifin Ahmad**, [International Journal of Refractory Metals and Hard Materials](https://doi.org/10.1016/j.ijrmhm.2017.08.002), Volume 69, December 2017, Pages 60-65, Hardness and toughness enhancement of CeO₂ addition to ZTA ceramics through HIPping technique,
<https://doi.org/10.1016/j.ijrmhm.2017.08.002>,
<https://www.sciencedirect.com/science/article/pii/S0263436817303980>
97. Hanisah Manshor, Ezzat Chan Abdullah, Ahmad Zahirani Ahmad Azhar, Wee Sing Yeo, Zainal Arifin Ahmad, Microwave sintering of zirconia-toughened alumina (ZTA)-TiO₂-Cr₂O₃ ceramic composite: The effects on microstructure and properties, Journal of Alloys and Compounds, Volume 722, 25 October 2017, Pages 458-466,
<https://www.sciencedirect.com/science/article/pii/S092583881732114X>,
<https://doi.org/10.1016/j.jallcom.2017.06.115>
98. Hidayani Jaafar, **Zainal Arifin Ahmad**, Mohd Fadzil Ain, Effect of Nb-doped TiO₂ photoanode using solid state method with E. conferta as sensitizer on the performance of dye sensitized solar cell, Optik - International Journal for Light and Electron Optics, Volume 144, September 2017, Pages 91-101,
<https://doi.org/10.1016/j.ijleo.2017.06.097>,
<https://www.sciencedirect.com/science/article/pii/S0030402617307660>
99. Mohsen Ahmadipour, Siti Nursalma Ayub, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Structural, surface morphology and optical properties of sputter-coated CaCu₃Ti₄O₁₂ thin film: influence of RF magnetron sputtering power, *Materials Science in Semiconductor Processing*, Volume 66, 1 August 2017, Pages 157-161, 10.1016/j.mssp.2017.04.019,
<http://www.sciencedirect.com/science/article/pii/S1369800117306170>
100. Chin Chee Lung, **Zainal Arifin Ahmad**, Sow Sew Seng, Relationship between the thermal behavior of the clays and their mineralogical and

chemical composition: example of Ipoh, Kuala Rompin and Mersing (Malaysia), *Applied Clay Science*, *Volume 143*, July 2017, Pages 327-335, 10.1016/j.clay.2017.03.037, <http://www.sciencedirect.com/science/article/pii/S0169131717301473>

101. Ayub Ahmed Janvekar, M.A. Miskam, Aizat Abas, Zainal Arifin Ahmad, T. Juntakan, M.Z. Abdullah, Effects of the preheat layer thickness on surface/submerged flame during porous media combustion of micro burner, *Energy*, *Volume 122*, 1 March 2017, Pages 103–110, <http://dx.doi.org/10.1016/j.energy.2017.01.056>, <http://www.sciencedirect.com/science/article/pii/S0360544217300567>
102. Maliha Siddiqui, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Piezoelectric and dielectric properties of $\text{Pb}_{0.93}\text{La}_{0.02}\text{Sr}_{0.05}(\text{Zr}_{0.52}\text{Ti}_{0.48})\text{O}_3$ ceramics doped with Li_2CO_3 at low sintering temperature, *Ceramics International*, 43 (2)(2017) 2644-2649, <http://dx.doi.org/10.1016/j.ceramint.2016.11.075>, <http://www.sciencedirect.com/science/article/pii/S0272884216320818>
103. Babatunde Abiodun Salami, Megat Azmi Megat Johari, Zainal Arifin Ahmad, Mohammad Maslehuddin, Durability performance of Palm Oil Fuel Ash-based Engineered Alkaline-activated Cementitious Composite (POFA-EACC) mortar in sulfate environment, *Construction and Building Materials*, 131(2017) 229-244, <http://dx.doi.org/10.1016/j.conbuildmat.2016.11.048>, <http://www.sciencedirect.com/science/article/pii/S0950061816318086>
104. Ahmed O. Alhareb, Hazizan Md. Akil, **Zainal Arafin Ahmad**, Impact strength, fracture toughness and hardness improvement of PMMA denture base through addition of nitrile rubber/ceramic fillers, *The Saudi Journal for Dental Research*, *Volume 8*, Issues 1–2, January–July 2017, Pages 26–34, 10.1016/j.sjdr.2016.04.004, <http://www.sciencedirect.com/science/article/pii/S2352003516300041>
105. Mohsen Ahmadipour, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Effects of annealing temperature on the structural, morphology, optical properties and resistivity of sputtered CCTO thin film, *Journal of Materials Science: Materials in Electronics*, DOI: 10.1007/s10854-017-7067-3, <http://link.springer.com/article/10.1007/s10854-017-7067-3>
106. Mohsen Ahmadipour, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Effect of thickness on humidity sensing properties of RF magnetron sputtered $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ thin films on alumina substrate, *IEEE Sensors Journal*, Vol. 17, No. 11, June 1, 3224-3230, 2017 - DOI 10.1109/JSEN.2017.2686874, 21-Mar-2017, <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7885497>
107. Mohamadariff Othman, Wan Ramli, Wan Fahmin Faiz, Ihsan Ahmad Zubir, Mohd Fadzil Ain, Zainal Arifin Ahmad, A novel homogeneous stacked

yttrium ion garnet resonator antenna for wideband application, *Microwave and Optical Technology Letters*, Volume 59, Issue 12, December 2017, Pages 3036–3041, DOI: 10.1002/mop.30878, <http://onlinelibrary.wiley.com/doi/10.1002/mop.30878/full>

108. Seyi Stephen Olokede, Syasana Basyirah Binti Mohammed Zaki, Nor Muzlifah Mahyuddin, Mohd Fadzil Ain, Zainal Arifin Ahmad, Design of a negative conductance dielectric resonator oscillator for X-band applications, *Radioelectronics and Communications Systems* 60 (9), 413-422, <https://doi.org/10.3103/S0735272717090059>, <https://link.springer.com/article/10.3103/S0735272717090059>

109. Babatunde Abiodun Salami, Megat Azmi Megat Johari, Zainal Arifin Ahmad, Mohammed Maslehuiddin, POFA-Engineered Alkali-activated Cementitious Composite Performance in Acid Environment, *Journal of Advanced Concrete Technology* 15 (11), 684-699, <https://doi.org/10.3151/jact.15.684>, https://www.jstage.jst.go.jp/article/jact/15/11/15_684/article/-char/ja/

110. Ubaid Ullah, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, A Review of Wideband Circularly Polarized Dielectric Resonator Antennas, *China Communications*, 2017, Volume: 14, Issue: 6, 65-79, 28 June 2017; DOI: 10.1109/CC.2017.7961364, <http://ieeexplore.ieee.org/document/7961364/>

111. Kho Chun Min, Siti Kartini Binti Enche Ab Rahim, **Zainal Arifin Ahmad**, Norazharuddin Shah Abdullah, A Review on Microdialysis Calibration Methods: The Theory and Current Related Efforts, *Molecular Neurobiology*, July 2017, Volume 54, [Issue 5](#), pp 3506–3527, DOI: 10.1007/s12035-016-9929-8, <http://link.springer.com/article/10.1007/s12035-016-9929-8>

112. W.K. Lee, M.M. Ratnam, **Z.A. Ahmad**, Detection of chipping in ceramic cutting inserts from workpiece profile during turning using fast Fourier transform (FFT) and continuous wavelet transform (CWT), *Precision Engineering*, 47(2017) 406-423, <http://dx.doi.org/doi:10.1016/j.precisioneng.2016.09.014>, <http://www.sciencedirect.com/science/article/pii/S0141635916302379>

113. Otman M. M. Elbasir, Megat Azmi Megat Johari, Zainal Arifin Ahmad, Effect of fineness of palm oil fuel ash on compressive strength and microstructure of alkaline activated mortar, *European Journal of Environmental and Civil Engineering*, 1-17, <http://dx.doi.org/10.1080/19648189.2016.1271362>, <http://www.tandfonline.com/doi/full/10.1080/19648189.2016.1271362>

114. W. H. Chan, M. N. Mazlee, **Zainal A. Ahmad**, J. B. Shamsul and M. A. M. Ishak, The Development of Low Cost Adsorbents From Clay and Waste Materials: A Review, *Journal of Material Cycles and Waste Management*,

January 2017, Volume 19, [Issue 1](#), pp 1–14, DOI 10.1007/s10163-015-0396-5, <http://link.springer.com/article/10.1007%2Fs10163-015-0396-5#page-1>

115. W. H. Chan, M. N. Mazlee, **Zainal Arifin Ahmad**, J. B. Shamsul and M. A. M. Ishak, Effects of Fly Ash Addition on Physical Properties of Porous Clay-Fly Ash Composites via Polymeric Replica Technique, *Journal of Material Cycles and Waste Management*, (2017) 19:794–803, DOI 10.1007/s10163-016-0481-4, <https://link.springer.com/article/10.1007/s10163-016-0481-4>

116. Kausar Harun, Muhamad Kamil Yaakob, Mohamad Fariz Mohamad Taib, Bouchta Sahraoui, Zainal Arifin Ahmad, Ahmad Azmin Mohamad, Efficient diagnostics of the electronic and optical properties of defective ZnO nanoparticles synthesized using the sol–gel method: experimental and theoretical studies, *Materials Research Express* 4 (8), 085908, <https://doi.org/10.1088/2053-1591/aa8151>, <http://iopscience.iop.org/article/10.1088/2053-1591/aa8151/meta>

117. Babatunde Abiodun Salami, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammad Maslehuddin, Aadam Olu, Taoreed Owolabi, Modelling the early strength of alkali-activated cement composites containing palm oil fuel ash, *Construction Materials*, <http://dx.doi.org/10.1680/jcoma.16.00052>, <http://www.icervirtuallibrary.com/doi/10.1680/jcoma.16.00052>

118. Kar Chun Lee, Srimala Sreekantan, Zainal Arifin Ahmad, Khairul Arifah Saharudin, Mustaffa Ali Azhar Taib, Nucleation of octahedral titanate crystals using waste anodic electrolyte from the anodization of TiO₂ nanotubes, ***CrystEngComm***, 2017, **19**, 6406-6411, DOI:10.1039/C7CE01549F, <http://pubs.rsc.org/en/content/articlelanding/2017/ce/c7ce01549f#!divAbstract>

119. AM Ali, NE Hamidon, NKM Zaki, S Mokhtar, AZA Azhar, R Bahar, ZA Ahmad, The effect of cutting parameters on the performance of ZTA-MgO cutting tool, *IOP Conf. Series: Materials Science and Engineering* **290** (2017) 012072 doi:10.1088/1757-899X/290/1/012072, <http://iopscience.iop.org/article/10.1088/1757-899X/290/1/012072/meta>

120. Rosyaini Afindi Zaman, Mohamad Johari Abu, Mohd Fariz Ab Rahman, Wan Fahmin Faiz Wan Ali, Julie Juliewatty Mohamed, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Dielectric Properties of Al₂O₃/CaCu₃Ti₄O₁₂ Composite at High Frequency Range, *Materials Science Forum*, Vol. 888, pp. 7-11, 2017, 10.4028/www.scientific.net/MSF.888.7, <http://www.scientific.net/Paper/Preview/504512>

121. [Mohamad Johari Abu](#), [Rosyaini Afindi Zaman](#), [Mohd Fariz Ab Rahman](#), [Mohsen Ahmadipour](#), [Julie Juliewatty Mohamed](#), [Mohd Fadzil Ain](#), **Zainal Arifin Ahmad**, Dielectric Properties of CaCu₃Ti₄O₁₂/Al₂O₃ Composites", *Materials Science Forum*, Vol. 888, pp. 12-16, 2017, 10.4028/www.scientific.net/MSF.888.12, <http://www.scientific.net/Paper/Preview/506146>

122. [Mohd Fariz Ab Rahman](#), [Mohamad Johari Abu](#), [Rosyaini Afindi Zaman](#), [Julie Juliewatty Mohamed](#), [Mohd Fadzil Ain](#), [Mohamad Kamarol Mohd Jamil](#), [Zainal Arifin Ahmad](#), Effect of Calcination Temperature on the Breakdown Strength and Energy Density of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Ceramic", Materials Science Forum, Vol. 888, pp. 23-27, 2017, 10.4028/www.scientific.net/MSF.888.23, <http://www.scientific.net/Paper/Preview/506071>
123. Hamdan Yahya, Mohd Roslee Othman, **Zainal Arifin Ahmad**, "Effect of Firing Temperature on Mechanical and Physical Properties of Porcelain Balls as Grinding Media", Materials Science Forum, Vol. 888, pp. 37-41, 2017, 10.4028/www.scientific.net/MSF.888.37, <http://www.scientific.net/Paper/Preview/505844>
124. N. F. K. Bahanurddin, J. J. Mohamed, **Z. A. Ahmad**, "Effect of Sintering Temperature on Structure and Dielectric Properties of Lead Free $\text{K}_{0.5}\text{Na}_{0.5}\text{NbO}_3$ Prepared via Hot Isostatic Pressing", Materials Science Forum, Vol. 888, pp. 42-46, 2017, 10.4028/www.scientific.net/MSF.888.42, <http://www.scientific.net/Paper/Preview/506048>
125. Maliha Siddiqui, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Structural Properties of $\text{Pb}(\text{Zr}_{0.52}\text{Ti}_{0.38}\text{Li}_{0.1})\text{O}_3$ Prepared via High Planetary Mill, Materials Science Forum, Vol. 888, pp. 91-95, 2017, 10.4028/www.scientific.net/MSF.888.91, <http://www.scientific.net/Paper/Preview/506151>
126. Nur Shafiza Afzan Sharif, Julie Juliewatty Mohamed, Hasmaliza Mohamed, **Zainal Arifin Ahmad**, Wan Azhar Wan Yusoff, Synthesis and Characterization of $\text{Pb}(\text{Zr}_{0.52}\text{Ti}_{0.48})\text{O}_3$ Properties via High Planetary Mill, Materials Science Forum, Vol. 888, pp. 96-102, 2017, 10.4028/www.scientific.net/MSF.888.96, <http://www.scientific.net/Paper/Preview/507330>
127. Johar Banjuraizah, Zaimi Zul@Azhar, **Zainal Arifin Ahmad**, Synthesis and Characterization of Zirconia-Alumina Ceramics Doped Niobium Oxide, Materials Science Forum, Vol. 888, pp. 103-107, 2017, 10.4028/www.scientific.net/MSF.888.103, <http://www.scientific.net/Paper/Preview/506060>
128. Afifah Mohd Ali, Ahmad Zahirani Ahmad Azhar, Norazharuddin Shah Abdullah, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Tetragonal and Monoclinic Phase Transformation of ZTA-MgO Ceramic Cutting Tool by Machining Process, Materials Science Forum, Vol. 888, pp. 108-111, 2017, 10.4028/www.scientific.net/MSF.888.108, <http://www.scientific.net/Paper/Preview/505988>
129. Ahmed Omran Alhareb, Hazizan Md Akil, **Zainal Arifin Ahmad**, Influences of NBR/ Al_2O_3 /YSZ as Fillers for PMMA Composite on the Thermal Properties, Materials Science Forum, Vol. 888, pp. 198-202, 2017,

- 10.4028/www.scientific.net/MSF.888.198,
<http://www.scientific.net/Paper/Preview/509420>
130. Erny Raudhoh Mohd Shafie, **Zainal Arifin Ahmad**, Nurazreena Ahmad, Study on Conversion Time of Brushite to Monetite via Hydrothermal Method, Materials Science Forum, Vol. 888, pp. 319-323, 2017, 10.4028/www.scientific.net/MSF.888.319,
<http://www.scientific.net/Paper/Preview/509814>
131. Mohamad Rohaidzat Mohamed Rashid, Hazman Seli, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Sago Pith Waste Ash as an Addition to Fly Ash-Based Geopolymer Mortar, Materials Science Forum, Vol. 888, pp. 462-465, 2017, 10.4028/www.scientific.net/MSF.888.462,
<http://www.scientific.net/Paper/Preview/505741>
132. Mohamad Faiz Omar, [Mohd Fadzil Ain](#), K.A. Norhassim, A. Marzuki, M.Z. Abdullah, **Zainal Arifin Ahmad**, Analysis of Hybrid Ring Coupler Double-Balanced Mixer and MMIC Double-Balanced Mixer for Ka-Band Wireless Communication Systems, 9th International Conference on Robotic, Vision, Signal Processing and Power Applications, Volume 398 of the series [Lecture Notes in Electrical Engineering](#), pp 555-561,
http://link.springer.com/chapter/10.1007/978-981-10-1721-6_60
133. Mohamad Faiz Omar, [Mohd Fadzil Ain](#), K.A. Norhassim, A. Marzuki, M.Z. Abdullah, **Zainal Arifin Ahmad**, Analysis of Passive Frequency Multiplier Designs for K-Band Wireless Communication Systems, 9th International Conference on Robotic, Vision, Signal Processing and Power Applications, Volume 398 of the series [Lecture Notes in Electrical Engineering](#), pp 581-586,
http://link.springer.com/chapter/10.1007/978-981-10-1721-6_63
134. Ahmad Zahirani Ahmad Azhar, Mokhzani Mokhtar, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Effects of TiN Single Layer Coating on the Wear of ZTA Cutting Inserts and Surface Roughness of Workpiece, Materials Science Forum, Vol. 888, pp. 52-56, 2017, 10.4028/www.scientific.net/MSF.888.52,
<http://www.scientific.net/Paper/Preview/505749>
135. Johar Banjuraizah, Tinesha Selvaraj, **Zainal Arifin Ahmad**, Elemental, Thermal, and Structural Characterization of ZnO Doped 8 mol% Yttria-Stabilized Zirconia (8YSZ) Ceramics, Materials Science Forum, Vol. 888, pp. 57-61, 2017, 10.4028/www.scientific.net/MSF.888.62,
<http://www.scientific.net/Paper/Preview/506268>
136. Tuan Nur Izzah Tuan Ab Rashid, **Zainal Arifin Ahmad**, Julie Juliewatty Mohamed, Hasmaliza Mohamad, Fabrication of Lanthanum and Strontium Doped PZT Ceramics Using Solid State Reaction Method, Materials Science Forum, Vol. 888, pp. 62-65, 2017, 10.4028/www.scientific.net/MSF.888.62,
<http://www.scientific.net/Paper/Preview/506049>

137. Wan Fahmin Faiz Wan Ali, Maslinda Kamarudin, Norazharuddin Shah Abdullah, **Zainal Arifin Ahmad**, Investigation of YIG's Active Site Using Density Functional Theory, Materials Science Forum, Vol. 888, pp. 76-80, 2017, 10.4028/www.scientific.net/MSF.888.76, <http://www.scientific.net/Paper/Preview/510427>
138. Mohamad Zaky Noh, Hassan Usman Jamo, **Zainal Arifin Ahmad**, The Bending Strength of the Porcelain with the Substitution of Quartz by Palm Oil Fuel Ash, Materials Science Forum, Vol. 888, pp. 112-116, 2017, 10.4028/www.scientific.net/MSF.888.112, <http://www.scientific.net/Paper/Preview/505921>
139. Saniah Ab Karim, Muhammad Azwadi Sulaiman, Mohamad Najmi Masri, **Zainal Arifin Ahmad**, Mohd Fadzil Ain, The Dielectric Properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ at Various Calcination Temperatures, Materials Science Forum, Vol. 888, pp. 117-120, 2017, 10.4028/www.scientific.net/MSF.888.117, <http://www.scientific.net/Paper/Preview/505956>
140. Nurul Khairunnisa Su, Muhammad Fadhlullah Al Amin Abdul Razak, Johar Banjuraizah, Muhammad Asri Idris, **Zainal Arifin Ahmad**, The Role of $\text{Nb}_2\text{Zr}_6\text{O}_{17}$ Phase on the Hardness and Fracture Toughness of ZTA/ Nb_2O_5 by Cold Isostatic Pressing, Materials Science Forum, Vol. 888, pp. 126-130, 2017, 10.4028/www.scientific.net/MSF.888.126, <http://www.scientific.net/Paper/Preview/505923>
141. Johar Banjuraizah, Tinesha Selvaraj, **Zainal Arifin Ahmad**, Synthesis and Characterization of Cobalt Doped with Ytria-Stabilized Zirconia Electrolytes, Materials Science Forum, Vol. 888, pp. 151-156, 2017, 10.4028/www.scientific.net/MSF.888.151, <http://www.scientific.net/Paper/Preview/506253>
142. Salwa Ismail, Mohammad Faizal Mohd Razali, Izwan Johari, **Zainal Arifin Ahmad**, Shah Rizal Kasim, Effect of Curing Time and Sintering to the Properties of Geopolymer Mortars, Materials Science Forum, Vol. 888, pp. 184-187, 2017, 10.4028/www.scientific.net/MSF.888.184, <http://www.scientific.net/Paper/Preview/505981>
143. Izwan Johari, Amri Hamid, Shah Rizal Kasim, **Zainal Arifin Ahmad**, Microstructure and Mechanical Properties of Cement Mortar Incorporate with Coated Expanded Polystyrene Beads, Materials Science Forum, Vol. 888, pp. 234-238, 2017, 10.4028/www.scientific.net/MSF.888.234, <http://www.scientific.net/Paper/Preview/506228>
144. Hazman Seli, Nik Akmar Rejab, **Zainal Arifin Ahmad**, Preliminary Determination of Minerals in Mukah Coal, Materials Science Forum, Vol. 888, pp. 458-461, 2017, 10.4028/www.scientific.net/MSF.888.458, <http://www.scientific.net/Paper/Preview/507447>.

145. Ayub Ahmed Janvekar, MZ Abdullah, ZA Ahmad, Aizat Abas, Ahmed A Hussien, Musavir Bashir, Qummare Azam, Assessment of porous media burner for surface/submerged flame during porous media combustion, AIP Conference Proceedings 1818 (1), 020020, <https://doi.org/10.1063/1.4976884>, <http://aip.scitation.org/doi/abs/10.1063/1.4976884>
146. Abdullallah Muftah Menshaz, Megat Azmi Megat Johari, Zainal Arifin Ahmad, Characterization of metakaolin treated at different calcination temperatures, AIP Conference Proceedings **1892**, 020028 (2017); <https://doi.org/10.1063/1.5005659>, <http://aip.scitation.org/doi/abs/10.1063/1.5005659>

2016

147. Mohamad Johari Abu, Julie Juliewatty Mohamed, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Phase structure, microstructure and broadband dielectric response of Cu nonstoichiometry $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ceramic, *Journal of Alloys and Compounds*, (2016), 683 (2016) 579-589, <http://dx.doi.org/10.1016/j.jallcom.2016.04.318>, <http://www.sciencedirect.com/science/article/pii/S092583881631338X>
148. Mohsen Ahmadipour, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Effect of thickness on surface morphology, optical and humidity sensing properties of RF magnetron sputtered CCTO thin films, *Applied Surface Science*, Volume 385, 1 November 2016, Pages 182-190, doi:10.1016/j.apsusc.2016.05.098, <http://www.sciencedirect.com/science/article/pii/S0169433216311175>
149. Nik Akmar Rejab, Zhwan Dilshad Ibrahim Sktani, Tan Yong Dar, Wan Fahmin Faiz Wan Ali, Abdul Rashid Jamaludin, **Zainal Arifin Ahmad**, The capability of hibonite elongated grains to influence physical, microstructural, and mechanical properties of zirconia toughened alumina– CeO_2 – MgO ceramics, *International Journal of Refractory Metals and Hard Materials*, Volume 58, August 2016, Pages 104-109, doi:10.1016/j.ijrmhm.2016.04.008, <http://www.sciencedirect.com/science/article/pii/S0263436816300105?np=y>
150. Mohsen Ahmadipour, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, A short review on copper calcium titanate (CCTO) electroceramic: synthesis methods, structural and dielectric properties, deposition techniques of thin films, and sensing application, *Nano-Micro Letters*, 8(4), 291-311, DOI: 10.1007/s40820-016-0089-1, 2016. <http://link.springer.com/article/10.1007%2Fs40820-016-0089-1>
151. Abdul Rashid Jamaludin, Shah Rizal Kasim, Mohd Zulkifly Abdullah, **Zainal Arifin Ahmad**, Physical, mechanical, and thermal properties improvement of porous alumina substrate through dip-coating and re-sintering procedures, *Ceramics International*, Volume 42, Issue 6, 1 May

- 2016, Pages 7717–7729, DOI:10.1016/j.ceramint.2016.01.186,
<http://www.sciencedirect.com/science/article/pii/S0272884216002327>
152. Wan Fahmin Faiz Wan Ali, Mohamadariiff Othman, Norazharuddin Shah Abdullah, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, The investigation of the phenomenological YIG phase formation within 1000 °C to 1250 °C: A Kinetic Approach, Journal of the American Ceramic Society, 99 [1] 315–323 (2016), DOI:10.1111/jace.13865
<http://onlinelibrary.wiley.com/doi/10.1111/jace.13865/full>
 153. Mohsen Ahmadipour, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Fabrication of resistance type humidity sensor based on CaCu₃Ti₄O₁₂ thick film, *Volume 94*, December 2016, Pages 902–908
<http://dx.doi.org/10.1016/j.measurement.2016.09.030>,
<http://www.sciencedirect.com/science/article/pii/S0263224116305322>
 154. Nik Akmar Rejab, Ahmad Zahirani Ahmad Azhar, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Role of MgO Nanoparticles on zirconia-toughened alumina-5 wt.% CeO₂ Ceramics Mechanical Properties, Materials Science and Technology (2016), DOI 10.1080/02670836.2015.1118792,
<http://www.maneyonline.com/doi/pdfplus/10.1080/02670836.2015.1118792>
 155. Seyi Stephen Olokede, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Dielectric loaded quasi-lumped element resonator antenna circuit model for U-NII/ISM band wireless applications, Annals of Telecommunications, (2016). doi:10.1007/s12243-016-0526-7, First Online: 06 June 2016,
<http://link.springer.com/article/10.1007/s12243-016-0526-7>
 156. Bahanurddin Nor Fatin Khairah, **Zainal Arifin Ahmad**, Mohamed Julie Juliewatty, Effect of Different Compaction Pressure and Different Sintering Route on K_{0.5}Na_{0.5}NbO₃ Physical and Dielectric Properties, Ceramics-Silikáty 60 (3), 220-225 (2016), doi: 10.13168/cs.2016.0033, 2016.
http://www.ceramics-silikaty.cz/index.php?page=cs_detail_doi&id=363
 157. Zhwan Dilshad Ibrahim Sktani, Mani Maran Ratnam, **Zainal Arifin Ahmad** Influence of Combined CaO and CaCO₃ Additions on the Microstructure and Properties of ZTA, Journal of The Australian Ceramic Society Volume 52[1], 2016, 167 – 176,
<http://www.austceram.com/JAC-2016-1/Article-PDFs/25-JACS-52-1-Zainal.pdf>
 158. Ali Arab, Roslan Ahmad, **Zainal Arifin Ahmad**, Effect of SrCO₃ additive on the dynamic compressive strength of ZTA, International Journal of Minerals, Metallurgy and Materials, *Volume 23, Number 4, April 2016, Page 1 – 9*, DOI: 10.1007/s12613-016-0000-0,
https://www.infona.pl/resource/bwmeta1.element.springer-doi-10_1007-S12613-016-1259-3
 159. Rosyaini Afindi Zaman, Wan Fahmin Faiz Wan Ali, Mohamad Johari Abu, Julie Juliewatty Mohamed, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Role of Mixing Mediums in Synthesizing Single Phase CaCu₃Ti₄O₁₂ (CCTO), Journal of Ceramic Processing Research. Vol. 17, No. 6, pp. 626–631 (2016),

- http://jcpr.kbs-lab.co.kr/file/JCPR_vol.17_2016/JCPR17-6/20.2015-220_626-631.pdf
160. Mohsen Ahmadipour, Mohamad Johari Abu, Mohd Fariz Ab Rahman, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Assessment of crystallite size and strain of CaCu₃Ti₄O₁₂ prepared via conventional solid-state reaction, Micro & Nano Letters, 2016, pages 1-4, doi:10.1049/mnl.2015.0562, <http://digital-library.theiet.org/content/journals/10.1049/mnl.2015.0562>
 161. Ahmed O. Alhareb, Hazizan Md. Akil, **Zainal Arafin Ahmad**, PMMA denture base composites reinforced by nitrile rubber and ceramic fillers, Polymers & Polymer Composites, Vol. 24, No. 1, 71-79, 2016, <http://search.proquest.com/docview/1762706875?pq-origsite=gscholar>
 162. Hanisah Manshor, Ahmad Zahirani Ahmad Azhar, Rashita Abd Rashid, Shazreen Sulaiman, Ezzat Chan Abdullah, **Zainal Arifin Ahmad**, Effects of Cr₂O₃ addition on the phase, mechanical properties, and microstructure of zirconia-toughened alumina added with TiO₂ (ZTA–TiO₂) ceramic composite, Int. Journal of Refractory Metals and Hard Materials 61 (2016) 40–45, doi:10.1016/j.ijrmhm.2016.08.005, <http://www.sciencedirect.com/science/article/pii/S0263436816301652>
 163. Haliza Jaya, Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, Nik Noriman Zulkepli, Effect of Particle Size on Mechanical Properties of Sawdust High Density Polyethylene Composites under Various Strain Rates, BioResources 2016, 11(3), 6489-6504, https://www.ncsu.edu/bioresources/BioRes_11/BioRes_11_3_6489_Jaya_OA_AZ_Effect_Particle_Size_Mecha_Prop_Sawdust_HDPE_Comp_9342.pdf
 164. Babatunde Abiodun Salami, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuddin, Impact of Added Water and Superplasticizer on Early Compressive Strength of Selected Mixtures of Palm Oil Fuel Ash-Based Engineered Geopolymer Composites, Construction and Building Materials, Volume 109, 15 April 2016, Pages 198-206, doi:10.1016/j.conbuildmat.2016.01.033, <http://www.sciencedirect.com/science/article/pii/S0950061816300332>
 165. Lee Woon Kiow, **Zainal Arifin Ahmad**, Mani Maran Ratnam, Detection of Fracture in Ceramic Cutting Tools from Workpiece Profile Signature Using Image Processing and Fast Fourier Transform, Precision Engineering, [Volume 44](#), April 2016, Pages 131–142, doi:10.1016/j.precisioneng.2015.11.001, Available online 11 May 2016 <http://www.sciencedirect.com/science/article/pii/S0141635915002147>
 166. Lee Woon Kiow, Zainal Arifin Ahmad, Mani Maran Ratnam, In-process detection of chipping in ceramic cutting tools during turning of difficult-to-cut material using vision-based approach, International Journal of Advanced Manufacturing Technology, (2016) 85:1275-1290, DOI

10.1007/s00170-015-8038-6,
http://link.springer.com/article/10.1007/s00170-015-8038-6?wt_mc=internal.event.1.SEM.ArticleAuthorOnlineFirst

167. Haliza Jaya, Mohd Firdaus Omar, Hazizan Md Akil2, **Zainal Arifin Ahmad**, Nik Noriman Zulkepli, Mohd Mustafa Al Bakri Abdullah, Ioan Gabriel Sandu, Petrica Vizureanu, Effect of Surface Modification on Sawdust Reinforced High Density Polyethylene Composites Under a Wide Range of Strain Rates, *Materiale Plastice*, 53, No.1, 84-89, 2016, <http://www.revmaterialeplastice.ro/pdf/HALIZA%20JAYA%201%2016.pdf>
168. Kausar Harun, Norsakinah Mansor, Muhamad Kamil Yaakob, Mohamad Fariz Mohamad Taib, Zainal Arifin Ahmad, Ahmad Azmin Mohamad, On the verification of sol–gel-derived ZnO nanoparticle properties using first-principles calculation, *Journal of Sol-Gel Science and Technology*, October 2016, Volume 80, [Issue 1](#), pp 56–67, 10.1007/s10971-016-4086-0, http://link.springer.com/article/10.1007/s10971-016-4086-0?wt_mc=Internal.Event.1.SEM.ArticleAuthorOnlineFirst
169. Seyi S. Olokede, Ihsan A. Zubir, Mohd F. Ain, **Zainal A. Ahmad**, Bandpass Filter Based On Novel-Coupled Halfwavelength Microstrip Ring Resonators, *Microwave And Optical Technology Letters* / Vol. 58, No. 4, April 2016, 911-918, DOI 10.1002/mop.29693, <https://authorservices.wiley.com/bauthor/onlineLibraryTPS.asp?DOI=10.1002/mop.29693&ArticleID=4814465>
170. Ahmad Kamal Ismail, Abdul Rashid Jamaludin, Mohammed Zubair, **Zainal Arifin Ahmad**, Mohd Zulkifly Abdullah, Effect of Ceramic Coating in Combustion and Cogeneration Performance of Al₂O₃ Porous Medium, *Journal of the Energy Institute*, Volume 89, Issue 1, February 2016, Pages 81-93, [doi:10.1016/j.joei.2015.01.008](https://doi.org/10.1016/j.joei.2015.01.008), <http://www.sciencedirect.com/science/article/pii/S1743967114201954>
171. W K Lee, M M Ratnam and **Z A Ahmad**, Tool breakage detection from 2D workpiece profile using vision method, *IOP Conf. Series: Materials Science and Engineering* 114 (2016) 012132, [doi:10.1088/1757-899X/114/1/012132](https://doi.org/10.1088/1757-899X/114/1/012132), <http://iopscience.iop.org/article/10.1088/1757-899X/114/1/012132>
172. JJ Mohamed, MF Ab Rahman, MF Ain, **Zainal Arifin Ahmad**, Effect of Glass Addition on the Properties of CaCu₃Ti₄O₁₂ Ceramics, *Materials Science Forum* 840, 52-56, 2016, www.scientific.net/MSF.840.52
173. H Manshor, AW Ramli, A Azhar, A Zahirani, EC Abdullah, **Zainal Arifin Ahmad**. Effect of Cr₂O₃-TiO₂ Addition on the Physical Properties of Zirconia Toughened Alumina, *Materials Science Forum* 840, 34-38, www.scientific.net/MSF.840.34

174. MZ Noh, HU Jamo, **Zainal Arifin Ahmad**, The Hardness Properties of Porcelain with Substitution of Quartz by Rice Husk Ash at Different Soaking Time, Materials Science Forum 840, 39-43, 2016, www.scientific.net/MSF.840.39
175. J Banjuraizah, **Zainal Arifin Ahmad**, Crystallite Size Measurement of Doped $\text{CaCu}_2 \cdot 8\text{CoO} \cdot 2\text{Ti}_4\text{O}_{12}$ Ceramic Samples Using Various Method Materials Science Forum 840, 131-137, www.scientific.net/MSF.840.131
176. EK Kok, J Banjuraizah, SF Khor, **Zainal Arifin Ahmad** . Preparation and Characterization of Porous Cordierite for Catalyst Support Application. Materials Science Forum 840, 71-76, 2016, www.scientific.net/MSF.840.71
177. L Yi Xuan, J Banjuraizah, **Zainal Arifin Ahmad**. Characterization of Cordierite Glass with the Addition Colorant Ceramic Glaze for FIR Therapy, Materials Science Forum 840, 207-212, 2016, www.scientific.net/MSF.840.207
178. MN Azri Aziz, J Banjuraizah, SF Khor, **Zainal Arifin Ahmad**, Synthesis and Structural Characterization of $\text{LaO} \cdot 8\text{SrO} \cdot 2\text{MO}_3$ (M= Mn, Fe, Co and Cr) Solid Ionic Material for Catalyst Application. Materials Science Forum 840, 48-51, 2016 www.scientific.net/MSF.840.48
179. A Jamil, M Amerul, J Banjuraizah, SF Khor, **Zainal Arifin Ahmad**. Synthesis and Characterization of PZT Doped Lanthanum, Neodymium and Yttrium Using Sol Gel Method, Materials Science Forum 840, 66-70, 2016, www.scientific.net/MSF.840.66
180. H Jaya, MF Omar, H Md Akil, **Zainal Arifin Ahmad**, NN Zulkepli. Effect of Alkaline Treatment on Sawdust Reinforced High Density Polyethylene Composite under Wide Strain Rate. Materials Science Forum 840, 103-107, 2016, www.scientific.net/MSF.840.103
181. A Wahab, N Suhaili, MF Omar, H Md Akil, **Zainal Arifin Ahmad**, NN Zulkepli. Effect of Surface Modification on Rice Husk (RH)/Linear Low Density Polyethylene (LLDPE) Composites under Various Loading Rates. Materials Science Forum 840, 3-7, 2016, www.scientific.net/MSF.840.3
182. N Abdullah, J Banjuraizah, **Zainal Arifin Ahmad**. Synthesis and Characterization of Colorant Glass and Glass Ceramic from Non Stoichiometric Cordierite Composition with the Addition of Colorant Material at Different Temperature, Materials Science Forum 840, 44-47, 2016, www.scientific.net/MSF.840.44

183. NS Abdullah, KC Min, **Zainal Arifin Ahmad**, E Ab Rahim, S Kartini, Why a Comprehensive Physical Characterization Effort of Microdialysis Membranes is Imperative for Computational Mass Transfer Studies?, Materials Science Forum 840, 180-184, 2016, www.scientific.net/MSF.840.180
184. SR Kasim, M Noor, SN Fazliah, **Zainal Arifin Ahmad**, Effect of Stirring and Aging Time on the Formation of β -Tricalcium Phosphate (β -TCP) Powder, Materials Science Forum 840, 156-159, 2016, www.scientific.net/MSF.840.156
185. A Wahab, N Suhaili, MF Omar, H Md Akil, **Zainal Arifin Ahmad**, NN Zulkepli, Effect of Surface Modification on Rice Husk (RH)/Linear Low Density Polyethylene (LLDPE) Composites under Various Loading Rates, Materials Science Forum 840, 3-7, www.scientific.net/MSF.840.3
186. H Seli, J Bujang, **Zainal Arifin Ahmad**, Preliminary Identification of Silantek Clay as Potential Refractory, Materials Science Forum 840, 124-130, 2016, www.scientific.net/MSF.840.124
187. Kho Chun Min, **Zainal Arifin Ahmad**, Siti Kartini Enche Ab Rahim, Norazharuddin Shah Abdullah, Mass Transport Analysis in Linear Microdialysis Probes Utilizing Structural Characterization Technique, Procedia Chemistry 19, 153-161, doi:10.1016/j.proche.2016.03.017, <http://www.sciencedirect.com/science/article/pii/S1876619616000632>
188. Kausar Harun, Norsakinah Mansor, **Zainal Arifin Ahmad**, Ahmad Azmin Mohamad, Electronic Properties of ZnO Nanoparticles Synthesized by Sol-gel Method: A LDA+ U Calculation and Experimental Study, Procedia Chemistry 19, 125-132, doi:10.1016/j.proche.2016.03.125, <http://www.sciencedirect.com/science/article/pii/S1876619616001716>
189. Mohd Fariz Ab Rahman, Mohamad Johari Abu, Saniah Ab Karim, Rosyaini Afindi Zaman, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, and Julie Juliewatty Mohamed, Microwave dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ - Al_2O_3 composite, AIP Conference Proceedings 1756, 020007 (2016); doi: 10.1063/1.4958750, <http://dx.doi.org/10.1063/1.4958750>
190. A Mohd Ali, NS Abdullah, M Ratnam, **Zainal Arifin Ahmad**, The Cutting Speed Influences on Tool Wear of ZTA Ceramic Cutting Tools and Surface Roughness of Work Material Stainless Steel 316L during High Speed Machining, Materials Science Forum 840, 315-320, 2016, <http://www.scientific.net/MSF.840.315>
191. RA Zaman, MJ Abu, S Ab Karim, JJ Mohamed, MF Ain, **Zainal Arifin Ahmad**, Synthesize CCTO Using Different Mixing Media Materials Science Forum 840, 87-90, 2016, <http://www.scientific.net/MSF.840.87>

192. M Rashid M Rohaidzat, M Johari, M Azmi, **Zainal Arifin Ahmad** Sago Pith Waste Ash as a New Alternative Raw Materials from Agricultural Waste, Materials Science Forum 840,389-393, 2016, <http://www.scientific.net/MSF.840.389>
193. H Yahya, MR Othman, **Zainal Arifin Ahmad**, Study on the Potential of Kaolinitic Clay from Perak State, Malaysia for Aluminosilicate Ceramic Ball, Materials Science Forum 840, 112-117, 2016, <http://www.scientific.net/MSF.840.112>
194. NN Mohd Salim, JJ Mohamed, **Zainal Arifin Ahmad**, Effect of Sintering Temperatures on Sr-Doped NiO Ceramics, Materials Science Forum 840, 61-65,2016, www.scientific.net/MSF.840.61
195. Wan Fahmin Faiz Wan Ali, NS Abdullah, MF Ain, **Zainal Arifin Ahmad**, Phase Evolution of Yttrium Iron Garnet (YIG) Made By Solid State Sintering: Particle Size Effect, Materials Science Forum 840, 276-280, 2016, <http://www.scientific.net/MSF.840.276>
196. NA Rejab, ZDI Sktani, A Mohd Ali, **Zainal Arifin Ahmad**, Role of Ce₂Zr₃O₁₀ phase on the Microstructure and Fracture Toughness of ZTA Composites, Materials Science Forum 840, 57-60, www.scientific.net/MSF.840.57
197. AO Alhareb, H Md Akil, **Zainal Arifin Ahmad**, Modification of Rubber Particles and Ceramic Fillers on PMMA Denture Base Materials, Materials Science Forum 840, 191-196, www.scientific.net/MSF.840.191
198. AR Jamaludin, SR Kasim, MZ Abdullah, **Zainal Arifin Ahmad**, Improvement of Porous Porcelain through Glaze Coating, Materials Science Forum 840, 19-23, 2016, www.scientific.net/MSF.840.19
199. H Jaafar, **Zainal Arifin Ahmad**, MF Ain, Effect of Sintering Temperature on CuO Doped Barium Zinc Tantalate (BZT) Dielectric Properties, Materials Science Forum 840, 8-12, 2016, www.scientific.net/MSF.840.8
200. NS Shahabudin, **Zainal Arifin Ahmad**, NS Abdullah. On Using Factorial Fractional Design to Fabricate Porous Alumina Scaffolds for Bone Tissue Engineering (BTE), Materials Science Forum 840, 185-190, www.scientific.net/MSF.840.185
201. Afifah Mohd Ali, Norazharuddin Shah Abdullah, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Linear Shrinkage of the ZTA Ceramic Cutting Inserts, Procedia Chemistry 19, 879-883, doi:10.1016/j.proche.2016.03.129, <http://www.sciencedirect.com/science/article/pii/S1876619616001753>

202. NFK Bahanurddin, JJ Mohamed, **ZA Ahmad**, The Effect of using Different Bed Powder in PZT Synthesis, *Procedia Chemistry* 19, 855-860, doi:10.1016/j.proche.2016.03.113, <http://www.sciencedirect.com/science/article/pii/S1876619616001595?np=y>
203. Nor Suhaida Shahabudin, **Zainal Arifin Ahmad**, Norazharuddin Shah Abdullah, Alumina Foam (AF) Fabrication Optimization and SBF Immersion Studies for AF, Hydroxyapatite (HA) Coated AF (HACAF) and HA-bentonite Coated AF (HABCAF) Bone Tissue Scaffolds, *Procedia Chemistry* 19, 884-890, doi:10.1016/j.proche.2016.03.130, <http://www.sciencedirect.com/science/article/pii/S1876619616001765>
204. Mohamad Johari Abu, Mohd Fariz Ab Rahman, Rosyaini Afindi Zaman, Mohsen Ahmadipour, Julie Juliewatty Mohamed, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Microwave Dielectric Properties of $\text{Ca}_{1+x}\text{Cu}_3\text{Ti}_4\text{O}_{12}$ ($-0.04 \leq x \leq 0.04$) Ceramics, *Procedia Chemistry* 19, 929-934, doi:10.1016/j.proche.2016.03.137, <http://www.sciencedirect.com/science/article/pii/S1876619616001832>
205. Mohd Fariz Ab Rahman, Mohamad Johari Abu, Mohd Fadzil Ain, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Effect of Calcination Temperature on Dielectric Properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Ceramics, *Procedia Chemistry* 19, 910-915, doi:10.1016/j.proche.2016.03.134, <http://www.sciencedirect.com/science/article/pii/S1876619616001807>
206. Rosyaini Afindi Zaman, Mohamad Johari Abu, Julie Juliewatty Mohamed, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Investigation of the Mixing Medium Effect on the Development of the CCTO Microstructure at 1000 °C, *Procedia Chemistry* 19, 906-909, doi:10.1016/j.proche.2016.03.133, <http://www.sciencedirect.com/science/article/pii/S1876619616001790>
207. Hamdan Yahya, Mohd Roslee Othman, **Zainal Arifin Ahmad**, Effect of Mullite Formation on Properties of Aluminosilicate Ceramic Balls, *Procedia Chemistry* 19, 922-928, doi:10.1016/j.proche.2016.03.136, <http://www.sciencedirect.com/science/article/pii/S1876619616001820>
208. JJ Mohamed, SAS Salim, **ZA Ahmad**, Comparative Study on the Effect of Zr 4+ and Ca 2+ Doping on the Properties of NiO, *Procedia Chemistry* 19, 949-954, doi:10.1016/j.proche.2016.03.140, <http://www.sciencedirect.com/science/article/pii/S1876619616001868>
209. Nurul Nadia Mohd Salim, **Zainal Arifin Ahmad**, Julie Juliewatty Mohamed, Effect of the Different Sr Dopant Contents on NiO Ceramic, *Procedia Chemistry* 19, 133-138, doi:10.1016/j.proche.2016.03.126, <http://www.sciencedirect.com/science/article/pii/S1876619616001728>
210. AO Alhareb, HM Akil, **ZA Ahmad**, Influence of $\text{Al}_2\text{O}_3/\text{Y-TSZ}$ Mixture as Filler Loading on the Radiopacity of PMMA Denture Base Composites,

2015

211. Wan Fahmin Faiz Wan Ali, Mohamadariff Othman, Norazharuddin Shah Abdullah, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, From Optimization to Dielectric Resonator Antenna (DRA) Application of YIG: Synthesis Approach, *Journal of Alloys and Compounds*, *Volume 645*, 5 October 2015, Pages 541-552, 10.1016/j.jallcom.2015.05.092,
<http://www.sciencedirect.com/science/article/pii/S0925838815013857>
212. Ubaid Ullah, Wan Fahmin Faiz Wan Ali, Mohd Fadzil Ain, Nor Muzlifah Mahyuddin, **Zainal Arifin Ahmad**, Design of a Novel Dielectric Resonator Antenna using MgTiO₃-CoTiO₃ for Wideband Application, *Materials and Design* 85 (2015) 396–403, <http://dx.doi.org/10.1016/j.matdes.2015.07.026>,
<http://www.sciencedirect.com/science/article/pii/S0264127515301027>
213. Abdul Rashid Jamaludin, Shah Rizal Kasim, Ahmad Kamal Ismail, Mohd Zulkifly Abdullah, **Zainal Arifin Ahmad**, The effect of sago as binder in the fabrication of alumina foam through the polymeric sponge replication technique, *Journal of the European Ceramic Society*, *Volume 35*, Issue 6, June 2015, Pages 1905-1914, 10.1016/j.jeurceramsoc.2014.12.005, JECS9931,
<http://www.sciencedirect.com/science/article/pii/S0955221914006621>
214. Abdul Rashid Jamaludin, Shah Rizal Kasim, Ahmad Kamal Ismail, Mohd Zulkifly Abdullah, **Zainal Arifin Ahmad**, Fabrication of Porcelain Foam Substrates Coated with SiC, Ni, and Cr Using the Dip-Coating Technique, *Ceramics International*, *Volume 41*, Issue 2, Part B, March 2015, Pages 2940-2947, 10.1016/j.ceramint.2014.10.123,
<http://www.sciencedirect.com/science/article/pii/S0272884214016721>
215. Ali Arab, **Zainal Arifin Ahmad**, Roslan Ahmad, Effects of yttria stabilized zirconia (3Y-TZP) percentages on the ZTA dynamic mechanical properties, *International Journal of Refractory Metals and Hard Materials*, *Volume 50*, May 2015, Pages 157-162,
<http://www.sciencedirect.com/science/article/pii/S0263436815000062>
216. AO Alhareb, HM Akil, **ZA. Ahmad**, PMMA Denture Base Composites Enhancement by Various Combinations of Nitrile Butadiene Rubber/Treated Ceramic Fillers, *Journal of Thermoplastic Composite Materials*, DOI:10.1177/0892705715616856,
http://jtc.sagepub.com/content/early/2015/11/26/0892705715616856.full.pdf?ijkey=n_KWX83IGfBz38mi&keytype=finite
217. Wan Fahmin Faiz Wan Ali, Hasnul Hakimi Jaafar, Mohamadariff Othman, Norazharuddin Shah Abdullah, Mohd Fadzil Ain, **Zainal Arifin**

- Ahmad**, Enhancement of YIG Bandwidth Efficiency through Ce-Doping for Dielectric Resonator Antenna (DRA) Applications, *Journal of Materials Science: Materials in Electronics*, January 2015, Volume 26, Issue 1, pp 504-514, <http://link.springer.com/article/10.1007%2Fs10854-014-2428-7>
218. Mohd Fariz Ab Rahman, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**, Mohd Fadzil Ain, Julie Juliewatty Mohamed, The effect of different dopant site (Cu and Ca) by magnesium on $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ dielectric properties, *Journal of Materials Science: Materials in Electronics*, June 2015, Volume 26, Issue 6, pp 3947-3956, DOI 10.1007/s10854-015-2929-z, <http://link.springer.com/article/10.1007%2Fs10854-015-2929-z#page-1>
219. Nor Fatin Khairah Bahanurddin, Mohammad Hafizuddin Jumali, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Effects of compaction pressure on lead zirconate titanate piezoelectric and dielectric properties prepared via high planetary mill, *Journal of Ceramic Processing Research*. Vol. 16, No. 2, pp. 258~261 (2015), http://jcpr.kbs-lab.co.kr/file/JCPR_vol.16_2015/JCPR16-2/162014-072_258-261.pdf
220. M.J.A. Mijarsh, M.A. Megat Johari, **Zainal Arifin Ahmad**, Compressive strength of treated palm oil fuel ash based geopolymer mortar containing calcium hydroxide, aluminium hydroxide and silica fume as mineral additives, *Cement and Concrete Composites* Volume 60, July 2015, Pages 65-81, [doi:10.1016/j.cemconcomp.2015.02.007](https://doi.org/10.1016/j.cemconcomp.2015.02.007), <http://www.sciencedirect.com/science/article/pii/S0958946515000487>
221. M.J.A. Mijarsh, M.A. Megat Johari, **Zainal Arifin Ahmad**, Effect of delay time and Na_2SiO_3 concentrations on compressive strength development of geopolymer mortar synthesized from TPOFA, *Construction & Building Materials*, Volume 86, 1 July 2015, Pages 64–74, [doi:10.1016/j.conbuildmat.2015.03.078](https://doi.org/10.1016/j.conbuildmat.2015.03.078), <http://www.sciencedirect.com/science/article/pii/S0950061815003360>
222. Hanisah Manshor, Suriyana Md Aris, Ahmad Zahirani Ahmad Azhar, Ezzat Chan Abdullah, **Zainal Arifin Ahmad**, Effects of TiO_2 addition on the phase, mechanical properties, and microstructure of zirconia-toughened alumina ceramic composite, *Ceramics International*, Volume 41, Issue 3, Part A, April 2015, Pages 3961-3967, [doi:10.1016/j.ceramint.2014.11.080](https://doi.org/10.1016/j.ceramint.2014.11.080), <http://www.sciencedirect.com/science/article/pii/S0272884214018409>
223. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuddin, Evaluation of Slag Blended Alkaline Activated Palm Oil Fuel Ash Mortar Exposed to the Sulphuric Acid Environment, *Journal of Materials in Civil Engineering*, 04015058-1 - 04015058-9, <http://ascelibrary.org/doi/abs/10.1061/%28ASCE%29MT.1943-5533.0001315>
224. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuddin, Impact of silica modulus on the early strength of

alkaline activated ground slag-ultrafine palm oil fuel ash based concrete, Materials and Structures, March 2015, Volume 48, [Issue 3](#), pp 733-741, DOI 10.1617/s11527-014-0318-3, <http://link.springer.com/article/10.1617/s11527-014-0318-3#page-1>

225. Ubaid Ullah, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Nor Muzlifah Mahyuddin, Mohamadariiff Othman, Mohd Zaid Abdullah, Arjuna Marzuki and Julie Juliewatty Mohamed, Antenna in LTCC Technologies: A Review and the Current State of the Art, IEEE Antennas and Propagation Magazine, Vol. 57, No. 2, April 2015, 241 -260, <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7087380>
226. A.O. Alhareb, H.M. Akil, **Zainal Arifin Ahmad**, Mechanical Properties of PMMA Denture Base Reinforced by Nitrile Rubber Particles with Al₂O₃/YSZ Fillers. Procedia Manufacturing, Volume 2, 2015, Pages 301-306, [doi:10.1016/j.promfg.2015.07.053](https://doi.org/10.1016/j.promfg.2015.07.053)
227. A. Mohd Ali, A. Z. Ahmad Azhar, M. M. Ratnam, **Zainal Arifin Ahmad**, Wear Analysis of ZTA-MgO Ceramic Cutting Inserts on Stainless Steel 316L Machining, Advanced Materials Research, Vol. 1087, pp. 101-105, Feb. 2015, [10.4028/www.scientific.net/AMR.1087.101](https://doi.org/10.4028/www.scientific.net/AMR.1087.101)
228. M. J. Abu, J. J. Mohamed, M. F. Ain, **Zainal Arifin Ahmad**, "Effect of Cu-Excess on the Microstructure and Microwave Dielectric Properties of CaCu₃Ti₄O₁₂ Ceramics", Advanced Materials Research, Vol. 1087, pp. 50-54, Feb. 2015, [10.4028/www.scientific.net/AMR.1087.50](https://doi.org/10.4028/www.scientific.net/AMR.1087.50)
229. A. R. Jamaludin, N. S. Mohd Shaiful Lizan, S. R. Kasim, M. Z. Abdullah, **Zainal Arifin Ahmad**, "Effect of Sintering Temperature on Mullite Ceramics Fabricated from Treated Palm Oil Fuel Ash", Advanced Materials Research, Vol. 1087, pp. 202-206, Feb. 2015, [10.4028/www.scientific.net/AMR.1087.202](https://doi.org/10.4028/www.scientific.net/AMR.1087.202)
230. M. F. Ab Rahman, A. bin Arshad, **Zainal Arifin Ahmad**, J. J. Mohamed, "Effect of Sintering Temperature on the Dielectric Properties of Pb(Zr_{0.52}Ti_{0.48})O₃ Ceramics Synthesized via High Planetary Ball Mill", Advanced Materials Research, Vol. 1087, pp. 167-171, Feb. 2015, [10.4028/www.scientific.net/AMR.1087.167](https://doi.org/10.4028/www.scientific.net/AMR.1087.167)
231. W. F. F. Wan Ali, H. H. Ahmad, M. A. Othman, M. I. Zubir, M. F. Ain, N. S. Abdullah, **Zainal Arifin Ahmad**, "Structural Properties of Cerium Substituted Yttrium Iron Garnet", Advanced Materials Research, Vol. 1087, pp. 157-161, Feb. 2015, [10.4028/www.scientific.net/AMR.1087.157](https://doi.org/10.4028/www.scientific.net/AMR.1087.157)

232. N. F. K. Bahanurddin, M. A. S. Shu'aibon, M. H. Jumali, **Zainal Arifin Ahmad**, J. J. Mohamed, "Effect of Lanthanum and Strontium Doped on PZT Properties Prepared via High Planetary Mill for Piezofan Application", Advanced Materials Research, Vol. 1087, pp. 172-176, Feb. 2015, [10.4028/www.scientific.net/AMR.1087.172](http://www.scientific.net/AMR.1087.172)
233. AO Alhareb, HM Akil, **Zainal Arifin Ahmad**, Mechanical Properties of PMMA Denture Base Reinforced by Nitrile Rubber Particles with Al₂O₃/YSZ Fillers, Procedia Manufacturing 2, 301-306, 2015, <http://www.sciencedirect.com/science/article/pii/S2351978915000542>
234. Nor Fatin Khairah Bahanurddin, Muhammad Afif Sharhan Shu'aibon, Mohammad Hafizuddin Jumali, **Zainal Arifin Ahmad**, Julie Juliewatty Mohamed, Effect of Lanthanum and Strontium Doped on PZT Properties Prepared via High Planetary Mill for Piezofan Application, Advanced Materials Research Vol. 1087 (2015) pp 172-176, doi:10.4028/www.scientific.net/AMR.1087.172, <http://www.scientific.net/Paper/Preview/413326>
235. Nor Suhaida Shahabudin, **Zainal Arifin Ahmad**, Norazharuddin Shah Abdullah, A Bentonite Layer between Alumina Foam and its Hydroxyapatite Coat: An Improved Scaffold for Bone Tissue Engineering Applications, Advanced Materials Research Vol. 1087 (2015) pp 394-399, doi:10.4028/www.scientific.net/AMR.1087.394, <http://www.scientific.net/Paper/Preview/413466>
236. Mohd Fariz Ab Rahman, Asyraf bin Arshad, **Zainal Arifin Ahmad**, Julie Juliewatty Mohamed, Effect of Sintering Temperature on the Dielectric Properties of Pb(Zr_{0.52}Ti_{0.48})O₃ Ceramics Synthesized via High Planetary Ball Mill, Advanced Materials Research Vol. 1087 (2015) pp 167-171, doi:10.4028/www.scientific.net/AMR.1087.167, <http://www.scientific.net/Paper/Preview/415742>
237. Saidatulakmar Shamsuddin, Norhanida Awang Kasani, Wan Nurul Syaza Wan Nawai, Ramani Mayappan, **Zainal Arifin Ahmad**, The Effect of Hydroxyapatite Composition on β Titanium Nanocomposites, Advanced Materials Research Vol. 1087 (2015) pp 400-404, doi:10.4028/www.scientific.net/AMR.1087.400, <http://www.scientific.net/Paper/Preview/431514>
238. C.T. Ping, Sharifah Aishah Syed Salim, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Dielectric Properties of Li₂CO₃ Doped NiO Measured at High Frequency, Advanced Materials Research Vol. 1087 (2015) pp 246-250, doi:10.4028/www.scientific.net/AMR.1087.246, <http://www.scientific.net/Paper/Preview/431098>

239. N. S. Shahabudin, **Z. A. Ahmad**, N. S. Abdullah, "A Bentonite Layer between Alumina Foam and its Hydroxyapatite Coat: An Improved Scaffold for Bone Tissue Engineering Applications", *Advanced Materials Research*, Vol. 1087, pp. 394-399, 2015, [10.4028/www.scientific.net/AMR.1087.394](http://www.scientific.net/AMR.1087.394)

240. Tan Guan Kui, Mohd Fariz Ab Rahman, **Zainal Arifin Ahmad**, Julie Juliewatty Mohamed, The Effect of CuO on NiO Electroceramics, *Advanced Materials Research*, Vol. 1107, pp. 3-8, Jun. 2015, [10.4028/www.scientific.net/AMR.1107.3](http://www.scientific.net/AMR.1107.3)

241. C.T. Ping, S. A. S. Salim, J. J. Mohamed, **Zainal Arifin Ahmad**, "Dielectric Properties of Li₂CO₃ Doped Nio Measured at High Frequency", *Advanced Materials Research*, Vol. 1087, pp. 246-250, Feb. 2015, [10.4028/www.scientific.net/AMR.1087.246](http://www.scientific.net/AMR.1087.246)

242. Hassan Usman Jamo, M.Z. Noh, **Zainal Arifin Ahmad**, Effects of Mould Pressure and Substitution of Quartz by Palm Oil Fuel Ash on Compressive Strength of Porcelain, *Advanced Materials Research* Vol. 1087 (2015) pp 121-125, doi:10.4028/www.scientific.net/AMR.1087.121, <http://www.scientific.net/Paper/Preview/425602>

243. Chun Min Kho, Azizan Aziz, **Zainal Arifin Ahmad**, Siti Kartini Enche Ab Rahim, Norazharuddin Shah Abdullah, Initial Efforts in Modelling Mass Transport in Microdialysis Probes: Physical Characterization of the Microdialysis Probe Membrane, *Advanced Materials Research* Vol. 1087 (2015) pp 365-369, doi:10.4028/www.scientific.net/AMR.1087.365, <http://www.scientific.net/Paper/Preview/413463>

244. Mohd Firdaus Omar, Haliza Jaya, Hazizan Md Akil, **Zainal Arifin Ahmad**, N.Z. Noriman, Mechanical Properties of High Density Polyethylene (HDPE)/Sawdust Composites under Wide Range of Strain Rate, *Applied Mechanics and Materials Vols. 754-755 (2015) pp 83-88*, doi:10.4028/www.scientific.net/AMM.754-755.83

245. Hanisah Manshor, Suriyana Md Aris, Ahmad Zahirani Ahmad Azhar *, Ezzat Chan Abdullah, **Zainal Arifin Ahmad**, Effect of Titania (TiO₂) Addition to Zirconia Toughened Alumina (ZTA) Phases, Hardness and Microstructure, *Advanced Materials Research* Vol. 1087 (2015) pp 293-298, doi:10.4028/www.scientific.net/AMR.1087.293, <http://www.scientific.net/Paper/Preview/419248>

246. Mohd Firdaus Omar, Nur Suhaili Abdul Wahab, Hazizan Md Akil, **Zainal Arifin Ahmad**, N.Z. Noriman, Measurement on Strain Rate Sensitivity Properties of Rice Husk (Rh)/Linear Low Density Polyethylene (Lldpe) Composites under Various Loading Rates, *Applied Mechanics and Materials*

Vols. 754-755 (2015) pp 77-82, [doi:10.4028/www.scientific.net/AMM.754-755.77](https://doi.org/10.4028/www.scientific.net/AMM.754-755.77)

247. Mohd Firdaus Omar, Haliza Jaya, Hazizan Md Akil, **Zainal Arifin Ahmad**, Mohd Fadli Ahmad Rasyid, N.Z. Noriman, Effect of Organic Modification on Dynamic Compression Properties of Polypropylene/Muscovite Layered Silicate Composites, Materials Science Forum, 803, 282-287, [doi:10.4028/www.scientific.net/MSF.803.282](https://doi.org/10.4028/www.scientific.net/MSF.803.282)
248. Mohd Firdaus Omar, Abd Wahab, Nur Suhaili, Hazizan Md Akil, **Zainal Arifin Ahmad**, Mohd Fadli Ahmad Rasyid, N.Z. Noriman, Effect of Surface Modification on Strain Rate Sensitivity of Polypropylene/Muscovite Layered Silicate Composites, Materials Science Forum, 803, 343-347, [doi:10.4028/www.scientific.net/MSF.803.343](https://doi.org/10.4028/www.scientific.net/MSF.803.343)
249. Fathie Kundie, **Zainal Arifin Ahmad**, Effect of Environmental Exposure on Two Types of Opaque Dental Porcelain, Procedia Manufacturing , Volume 2 (2015) 61 – 65, [doi:10.1016/j.promfg.2015.07.011](https://doi.org/10.1016/j.promfg.2015.07.011)
250. Otman M.M. Elbasir, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Influence of Initial Silica Modulus of Na₂SiO₃ on the Compressive Strength of Alkali Activated Ultrafine Palm Oil Fuel Ash Based Mortar", Applied Mechanics and Materials, Vol. 802, pp. 202-207, Oct. 2015, [10.4028/www.scientific.net/AMM.802.202](https://doi.org/10.4028/www.scientific.net/AMM.802.202)
251. H. U. Jamo, M.Z. Noh, **Z. A. Ahmad**, "Effect of Mould Pressure and Substitution of Quartz by Rice Husk Ash on the Bulk Density and Compressive Strength of Porcelain Body", Materials Science Forum, Vol. 819, pp. 134-139, Jun. 2015, [10.4028/www.scientific.net/MSF.819.134](https://doi.org/10.4028/www.scientific.net/MSF.819.134)
252. W.H. Chan, M.N. Mazlee, **Z. A. Ahmad** , S. B. Jamaludin, M.A.M. Ishak, "The Effects of Fly Ash Addition on the Properties of Porous Clay-Fly Ash Composites", Materials Science Forum, Vol. 819, pp. 123-128, Jun. 2015, [10.4028/www.scientific.net/MSF.819.123](https://doi.org/10.4028/www.scientific.net/MSF.819.123)
253. M. F. Omar, H. Jaya, H. Md Akil, **Z. A. Ahmad**, N.Z. Noriman, "Mechanical Properties of High Density Polyethylene (HDPE)/Sawdust Composites under Wide Range of Strain Rate", Applied Mechanics and Materials, Vols. 754-755, pp. 83-88, Apr. 2015, [10.4028/www.scientific.net/AMM.754-755.83](https://doi.org/10.4028/www.scientific.net/AMM.754-755.83)
254. M. F. Omar, N. S. Abdul Wahab, H. Md Akil, **Z. A. Ahmad**, N.Z. Noriman, "Measurement on Strain Rate Sensitivity Properties of Rice Husk (Rh)/Linear Low Density Polyethylene (Lldpe) Composites under Various Loading Rates",

Applied Mechanics and Materials, Vols. 754-755, pp. 77-82, Apr. 2015, 10.4028/www.scientific.net/AMM.754-755.77

255. H. U. Jamo, M.Z. Noh, **Z. A. Ahmad**, "Effects of Mould Pressure and Substitution of Quartz by Palm Oil Fuel Ash on Compressive Strength of Porcelain", Advanced Materials Research, Vol. 1087, pp. 121-125, Feb. 2015, 10.4028/www.scientific.net/AMR.1087.121
256. S. Shamsuddin, N. Awang Kasani, W. N. S. Wan Nawai, R. Mayappan, **Z. A. Ahmad**, "The Effect of Hydroxyapatite Composition on β Titanium Nanocomposites", Advanced Materials Research, Vol. 1087, pp. 400-404, Feb. 2015, 10.4028/www.scientific.net/AMR.1087.400
257. C. M. Kho, A. Aziz, **Z. A. Ahmad**, S. K. Enche Ab Rahim, N. S. Abdullah, "Initial Efforts in Modelling Mass Transport in Microdialysis Probes: Physical Characterization of the Microdialysis Probe Membrane", Advanced Materials Research, Vol. 1087, pp. 365-369, Feb. 2015, 10.4028/www.scientific.net/AMR.1087.365
258. H. Manshor, S. Md Aris, A. Z. Ahmad Azhar, E. C. Abdullah, **Z. A. Ahmad**, "Effect of Titania (TiO₂) Addition to Zirconia Toughened Alumina (ZTA) Phases, Hardness and Microstructure", Advanced Materials Research, Vol. 1087, pp. 293-298, Feb. 2015, 10.4028/www.scientific.net/AMR.1087.293

2014

259. Mohamad Johari Abu, Julie Juliewatty Mohamed, and **Zainal Arifin Ahmad**, Synthesis of high purity titanium silicon carbide from elemental powders using arc melting method, International Journal of Refractory Metals and Hard Materials, Volume 47, November 2014, Pages 86 -92, 10.1016/j.ijrmhm.2014.06.022, <http://www.sciencedirect.com/science/article/pii/S0263436814001358>
260. Saad Omar Alsharif, Hazizan Bin Md Akil, Nasser Abbas Abd El-Aziz, **Zainal Arifin Ahmad**, Effect of alumina particles loading on the mechanical properties of light- cured dental resin composites, Materials and Design, [Volume 54](http://dx.doi.org/10.1016/j.matdes.2013.07.069), February 2014, Pages 430– 435, <http://dx.doi.org/10.1016/j.matdes.2013.07.069>
261. Bun Kim Ngun, Hasmaliza Mohamad, Ken-ichi Katsumata, Kiyoshi Okada, **Zainal Arifin Ahmad**, Using design of mixture experiments to optimize triaxial ceramic tile compositions incorporating Cambodian clays, Applied Clay Science 87 (2014) 97–107, <http://dx.doi.org/10.1016/j.clay.2013.11.037>
262. Nik Akmar Rejab, Ahmad Zahirani Ahmad Azhar, Khoo Seng Kian, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Effects of MgO addition on the phase, mechanical properties, and microstructure of zirconia toughened alumina

- added with CeO₂ (ZTA-CeO₂) ceramic composite, *Materials Science & Engineering A*, 595 (2014) 18–24, <http://dx.doi.org/10.1016/j.msea.2013.11.091>
263. Zhwan Dilshad Ibrahim Sktani, Ahmad Zahirani Ahmad Azhar, Mani Maran Ratnam, and **Zainal Arifin Ahmad**, The Influence of In-situ Formation of Hibonite on the Properties of Zirconia Toughened Alumina (ZTA) Composites, *Ceramics International* 40 (2014), pp. 6211-6217, <http://dx.doi.org/10.1016/j.ceramint.2013.11.076>
264. Abdul Rashid Jamaludin, Shah Rizal Kasim, Mohd Zulkifly Abdullah, **Zainal Arifin Ahmad**, Sago Starch as Binder and Pore-Forming Agent for the Fabrication of Porcelain Foam, *Ceramics International* 40 (2014) 4777–4784, <http://dx.doi.org/10.1016/j.ceramint.2013.09.023>
265. Wan Fahmin Faiz Wan Ali, Mohamadariff Othman, Norazharuddin Shah Abdullah, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, The behavior of high frequency tunable dielectric resonator antenna (DRA) with the addition of excess Fe₂O₃ in Y₂Fe₅O₁₂ (YIG) formulation, *Journal of Materials Science: Materials in Electronics*, Vol. 25, Issue 1, pp. 560-572, <http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s10854-013-1624-1>
266. Sivabalan Sasthiryar, H. P. S. Abdul Khalil, **Z. A. Ahmad**, Md Nazrul Islam, Rudi Dungani, H. Mohammad Fizree, Carbon Nanofiller-enhanced Ceramic Composites: Thermal and Electrical Studies, *BioResources* 9(2), 3143-3151, http://www.ncsu.edu/bioresources/BioRes_09/BioRes_09_2_3143_Sasthiryar_KAIDF_Carbon_Nanofiller_Enhanced_Ceramic_Comp_5051.pdf
267. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuddin, *Shrinkage and Strength of Alkaline Activated Ground Steel Slag/Ultrafine Palm Fuel Ash Pastes and Mortars*, *Materials & Design*, Volume 63, November 2014, Pages 710-718, DOI: 10.1016/j.matdes.2014.06.062, <http://www.sciencedirect.com/science/article/pii/S0261306914005172>
268. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuddin, Influence of curing methods and concentration of NaOH on strength of the synthesized alkaline activated ground slag-ultrafine palm oil fuel ash mortar/concrete, *Construction and Building Materials*, Volume 66, 15 September 2014, Pages 541-548, <http://dx.doi.org/10.1016/j.conbuildmat.2014.05.037>
269. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuddin, Strength and microstructure of alkali-activated binary blended binder containing palm oil fuel ash and ground blast-furnace

slag, *Construction and Building Materials*, Volume 52, 15 February 2014, Pages 504-510, <http://dx.doi.org/10.1016/j.conbuildmat.2013.11.012>

270. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammad Maslehuddin, Effects of addition of $\text{Al}(\text{OH})_3$ on the strength of alkaline activated ground blast furnace slag-ultrafine palm oil fuel ash (AAGU) based binder, *Construction and Building Materials*, Volume 50, 15 January 2014, Pages 361-367, <http://dx.doi.org/10.1016/j.conbuildmat.2013.09.054>
271. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammad Maslehuddin, Evolution of Alkaline Activated Ground Blast Furnace-Ultrafine Palm Oil Fuel Ash Based Concrete, *Materials and Design* 55 (2014) 387–393, <http://dx.doi.org/10.1016/j.matdes.2013.09.047>
272. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammad Maslehuddin, Effects of $\text{H}_2\text{O}/\text{Na}_2\text{O}$ molar ratio on the Strength of Alkaline Activated Ground Blast Furnace Slag-Ultrafine Palm Oil Fuel Ash Based Concrete, *Materials & Design*, Volume 56, April 2014, Pages 158-164, <http://dx.doi.org/10.1016/j.matdes.2013.09.078>
273. M.J.A. Mijarsh, M.A. Megat Johari, **Z.A. Ahmad**, Synthesis of geopolymer from large amounts of treated palm oil fuel ash: Application of the Taguchi method in investigating the main parameters affecting compressive strength, *Construction and Building Materials* 52 (2014) 473–481, <http://dx.doi.org/10.1016/j.conbuildmat.2013.11.039>
274. Tran BaoTrung, Hussain Zuhailawati, **Zainal Arifin Ahmad**, Keiichi N. Ishihara, Sintering characteristics and properties of WC-10AISI304 (stainless steel) hard metals with added graphite *Materials Science and Engineering: A*, Volume 605, 27 May 2014, Pages 210-214, <http://dx.doi.org/10.1016/j.msea.2014.03.053>
275. Sasthiryar, S., Abdul Khalil, H. P. S., Bhat, A. H., **Ahmad, Z. A.**, Islam, M. N., Zaidon, A., and Dungani, R., Nanobioceramic composites: A study of mechanical, morphological, and thermal properties, *BioResources* 9(1) (2014), 861-871, http://www.ncsu.edu/bioresources/BioRes_09/BioRes_09_1_861_Sivabalan_KBAID_Na_nobioceramic_Composites_4762.pdf
276. Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, Shahrom Mahmud, Static and Dynamic Compressive Properties of Polypropylene/Zinc Oxide nanocomposites, *Polymer Engineering & Science*, Volume 54, issue 4, page 949-969, April 2014, DOI 10.1002/pen.23633, <http://onlinelibrary.wiley.com/sci-hub.org/doi/10.1002/pen.23633/pdf>
277. Amera Alkaisi, Abd Rashid Ismail, Samarendra S. Mutum, **Zainal A. Ahmad**, Sam'an Masudi, Noor Hayati Abd Razak, Transplantation of stem cells from pulp of human exfoliated deciduous teeth enhance bone consolidation in non immunosuppressed (NIS) rabbit mandibular distraction

osteogenesis, Journal of Oral and Maxillofacial Surgery: [Volume 71, Issue 10](#), October 2013, Pages 1758.e1–1758.e13.
<http://dx.doi.org/10.1016/j.joms.2013.05.016>

278. Moruf Olalekan Yusuf, Megat Azmi Megat Johari, **Zainal Arifin Ahmad**, Mohammed Maslehuudin, Performance of Different Grades of Palm Oil Fuel Ash with Ground Slag as Base Materials in the Synthesis of Alkaline Activated Mortar, Journal of Advanced Concrete Technology Vol. 12, 378-387, October 2014, doi:10.3151/jact.12.378,
https://www.jstage.jst.go.jp/article/jact/12/10/12_378/article
- 279.
280. U. Ullah, M. F. Ain, M. Othman, I. Zubir, N. M. Mahyuddin, **Z. A. Ahmad**, M. Z. Abdullah, A novel multi-permittivity cylindrical dielectric resonator antenna for wideband applications, RADIOENGINEERING, VOL. 23, NO. 4, DECEMBER 2014, 1071-1076,
http://www.radioeng.cz/fulltexts/2014/14_04_1071_1076.pdf
281. M. F. Omar, H. Jaya, H. M. Akil, **Z. A. Ahmad**, M. F. A. Rasyid, N.Z. Noriman, "Effect of Organic Modification on Dynamic Compression Properties of Polypropylene/Muscovite Layered Silicate Composites", Materials Science Forum, Vol. 803, pp. 282-287, Aug. 2014,
[10.4028/www.scientific.net/MSF.803.282](http://www.scientific.net/MSF.803.282)
282. M.F. Omar, N. S. Abd Wahab, H. M. Akil, **Z. A. Ahmad**, M. F. A. Rasyid, N.Z. Noriman, "Effect of Surface Modification on Strain Rate Sensitivity of Polypropylene/Muscovite Layered Silicate Composites", Materials Science Forum, Vol. 803, pp. 343-347, Aug. 2014,
[10.4028/www.scientific.net/MSF.803.343](http://www.scientific.net/MSF.803.343)
283. H.U. Jamo, M.Z. Noh and **Z.A. Ahmad**, Influence of Temperature on the Substitution of Quartz by Rice Husk Ash (RHA) in Porcelain Composition, Applied Mechanics and Materials Vols. 465-466 (2014) pp 1297-1303,
[doi:10.4028/www.scientific.net/AMM.465-466.1297](http://www.scientific.net/AMM.465-466.1297)
284. Sharifah Aishah Syed Salim, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Dielectric Properties of ZrO₂ Doped on NiO at High Frequency, Advanced Materials Research Vol. 895 (2014) pp 216-220,
[doi:10.4028/www.scientific.net/AMR.895.216](http://www.scientific.net/AMR.895.216)

2013

285. Tulus Ikhsan Nasution, Irwana Nainggolan, Sabar Derita Hutagalung, Khairael Rafezi Ahmad, **Zainal Arifin Ahmad**, The sensing mechanism and detection of low concentration acetone using chitosan-based sensors, Sensors & Actuators: B. Chemical, Volume 177, February 2013, Pages 522-528,
<http://dx.doi.org/10.1016/j.snb.2012.11.063>

286. Wan Fahmin Faiz Wan Ali, Mohamadariff Othman, Mohd Fadzil Ain, Norazharuddin Shah Abdullah, **Zainal Arifin Ahmad**, Studies on the formation of Yttrium Iron Garnet (YIG) through Stoichiometry Modification Prepared by Conventional Solid-State Method, *Journal of the European Ceramic Society* 33 (2013) 1317–1324, <http://dx.doi.org/10.1016/j.jeurceramsoc.2012.12.016>

287. Nik Akmar Rejab, Ahmad Zahirani Ahmad Azhar, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Relationship between microstructure and fracture toughness of zirconia toughened alumina (ZTA) added with MgO and CeO₂, *International Journal of Refractory Metals and Hard Materials*, 41 (2013) 522–530, <http://dx.doi.org/10.1016/j.ijrmhm.2013.07.002>

288. Nik Akmar Rejab, Ahmad Zahirani Ahmad Azhar, Mani Maran Ratnam, **Zainal Arifin Ahmad**, The effects of CeO₂ addition on the physical, microstructural and mechanical properties of yttria stabilized zirconia toughened alumina (ZTA), *International Journal of Refractory Metals and Hard Materials* (2013), pp. 162-166, <http://dx.doi.org/10.1016/j.ijrmhm.2012.08.010>

289. Ahmad Kamal Ismail, Mohd Zulkifly Abdullah, Mohammed Zubair, **Zainal Arifin Ahmad**, Abdul Rashid Jamaludin, Khairil Faizi Mustafa, Mohammad Nazir Abdullah, Application of porous medium burner with micro cogeneration system, *Energy*, Volume 50, 1 February 2013, Pages 131-142, <http://dx.doi.org/10.1016/j.energy.2012.12.007>

290. Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, Particle Size - Dependent on the Static and Dynamic Compression Properties of Polypropylene/Silica Composites, *Materials & Design*, Volume 45, March 2013, Pages 539–547, <http://dx.doi.org/10.1016/j.matdes.2012.09.026>

291. Tran Bao Trung, Zuhailawati Hussain, **Zainal Arifin Ahmad**, Keiichi Ishihara, Grain growth, phase evolution and properties of NbC carbide-doped WC-10AlSi₃O₄ hardmetals produced by pseudo hot isostatic pressing, *Journal of Alloys and Compounds*, Volume 552, 5 March 2013, Pages 20–25, <http://dx.doi.org/10.1016/j.jallcom.2012.10.060>

292. Mohd F. Ain, Seyi S. Olokede, Yazeed M. Qasaymeh, Arjuna Marzuki, Julie J. Mohammed, Srimala Sreekantan, Sabar D. Hutagalung, **Zainal A. Ahmad**, Mohd Z. Abdulla, A novel 5.8 GHz quasi-lumped element resonator antenna, *AEU - International Journal of Electronics and Communications*, Volume 67, Issue 7, July 2013, Pages 557– 56, ISSN 1434-8411, <http://dx.doi.org/10.1016/j.aeue.2012.12.008>

293. Mohd Fadzil Ain, Ubaid Ullah, **Zainal Arifin Ahmad**, On design and analysis of broadband two -segment dielectric resonator array antenna for 5-6 GHz applications, *Turkish Journal of Electrical Engineering & Computer Sciences*, DOI: 10.3906/elk-1206-33, Available online 08 January 2013, <http://mistug.tubitak.gov.tr/bdyim/kabul.php?dergi=elk>

294. Mohd Fadzil Ain, Ubaid Ullah, **Zainal Arifin Ahmad**, Bi-Polarized Dual-Segment Rectangular Dielectric Resonator Antenna, IETE Journal of Research, 2013;59:739-744, <http://jr.ietejournals.org/text.asp?2013/59/6/739/126974>

295. Ain M.F., Othman, A., **Ahmad, Z.A.** 2013. Hybrid Dielectric Resonator Integrated Pyramidal Horn Antenna. Journal of Microwave and Optical Technology Letters, Vol.55, Issue 6, pg 1299-1303. June 2013. [DOI: 10.1002/mop.27586](https://doi.org/10.1002/mop.27586)

296. Abdul Rashid Jamaludin, Shah Rizal Kasim, **Zainal Arifin Ahmad**, Effect of CaCO₃ Addition on Physical Properties of ZnO-based Crystal Glaze, Advanced Materials Research Vol. 620 (2013) pp 12-16, 10.4028/www.scientific.net/AMR.620.12, <http://www.scientific.net/AMR.620.12>

297. Ahmad Zahirani Ahmad Azhar, Nik Akmar Rejab, Hasmaliza Mohamad, Mani Maran Ratnam, **Zainal Arifin Ahmad**, The Effects of Cr₂O₃ Addition on Fracture Toughness and Phases of ZTA Ceramic Composite, Advanced Materials Research Vol. 620 (2013) pp 35-39, 10.4028/www.scientific.net/AMR.620.35, <http://www.scientific.net/AMR.620.35>

298. Bun Kim Ngun, Hasmaliza Mohamad, Kiyoshi Okada, Phat Bone, **Zainal Arifin Ahmad**, Identification of Mixed- Layer Mineral of Cambodia Clays and Their Phase Changes Upon Firing, Advanced Materials Research Vol. 620 (2013) pp 72-76, 10.4028/www.scientific.net/AMR.620.72, <http://www.scientific.net/AMR.620.72>

299. Ramadhansyah Putra Jaya, Mohd Al Amin Muhamad Nor, **Zainal Arifin Ahmad**, Zakaria Mohd Amin, Properties of Mortar Containing Rice Husk Ash at Different Temperature and Exposed to Aggressive Environment, Advanced Materials Research Vol. 620 (2013) pp 87-93, 10.4028/www.scientific.net/AMR.620.87, <http://www.scientific.net/AMR.620.87>

300. Mohamad Johari Abu, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Heterogeneous Combustion of Ti/Si/C Powders with Estimated Ti₃SiC₂ Routes Morphologies, Advanced Materials Research Vol. 620 (2013) pp 203-207, 10.4028/www.scientific.net/AMR.620.203, <http://www.scientific.net/AMR.620.202>

301. Mohd Nazri Idris, **Zainal Arifin Ahmad**, Zakaria Mohd Amin, Mohd Azmier Ahmad, Characterization of Potential Used Rubber Seed Coat Waste for the Removal of Remazol Brilliant Blue R Reactive Dye, Advanced Materials Research Vol. 620 (2013) pp 224-229,

10.4028/www.scientific.net/AMR.620.224,
<http://www.scientific.net/AMR.620.224>

302. Muhammad Azwadi Sulaiman, Sabar D. Hutagalung, **Zainal Arifin Ahmad**, Mohd Fadzil Ain, Investigation of Grain Size Effect on the Impedance of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ From 100 Hz to 1 GHz of Frequency, Advanced Materials Research Vol. 620 (2013) pp 230-235, 10.4028/www.scientific.net/AMR.620.230,
<http://www.scientific.net/AMR.620.230>
303. Nik Akmar Rejab, Ahmad Zahirani Ahmad Azhar, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Structural and Microstructure Relationship with Fracture Toughness of CeO_2 Addition into Zirconia Toughened Alumina (ZTA) Ceramic Composites, Advanced Materials Research Vol. 620 (2013) pp 252-256, 10.4028/www.scientific.net/AMR.620.252,
<http://www.scientific.net/AMR.620.252>
304. Saad Omar Alsharif, Hazizan Md Akil, Nasser Abbas Abd El-Aziz, **Zainal Arifin Ahmad**, Influence of silica and zirconia particles as filler loading on the radiopacity of dental resin composites, Advanced Materials Research Vol. 620 (2013) pp 345-349, 10.4028/www.scientific.net/AMR.620.345,
<http://www.scientific.net/AMR.620.345>
305. Asam M.A. Abudalazez, Shah Rizal Kasim, Azlan Ariffin, **Zainal Arifin Ahmad**, Preparation and Characterization of Biphasic Calcium Phosphate Coatings on 316L Stainless Steel Fabricated by Electrophoretic Deposition, Advanced Materials Research Vol. 620 (2013) pp 373-377, 10.4028/www.scientific.net/AMR.620.373,
<http://www.scientific.net/AMR.620.373>
306. Sharmiwati Mohammed Sharif, **Zainal Arifin Ahmad**, Mohd Roslee Othman, Porous ceramic supports prepared from porcelain mixture, Advanced Materials Research Vol. 620 (2013) pp 389-394, 10.4028/www.scientific.net/AMR.620.389,
<http://www.scientific.net/AMR.620.389>
307. Wan Fahmin Faiz Wan Ali, Mohamadariff Othman, Nik Akmal Rejab, Mohd Zaid Abdullah, Arjuna Marzuki, Sabar Derita Hutagalung, Julie Juliewatty Mohamed, Mohd Fadzil Ain, Norazharuddin Shah Abdullah, **Zainal Arifin Ahmad**, Synthesis and Characterization of $\text{Ba}_{0.3}\text{Sr}_{0.7}\text{ZrO}_3$ Ceramic Thick Films Prepared by Sol-Gel Technique, Advanced Materials Research Vol. 620 (2013) pp 435-439, 10.4028/www.scientific.net/AMR.620.435,
<http://www.scientific.net/AMR.620.435>

308. Hazman Seli, Japri Bujang, **Zainal Arifin Ahmad**, Preliminary Evaluation of Mukah clay deposits, *Advanced Materials Research* Vol. 620 (2013) pp 458-463, 10.4028/www.scientific.net/AMR.620.458, <http://www.scientific.net/AMR.620.458>

309. S. M. Sharif, **Z. A. Ahmad**, M. R. Othman, Tubular Ceramic Foam Via Polymeric Sponge Method, *International Journal of Scientific & Technology Research*, Volume 2, Issue 10, October 2013, 282-284, <http://www.ijstr.org/final-print/oct2013/Tubular-Ceramic-Foam-Via-Polymeric-Sponge-Method.pdf>

310. Affan A. Baba, Mohd. A. Zakariya, Zuhairi Baharudin, Muhd Z. U. Rehman, Mohd F. Ain and **Zainal A. Ahmad**, Equivalent lumped-element circuit of aperture and mutually coupled cylindrical dielectric resonator antenna, *Progress In Electromagnetics Research C*, Vol. 45, 15-31, 2013, <http://www.jpier.org/PIERC/pierc45/02.13091101.pdf>

311. Saidatulakmar Shamsuddin, Shamsul Baharin Jamaludin, Zuhailawati Hussain, **Zainal Arifin Ahmad**, Compressive and wear resistance of alumina reinforced Fe-Cr matrix composites, *Advanced Materials Research* Vol. 620 (2013) pp 362-367, 10.4028/www.scientific.net/AMR.620.362, <http://www.scientific.net/AMR.620.362>

312. A. A. Baba, M. A. B. Zakariya, Z. Baharudin, M. H. M. Khir, M. Z. u. Rehman, **Z. A. Ahmad**, and Y. M. A. Qasaymeh, "Aperture and mutual coupled cylindrical dielectric resonator antenna array," *Progress In Electromagnetics Research C*, Vol. 37, 223-233, 2013. <http://www.jpier.org/pierc/pier.php?paper=13011103>

313. Julie J. Mohamed, Sabar D. Hutagalung, **Zainal A. Ahmad**, Influence of sintering parameters on melting CuO phase in $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$, *Journal of King Saud University - Engineering Sciences*, Volume 25, Issue 1, January 2013, Pages 35-39, <http://dx.doi.org/10.1016/j.jksues.2011.10.001>

314. Saidatulakmar Shamsuddin, Shamsul Baharin Jamaludin, Zuhailawati Hussain, **Zainal Arifin Ahmad**, Fabrication and Characterisation of Powder Metallurgy Fe-Cr Matrix Composites Reinforced with Al_2O_3 , *Advanced Materials Research* Vol. 686 (2013) pp 157-16, doi:10.4028/www.scientific.net/AMR.686.157, <http://www.scientific.net/AMR.686.157>

315. M Salleh, MA Anuar, MH Hazizi, M Al Bakri, A Mohd, NZ Noriman, R Mayapan, **ZA Ahmad**, Research Advances of Composite Solder Material Fabricated via Powder Metallurgy Route, *Advanced Materials Research* 626 (2013), 791-796, 10.4028/www.scientific.net/AMR.626.791, <http://www.scientific.net/AMR.626.791>

316. Mohd Arif Anuar Mohd Salleh, N.S. Ibrahim, N. Saud, A. M. Mustafa Al Bakri, N.Z. Noriman, Ramani Mayapan, Z.A. **Ahmad**, Research Development of Solder Materials and its Intermetallic Compound (IMC) Study, Advanced Materials Research 626 (2013), 797-801, 10.4028/www.scientific.net/AMR.626.797, <http://www.scientific.net/AMR.626.797>
317. Noor Asikin Ab Ghani, Iziana Yahya, Mohd Arif Anuar Mohd Salleh, Saidatulakmar Shamsuddin, **Zainal Arifin Ahmad**, Ramani Mayapan, Microstructure Evolution of Sn-3.5Ag-1.0Cu-0.5Ni/Cu System Lead Free Solder Under Long Term Thermal Aging, Advanced Materials Research Vol. 620 (2013) pp 263-267, 10.4028/www.scientific.net/AMR.620.263, <http://www.scientific.net/AMR.620.263>
318. Norfadhilah Ibrahim, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, Phase Formation of α -Cordierite Using Different Sintering Profile, Advanced Materials Research Vol. 620 (2013) pp 295-298, 10.4028/www.scientific.net/AMR.620.295, <http://www.scientific.net/AMR.620.295>
319. Norlailatullaili Mazuki, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Formation of Titanium Silicon Carbide (Ti_3SiC_2) via Modified Self Propagating High Temperature Synthesis (SHS) System Through Arc Melting, Advanced Materials Research Vol. 620 (2013) pp 304-308, 10.4028/www.scientific.net/AMR.620.304, <http://www.scientific.net/AMR.620.304>
320. Sharifah Aishah Syed Salim, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Effect of Nickel on Titanium Carbide Synthesized Via Tungsten Inert Gas (TIG) Method, Advanced Materials Research Vol. 620 (2013) pp 384-388, 10.4028/www.scientific.net/AMR.620.384, <http://www.scientific.net/AMR.620.384>
321. Tran Bao Trung, Zuhailawati Hussain, **Zainal Arifin Ahmad**, Keiichi Ishihara, Role of NbC grain growth inhibitor on microstructure of WC-stainless steel hard metals, Advanced Materials Research Vol. 620 (2013) pp 424-428, 10.4028/www.scientific.net/AMR.620.424, <http://www.scientific.net/AMR.620.424>

2012

322. Ahmad Zahirani Ahmad Azhar, Lee Chun Choong, Hasmaliza Mohamad, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Effects of Cr₂O₃ addition on the mechanical properties, microstructure and wear performance

- of zirconia-toughened-alumina (ZTA) cutting inserts, *Journal of Alloys and Compounds*, 513 (2012) 91– 96 ,
<http://dx.doi.org/10.1016/j.jallcom.2011.09.092>
323. Chea Chandara, Khairun Azizi Mohd Azizli, **Zainal Arifin Ahmad**, Syed Fuad Saiyid Hashim, Etsuo Sakai , Heat of hydration of Blended Cement Containing Treated Ground Palm Oil Fuel Ash, *Construction and Building Materials*, 27 (2012) 78–81,
<http://dx.doi.org/10.1016/j.conbuildmat.2011.08.011>
324. Wan Fahmin Faiz, Nik Akmar Rejab, Mohamadariff Othman, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, An investigation of dielectric resonator antenna produced from silicon (100) enhanced by strontium doped-barium zirconate films, *Journal of Sol-Gel Science and Technology*, 61(2012)411-420, DOI 10.1007/s10971-011-2641-2,
<http://link.springer.com/article/10.1007%2Fs10971-011-2641-2>
325. Sharmiwati Mohammed Sharif, **Zainal Arifin Ahmad**, Mohd Roslee Othman, Preparation and characterization of tubular ceramic support for use in transesterification process, *Sci. Sinter.* 44 (2012) 187-195, DOI:10.2298/SOS1202187S, <http://www.doiserbia.nb.rs/img/doi/0350-820X/2012/0350-820X1202187S.pdf>
326. Bun Kim Ngun, Hasmaliza Mohamad, Shamsul Kamal Sulaiman, Meor Yusoff Meor Sulaiman, Toshihiro Isobe, Kiyoshi Okada and Zainal Arifin Ahmad, Changes in physical, chemical, and microstructures and strength relationships of some Cambodian clays, *Journal of Ceramic Processing Research*. Vol. 13, No. 4, pp 547–555 (2012), http://jcpr.kbs-lab.co.kr/file/JCPR_vol.13_2012/JCPR13-5/13_5547.pdf
327. M.A.A. Mohd Salleh, A.M. Mustafa Al Bakri, M.H.Zan@Hazizi, Flora Somidin, Noor Farhani Mohd Alui, **Zainal Arifin Ahmad**, Mechanical properties of Sn-0.7Cu/Si3N4 lead-free composite solder, *Materials Science & Engineering A*, Volume 556, 30 October 2012, Pages 633-637, DOI:http://dx.doi.org/10.1016/j.msea.2012.07.039,
<http://www.sciencedirect.com/science/article/pii/S0921509312010015>
328. Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, Effect of molecular structures on dynamic compression properties of polyethylene, *Materials Science & Engineering A*, Volume 538, 15 March 2012, Pages 125-134, <http://dx.doi.org/10.1016/j.msea.2011.12.111>
329. Sabar D Hutagalung, Nor H Sahrol, **Zainal A Ahmad**, Mohd F Ain, Mohamadariff Othman, Effect of MnO2 additive on the dielectric and electromagnetic interference shielding properties of sintered cement based ceramics, *Ceramics International*, 38 (2012) 671–678,
<http://dx.doi.org/10.1016/j.ceramint.2011.07.055>

330. Pao Ling Ng, Aliyah Jamaludin, Yatimah Alias, Wan Jeffrey Basirun, **Zainal Arifin Ahmad**, Ahmad Azmin Mohamad, Effect of KOH concentration in the Gel Polymer Electrolyte for Direct Borohydride Fuel Cell, Journal of Applied Polymer Science, 123(5)(2012) 2567–2666, <http://onlinelibrary.wiley.com/doi/10.1002/app.34666/pdf>
331. Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, The Effect of Loading Rates and Particle Geometry on Compressive Properties of Polypropylene/Zinc Oxide Nanocomposites: Experimental and Numerical Prediction, Polymer Composites, 33:99– 108, 2012, DOI 10.1002/pc.21253
332. M. F. Ain, Y. M. Qasaymeh, **Z. A. Ahmad**, M. A. Zakariya, M. A. Othman, and M. Z. Abdullah, Design and modeling of a high gain wideband circular polarized dielectric resonator antenna array, Microwave and Optical Technology Letters, vol 54, no. 6, June 2012, 1396-1399, DOI 10.1002/mop, <http://onlinelibrary.wiley.com/doi/10.1002/mop.26860/full>
333. Ain, M.F, Y.M Qasaymeh, M.A Zakariya, M.A Othman, S.S Olokede, M.Z Abdullah, and **Z.A Ahmad**. "Novel Modeling and Design of Circularly Polarized Dielectric Resonator Antenna Array." *Progress in Electromagnetics Research C*. 28 (2012): 165-179, <http://www.jpier.org/PIERC/pierc28/13.12021801.pdf>
334. Muhammad Azwadi Sulaiman, Sabar D. Hutagalung, **Zainal A. Ahmad**, Nanoscale Investigation of Nb-Doped CaCu₃Ti₄O₁₂ Grains, Advanced Materials Research, Vol. 364 (2012) pp 455-459, <https://www.scientific.net/AMR.364.455>
335. Firdaus Omar, Hazizan Md Akil¹, **Zainal Arifin Ahmad**, Effect of Particle Sizes on Rate Sensitivity and Dynamic Mechanical Properties of Polypropylene/Silica (PP/SiO₂) Nanocomposites, Advanced Materials Research, Vol. 364 (2012) pp 181-185, <https://www.scientific.net/AMR.364.181>
336. Hazman Seli, Mokhtar Awang, Ahmad Izani Md. Ismail, Endri Rachman, **Zainal Arifin Ahmad**, Evaluation of properties and FEM model of the friction welded mild steel-Al6061-alumina, Materials Research, 2012; 15(6): 1-15, <http://dx.doi.org/10.1590/S1516-14392012005000178>
337. Mohamad Johari Abu, Julie Juliewatty Mohamed, **Zainal Arifin Ahmad**, Effect of excess silicon on the formation of Ti₃SiC₂ using free Ti/Si/C powders synthesized via arc melting, International Scholarly Research Network (ISRN) Ceramics, Volume 2012, Article ID 341285, 10 pages, <http://dx.doi.org/10.5402/2012/341285>, <https://www.hindawi.com/journals/isrn/2012/341285/>

338. Asam M. A. Abudalazez, Shah Rizal Kasim, Azlan B. Ariffin, **Zainal Arifin Ahmad**, Effect of the Solid Concentration in the Suspension on Electrophoretic Deposition (EPD) Coating Parameters, International Journal of Engineering Research in Africa Vol. 8 (2012) pp 47-54, doi:10.4028/www.scientific.net/JERA.8.47
339. Mohd Nazri Idris, **Zainal Arifin Ahmad**, Zakaria Mohd Amin, Mohd Azmier Ahmad, Optimization Process for Producing Mesopores Activated Carbon Based On Hevea Brasiliensis Seed Coat Using Response Surface Methodology, Advanced Materials Research, Vol. 364 (2012) pp 382-387, 10.4028/www.scientific.net/AMR.364.382
340. N. Ibrahim, H. Mohamad, **Z.A. Ahmad**, J. Banjuraizah, Effect of CaO from Different Sources on the Nanostructured Cordierite, Advanced Materials Research, Vol. 364 (2012) pp 368-371, 10.4028/www.scientific.net/AMR.364.368
341. Ahmad Zahirani Ahmad Azhar, Hasmaliza Mohamad, Mani Maran Ratnam and **Zainal Arifin Ahmad**, Effect of MgO Nano Particle on Mechanical Property and Microstructure of ZTA Ceramic Composite, Advanced Materials Research, Vol. 364 (2012) pp 450-454, 10.4028/www.scientific.net/AMR.364.450

2011

342. Syahriza Ismail, **Zainal A. Ahmad**, Andrey Berenov, Zainovia Lockman, Effect of applied voltage and fluoride ion content on the formation of zirconia nanotube arrays by anodic oxidation of zirconium, Corrosion Science, 53(2011)1156-1164, <http://dx.doi.org/10.1016/j.corsci.2010.11.044>
343. Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, Measurement and prediction of compressive properties of polymers at high strain rate loading, Materials & Design, 32 (2011) 4207–4215, <http://dx.doi.org/10.1016/j.matdes.2011.04.037>
344. Jeremy C.H. Koh, **Zainal Arifin Ahmad**, Ahmad Azmin Mohamad, Self-Aligned TiO₂ Nanotube Arrays Produced By Air-cathode As Electrode, Journal of Alloys and Compounds, 509 (2011) 8707– 8715, doi:10.1016/j.jallcom.2011, <http://www.sciencedirect.com/science/article/pii/S0925838811013090>
345. Muhammad Azwadi Sulaiman, Sabar D. Hutagalung, Julie J. Mohamed, **Zainal A. Ahmad**, Mohd Fadzil Ain, Bakar Ismail, High frequency response to the impedance complex properties of Nb-doped CaCu₃Ti₄O₁₂ electroceramics, Journal of Alloys and Compounds, 509(2011)5701-5707, <http://dx.doi.org/10.1016/j.jallcom.2011.02.145>

346. M.F. Omar, H.M. Akil, **Z.A. Ahmad**, Static And Dynamic Compressive Properties of Mica/Polypropylene Composites, Materials Science & Engineering A, 28 (2011) 1567–1576, <http://dx.doi.org/10.1016/j.msea.2010.10.071>
347. Jeremy C.H. Koh, **Zainal Arifin Ahmad**, Ahmad Azmin Mohamad, BACTO Agar-based Gel Polymer Electrolyte, IONICS, DOI 10.1007/s11581-011-0631-6, <http://link.springer.com/article/10.1007/s11581-011-0631-6>
348. M.F. Omar, H.M. Akil, **Z.A. Ahmad**, Mechanical properties of nanosilica/polypropylene composites under dynamic compression loading, Polymer Composites, Volume 32, Issue 4, pages 565–575, April 2011, DOI 10.1002/pc.21079, <http://onlinelibrary.wiley.com/doi/10.1002/pc.21079/epdf>
349. Johar Banjuraizah, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, Effect of melting temperatures on the crystallization and densification of 2.8MgO.1.5Al₂O₃.5SiO₂ glass-ceramic synthesized from mainly talc and kaolin, Journal of Alloys and Compounds, 509(2011)1874-1879, <http://dx.doi.org/10.1016/j.jallcom.2010.10.077>
350. Johar Banjuraizah, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, Effect of impurities content from minerals on phase transformation, densification and crystallization of α -cordierite glass-ceramic, Journal of Alloys and Compounds, 509(2011)7645–7651, <http://dx.doi.org/10.1016/j.jallcom.2011.04.129>
351. Bun Kim Ngun, Hasmaliza Mohamad, Shamsul Kamal Sulaiman, Kiyoshi Okada, **Zainal Arifin Ahmad**, Some ceramic properties of clays from central Cambodia, Applied Clay Science, 53(2011) 33-41, <http://dx.doi.org/10.1016/j.clay.2011.04.017>
352. Johar Banjuraizah, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, Densification and Crystallization of Non-Stoichiometric Cordierite Glass with Excess MgO Synthesized From Kaolin and Talc, Journal of the American Ceramic Society, 94 [3] 687–694 (2011), <http://dx.doi.org/10.1016/j.jallcom.2010.01.002>
353. Ahmad Zahirani Ahmad Azhar, Hasmaliza Mohamad, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Effect of MgO particle size on the microstructure, mechanical properties and wear performance of ZTA-MgO ceramic cutting inserts, International Journal of Refractory Metals and Hard Materials, 29(2011)456-461, <http://dx.doi.org/10.1016/j.ijrmhm.2011.02.002>
354. Nik Akmar Rejab, Mohamadarif Othman, Wan Fahmin Faiz, Mohd Fadzil Ain, **Zainal Arifin Ahmad**, (Ba_{0.93}Nd_{0.07})TiO₃ thin films prepared by

- sol-gel method as a potential dielectric resonator antenna application, Journal of Sol-Gel Science Technology, 57(2011)172-177, DOI 10.1007/s10971-010-2338-y, <http://link.springer.com/content/pdf/10.1007%2Fs10971-010-2338-y.pdf>
355. Johar Banjuraizah, Hasmaliza Mohamad, Zainal Arifin Ahmad, Synthesis and characterization of $x\text{MgO}-1.5\text{Al}_2\text{O}_3-5\text{SiO}_2$ ($x = 2.6-3.0$) system using mainly talc and kaolin through the glass route, Materials Chemistry and Physics, 129 (2011) 910–918, <http://dx.doi.org/10.1016/j.matchemphys.2011.05.026>
356. Nik Akmar Rejab, Srimala Sreekantan, Khairunisak Abd Razak, **Zainal Arifin Ahmad**, Structural characteristics and dielectric properties of neodymium doped barium titanate, Journal of Materials Science: Materials Electronic, 22:167-173, 2011, <http://dx.doi.org/10.1007/s10854-010-0108-9>
357. Johar Banjuraizah, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, Effect of excess MgO mole ratio in stoichiometric cordierite ($2\text{MgO}.2\text{Al}_2\text{O}_3.5\text{SiO}_2$) composition on phase transformation and crystallization behavior of MAS phases, International Journal of Applied Ceramic, 8[3]637–645(2011), <http://onlinelibrary.wiley.com/doi/10.1111/j.1744-7402.2010.02486.x/pdf>
358. Ahmed Omran Alhared, **Zainal Arifin Ahmad**, Effect of $\text{Al}_2\text{O}_3/\text{ZrO}_2$ reinforcement on the Mechanical properties of PMMA denture base, Journal of Reinforced Plastics and Composites, 30(1)86-93, 2011, DOI: 10.1177/0731684410379511, <http://journals.sagepub.com/doi/pdf/10.1177/0731684410379511>
359. Alkaisi Amara, Asam M. A. Abudalazez, Abd Rashid Ismail, Noor Hayati Abd Razak, Sam'an Malik Masudi, Shah Rizal Kasim, **Zainal Arifin Ahmad**, Synthesis and characterization of porous biphasic calcium phosphate scaffold for different porogens for possible bone tissue engineering applications, Science of Sintering, 43(2011)183 -192, <http://scindeks-clanci.ceon.rs/data/pdf/0350-820X/2011/0350-820X1102183A.pdf>, doi:10.2298/SOS1102183A
360. Julie J. Mohamed, Sabar D. Hutagalung, Mohd. Fadzil Ain and **Zainal A. Ahmad**, Effect of excess TiO_2 in $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ on the microstructure and dielectric properties, Journal of Ceramic Processing Research, Vol. 12, No. 5, pp. 496-499 (2011), http://jcpr.kbs-lab.co.kr/file/JCPR_vol.12_2011/JCPR12-5/02.496-499.pdf
361. Chea Chandara, Khairun Azizi Mohd Azizli, **Zainal Arifin Ahmad**, Syed Fuad Saiyid Hashim, Etsuo Sakai, Analysis of Mineralogical Component of Palm Oil Fuel Ash with or without Unburned Carbon, Advanced Materials Research, 173(2011)7-11, <https://www.scientific.net/AMR.173.7>

362. Ahmed Omran Alhareb, **Zainal Arifin Ahmad**, Effect of Al₂O₃/ZrO₂ Hybrid on the Fracture Toughness and Flexural Properties of PMMA Denture Base, Advanced Materials Research,173(2011)18-23, <https://www.scientific.net/AMR.173.18>
363. Ahmad Zahirani Ahmad Azhar, Foo Tai Kong, Hasmaliza Mohamad, Mani Maran Ratnam, **Zainal Arifin Ahmad**, Effect of Particle Sizes of Magnesium Oxide on Zirconia Toughened Alumina Vickers Hardness, Advanced Materials Research, 173(2011)29-34, <https://www.scientific.net/AMR.173.29>
364. A.R. Jamaludin, S.R. Kasim, **Z.A. Ahmad**, Effects of Different Gloss Firing Temperature on the Crystallization of Zinc-Based Crystal Glaze, Advanced Materials Research,173(2011)44-48, <https://www.scientific.net/AMR.173.44>
365. H. Jaafar, **Z.A. Ahmad**, F. Ain, Effects of Calcination Temperature on the Phase Formation and Microstructure of Barium Zinc Tantalate, Advanced Materials Research,173(2011)61-66, <https://www.scientific.net/AMR.173.61>
366. B. Johar, H. Mohamad, **Z.A. Ahmad**, Rietveld Quantitative Phase Analysis of Non-Stoichiometric Cordierite Synthesised from mainly Talc and Kaolin: Effect of Sintering Temperature, Advanced Materials Research,173(2011)190-195, <https://www.scientific.net/AMR.173.190>
367. B. Johar, H. Mohamad, **Z.A. Ahmad**, Characterization and Phase Evolution of Cordierite Based Glass Synthesis From Pure Oxide and Minerals, Advanced Materials Research,173(2011)196-200, <https://www.scientific.net/AMR.173.196>
368. Saidatulakmar Shamsuddin, Shamsul Baharin Jamaludin, Zuhailawati Hussain, **Zainal Arifin Ahmad**, Dry Sliding Wear and Compressive Strength of Fe-Cr Matrix Composite with and without Al₂O₃ Reinforcement, IEEE, 447-451, 2011, [10.1109/ISBEIA.2011.6088878](https://doi.org/10.1109/ISBEIA.2011.6088878)
<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6088878>
369. Saidatulakmar Shamsuddin, Shamsul Baharin Jamaludin, Zuhailawati Hussain, **Zainal Arifin Ahmad**, Heating rate effects on properties of powder metallurgy Fe-Cr-Al₂O₃ composites, Advanced Materials Research, 173 (2011) pp 84-89, <https://www.scientific.net/AMR.173.84>
370. Hazizan Md Akil, Mohd Firdaus Omar, **Zainal Arifin Ahmad**, High-strain-rate behavior of polymer matrix nanocomposites, SPE (Society of Plastics Engineers) Plastics Research Online, 10.1002/spepro.003612, <http://www.4spepro.org/pdf/003612/003612.pdf>

371. Mohd Nazri Idris, **Zainal Arifin Ahmad**, Mohd Azmier Ahmad, Nazwin Ahmad, Shamsul Kamal Sulaiman, Optimization of process variables for malachite green dye removal using rubber seed coat based activated carbon, International Journal of Engineering & Technology, 11(3)(2011)38-43, <http://www.ijens.org/vol%2011%20i%2001/119001-0707%20ijet-ijens.pdf>
372. Mohd Nazri Idris, **Zainal Arifin Ahmad**, Mohd Azmier Ahmad, Adsorption equilibrium of malachite green dye onto rubber seed coat based activated carbon, International Journal of Basic & Applied Sciences, 11(2011)305-311, <http://www.ijens.org/vol%2011%20i%2003/115503-0404%20ijbas-ijens.pdf>
373. N. Shafiza Afzan Sharif, Sabar D. Hutagalung and **Zainal A. Ahmad**, La-Doped $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Ceramics Sintered in Argon Environment, Advanced Materials Research, 173(2011)167-172, <https://www.scientific.net/AMR.173.167>
374. Syahriza Ismail, Zainovia Lockman, **Zainal A. Ahmad**, Andrey Berenov, Formation and Mechanistic Study of Self-Ordering ZrO_2 Nanotubes by Anodic Oxidation, Advanced Materials Research, 173(2011)173-177, <https://www.scientific.net/AMR.173.173>
375. Mohd Arif Anuar Mohd Salleh, Muhammad Hafiz Zan@Hazizi, **Zainal Arifin Ahmad**, Kamarudin Hussin, Khairul Rafezi Ahmad, Wettability, Electrical and Mechanical Properties of 99.3Sn-0.7Cu/Si $_3$ N $_4$ Novel Lead-free Nanocomposite Solder, AMR, 277 (2011)106-111, <https://www.scientific.net/AMR.277.106>

2010

376. Johar Banjuraizah, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, [Thermal expansion coefficient and dielectric properties of non-stoichiometric cordierite compositions with excess MgO mole ratio synthesized from mainly kaolin and talc by the glass crystallization method](http://doi.org/10.1016/j.jallcom.2010.01.002), Journal of Alloys and Compounds, Volume 494, Issues 1-2, 2 April 2010, Pages 256-260, <http://doi.org/10.1016/j.jallcom.2010.01.002>, <http://www.sciencedirect.com/science/article/pii/S0925838810000137>
377. Chea Chandara, Etsuo Sakai, Khairun Azizi Mohd Azizli, **Zainal Arifin Ahmad**, Syed Fuad Saiyid Hashim, [The effect of unburned carbon in palm oil fuel ash on fluidity of cement pastes containing superplasticizer](http://doi.org/10.1016/j.conbuildmat.2010.02.036), Construction and Building Materials 24 (2010) 1590–1593, <http://doi.org/10.1016/j.conbuildmat.2010.02.036>, <http://www.sciencedirect.com/science/article/pii/S0950061810000796>
378. Hazman Seli, Ahmad Izani Md. Ismail, Endri Rachman, **Zainal Arifin Ahmad**, [Mechanical evaluation and thermal modelling of friction welding of mild steel and aluminium](http://www.sciencedirect.com/science/article/pii/S0950061810000796), Journal of Materials Processing Technology,

Volume 210, Issue 9, 19 June 2010, Pages 1209-1216,
<http://doi.org/10.1016/j.jmatprotec.2010.03.007>,
<http://www.sciencedirect.com/science/article/pii/S0924013610000804>

379. Ahmad Zahirani Ahmad Azhar, Hasmaliza Mohamad, Mani Maran Ratnam, **Zainal Arifin Ahmad**, [The effects of MgO addition on microstructure, mechanical properties and wear performance of zirconia-toughened alumina cutting inserts](#), *Journal of Alloys and Compounds*, Volume 497, Issues 1-2, 14 May 2010, Pages 316-320, <http://doi.org/10.1016/j.jallcom.2010.03.054>, <http://www.sciencedirect.com/science/article/pii/S0925838810005347>
380. Izwan Johari, Syamsuhaili Said, Badorul Hisham Abu Bakar, **Zainal Arifin Ahmad**, Effect of the change of firing temperature on microstructure and physical properties of clay bricks from Beruas (Malaysia), *Science of Sintering*, 42 (2010) 245-254, doi: 10.2298/SOS1002245J, <http://www.doiserbia.nb.rs/img/doi/0350-820X/2010/0350-820X1002245J.pdf>
381. J. K. C. Hao, A. Z. A. Azhar, M. M. Ratnam and **Z. A. Ahmad**, Wear performance and mechanical properties of 80 wt-%Al₂O₃/20 wt-%YSZ cutting inserts at different sintering rates and soaking times, *Materials Science and Technology* 2010 VOL 26 NO 1 95-103, <http://dx.doi.org/10.1179/174328408X389733>, <http://www.tandfonline.com/doi/abs/10.1179/174328408X389733>
382. Mohd Al Amin Muhamad Nor , Hazizan Md. Akil and **Zainal Arifin Ahmad**, The Fabrication of Porous Porcelain Using Commercially Available Polymeric Sponge Template as Core Materials for Sandwich Structures Fabrication, *JMS Bulletin (Kenbikyo)* Vol. 45, No. 1, 2010, page 18-21 (in Japanese)
383. Nur Azam Badarulzaman, Ahmad Azmin Mohamad, Sunara Puwadaria, **Zainal Arifin Ahmad**, The evaluation of nickel deposit obtained via Watts electrolyte at ambient temperature, *J. Coat. Technol. Res.*, 7 (6) 815–820, (2010), DOI 10.1007/s11998-010-9271-4, <https://link.springer.com/article/10.1007/s11998-010-9271-4>
384. Bun Kim Ngun, Hasmaliza Mohamad, Etsuo Sakai and **Zainal Arifin Ahmad**, Effect of rice husk ash and silica fume in ternary system on the properties of blended cement paste and concrete, *Journal of Ceramic Processing Research*. Vol. 11, No. 3, pp. 311–315 (2010), http://jcpr.kbs-lab.co.kr/file/JCPR_vol.11_2010/JCPR11-3/06%5B1%5D.311-315.pdf
385. Muhammad Azwadi Sulaiman, Sabar D. Hutagalung, Mohd Fadzil Ain, **Zainal A. Ahmad**, [Dielectric properties of Nb-doped CaCu₃Ti₄O₁₂ electroceramics measured at high frequencies](#), *Journal of Alloys and Compounds*, Volume 493, Issues 1-2, 18 March 2010, Pages 486-492,

- <http://doi.org/10.1016/j.jallcom.2009.12.137>,
<http://www.sciencedirect.com/science/article/pii/S0925838809026905>,
386. Ramani Mayappan, **Zainal Arifin Ahmad**, [Effect of Bi addition on the activation energy for the growth of Cu₅Zn₈ intermetallic in the Sn–Zn lead-free solder](#), *Intermetallics*, Volume 18, Issue 4, April 2010, Pages 730-735, <http://doi.org/10.1016/j.intermet.2009.11.016>,
<http://www.sciencedirect.com/science/article/pii/S0966979509003136>
 387. Mohd Firdaus Omar, Hazizan Md Akil, **Zainal Arifin Ahmad**, A.A.M. Mazuki, Takashi Yokoyama, [Dynamic properties of pultruded natural fibre reinforced composites using Split Hopkinson Pressure Bar technique](#), *Materials & Design*, Volume 31, Issue 9, October 2010, Pages 4209-4218, <http://doi.org/10.1016/j.matdes.2010.04.036>,
<http://www.sciencedirect.com/science/article/pii/S0261306910002475>
 388. [S. Shamsuddin](#), [S. B. Jamaludin](#), [Z. Hussain](#), and **Z. A. Ahmad**, Influence of Binder in Iron Matrix Composites, [AIP Conf. Proc.](#) March 11, 2010 [1217](#)(1), pp. 419-423, doi:10.1063/1.3377856,
<http://aip.scitation.org/doi/abs/10.1063/1.3377856>
 389. [Nur Shafiza A. Sharif](#), **Zainal A. Ahmad**, and [Sabar D. Hutagalung](#), La-Doped CaCu₃Ti₄O₁₂ Prepared By Conventional And Microwave Processing, [AIP Conf. Proc.](#) January 5, 2010, Volume [1202](#), pp. 122-126, doi:10.1063/1.3295581, <http://aip.scitation.org/doi/abs/10.1063/1.3295581>
 390. Hazman Seli, Ahmad Izani Md. Ismail, Endri Rachman, **Zainal Arifin Ahmad**, Characterization and thermal modeling of friction welded alumina-mild steel with the use of Al 1100 interlayer, [Journal of Alloys and Compounds](#), Volume 506, Issue 2, 17 September 2010, Pages 703–709, <http://doi.org/10.1016/j.jallcom.2010.07.047>,
<http://www.sciencedirect.com/science/article/pii/S0925838810017470>
 391. A. Jamaludin, Z. Ahmad, **Z.A. Ahmad** and A.A. Mohamad, A direct borohydride fuel cell employing a sago gel polymer electrolyte. *International Journal of Hydrogen Energy*, Volume 35, Issue 20, October 2010, Pages 11229–11236, <https://doi.org/10.1016/j.ijhydene.2010.07.037>,
<http://www.sciencedirect.com/science/article/pii/S036031991001356X>
 392. Farhad B Bahaaideen, Zaidi Mohd Ripin, **Zainal Arifin Ahmad**, Electroless Ni-P-Cg (graphite)-SiC composite coating and its application onto Piston Rings of a small two stroke utility engine, *Journal of Scientific and Industrial Research*, Vol. 69, November 2010, pp. 830-834,
<http://nopr.niscair.res.in/bitstream/123456789/10495/1/JSIR%2069%2811%29%20830-834.pdf>

393. Mohd Warikh Abd. Rashid, Sabar D. Hutagalung and **Zainal Arifin Ahmad**, Properties of a $\text{CaCu}_{3-x}\text{Mn}_{4+x}\text{O}_{12}$ system synthesized via a solid-state reaction, *Journal of Ceramic Processing Research*, Vol. 11, No. 6, pp. 660~664 (2010), http://jcpr.kbs-lab.co.kr/file/JCPR_vol.11_2010/JCPR11-6/05.660-664_2009-181.pdf

2009

394. Johar Banjuraizah, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, [Crystal structure of single phase and low sintering temperature of \$\alpha\$ -cordierite synthesized from talc and kaolin](#), *Journal of Alloys and Compounds*, 482 (2009) 429-436 (ISI)
395. Ahmad Zahirani Ahmad Azhar, M.M. Ratnam, **Zainal Arifin Ahmad**, [Effect of \$\text{Al}_2\text{O}_3/\text{YSZ}\$ microstructures on wear and mechanical properties of cutting inserts](#), *Journal of Alloys and Compounds*, Volume 478, Issues 1-2, 10 June 2009, 608-614 (ISI), DOI: 10.1111/j.1744-7402.2010.02486.x, <http://www.sciencedirect.com/science/article/pii/S0925838809007300>
396. Mohd Al Amin Muhamad Nor, Hazizan Md Akil and **Zainal Arifin Ahmad**, The Effect of Polymeric Template Density and Solid Loading on the Properties of Ceramic Foam, *Science of Sintering*, **41** (2009) 319-327, doi: 10.2298/SOS0903319N, <http://www.doiserbia.nb.rs/img/doi/0350-820X/2009/0350-820X0903319N.pdf>
397. Shah Rizal Kasim, Yeong Meng How, Hazman Seli, Hazizan Md Akil, **Zainal Arifin Ahmad**. The effect of calcium carbonate particle sizes on the β -tricalcium phosphate formation. *Journal of Ceramic Processing Research*. Vol. 10, No. 5, pp. 664~668 (2009), http://jcpr.kbs-lab.co.kr/file/JCPR_vol.10_2009/JCPR10-5/Vol.10,No.5,pp.664~668_2009.pdf
398. Chea Chandara, Khairun Azizi Mohd Azizli, **Zainal Arifin Ahmad**, Etsuo Sakai. [Use of waste gypsum to replace natural gypsum as set retarders in Portland cement](#). *Waste Management*, 29 (2009) 1675-1679 (ISI), <http://www.sciencedirect.com/science/article/pii/S0956053X08003991>, <https://doi.org/10.1016/j.wasman.2008.11.014>
399. Nur Azam Badarulzaman, Sunara Purwadaria, Ahmad Azmin Mohamad, **Zainal Arifin Ahmad**, Production of Nickel-Alumina Composite Coating via Electroplating, *Ionics* 15(2009) 603-607 (ISI), <https://link.springer.com/article/10.1007/s11581-008-0307-z>, DOI: 10.1007/s11581-008-0307-z
400. Sabar D. Hutagalung, Li Ying Ooi, **Zainal A. Ahmad**, Improvement in dielectric properties of Zn-doped $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ electroceramics prepared by

modified mechanical alloying technique. *Journal of Alloys and Compounds*, 476(2009)477-481 (ISI),
<https://doi.org/10.1016/j.jallcom.2008.09.025>,
<http://www.sciencedirect.com/science/article/pii/S0925838808014850>

401. S. Sreekantan, Y.K. Ling, **Z. A. Ahmad**, M.F. Ain, M.B. Othman, S.I.S. Hassan, Simulation and experimental investigation on rectangular, circular and cylindrical dielectric resonator antenna, *Progress in Electromagnetics Research C*, 7(2009)151-166.
<http://www.jpier.org/PIERC/pierc07/12.09021802.pdf>
402. Ramani Mayappan, **Zainal Arifin Ahmad**, Temperature and Flux Effect on Contact Angles and Intermetallic Between Sn-8Zn-3Bi Lead-free Solder and Cu Substrate, *Sains Malaysiana* 38(3)(2009): 395-400,
http://www.ukm.my/jsm/english_journals/vol38num3_2009/vol38num3_09page395-400.html
403. Farhad B. Bahaideen, Ahmed M. Saleem, Khaleed Hussain M.T., Zaidi Mohd. Ripin, **Zainal Arifin Ahmad**, Zahurin Samad, Nur Azam Badarulzaman, Fatigue behaviour of aluminum alloy at elevated temperature, *Modern Applied Science*, 3(4)(2009) 52-61,
<http://dx.doi.org/10.5539/mas.v3n4p52>,
<http://www.ccsenet.org/journal/index.php/mas/article/view/1246>,
404. Hazman Seli, Ahmad Izani Md. Ismail, Endri Rachman, **Zainal Arifin Ahmad**, Mathematical modeling for heating and cooling temperature distribution during friction welding process, *Proceedings of International Conference on Welding Technologies'09*, 11-13 June 2009, Welding Technology Society – Gazi University – Ankara, Turkey, 317-325.
405. M.N. Mohd Al Amin, H. Md Akil, **Zainal Arifin Ahmad**, Microstructure and properties of ceramic foam produced via polymeric foam replication method. *Proceedings of the Sixty-fifth Annual Meeting of The Japanese Society of Microscopy (JSM2009)*, vol.44, Supplement 1, 2009, 51

2008

406. Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad**, Radzali Othman and Anthony West. Structural and electrical characteristic of crystalline barium titanate synthesized by low temperature aqueous method. *Journal of Materials Processing Technology*, Volume 195, Issues 1-3, 1 January 2008, Pages 171-177, (ISI),
<https://doi.org/10.1016/j.jmatprotec.2007.04.120>,
<http://www.sciencedirect.com/science/article/pii/S0924013607004839>,

407. Sabar D. Hutagalung, Mohd Ikhwan M. Ibrahim, **Zainal A. Ahmad**. [The role of tin oxide addition on the properties of microwave treated \$\text{CaCu}_3\text{Ti}_4\text{O}_{12}\$](https://doi.org/10.1016/j.matchemphys.2008.05.020) *Materials Chemistry and Physics*, Volume 112, Issue 1, 15 November 2008, Pages 83-87 (ISI), <https://doi.org/10.1016/j.matchemphys.2008.05.020>, <http://www.sciencedirect.com/science/article/pii/S025405840800285X>,
408. Mohd Al Amin Muhamad Nor, Lee Chain Hong, **Zainal Arifin Ahmad**, Hazizan Md Akil, Preparation and characterization of ceramic foam produced via polymeric foam replication method, *Journal of Materials Processing Technology*, Volume 207, Issues 1-3, 16 October 2008, Pages 235-239 (ISI), <https://doi.org/10.1016/j.jmatprotec.2007.12.099>, <http://www.sciencedirect.com/science/article/pii/S092401360701463X>
409. Sabar D. Hutagalung, M. Ikhwan M. Ibrahim, **Zainal A. Ahmad**. Microwave assisted sintering of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$. *Ceramics International*, Volume 34, Issue 4, May 2008, Pages 939-942 (ISI), <https://doi.org/10.1016/j.ceramint.2007.09.074>, <http://www.sciencedirect.com/science/article/pii/S0272884207003094>
410. Hasmaliza Mohamad, Ahmad Fauzi Mohd Noor and **Zainal Arifin Ahmad**, Influence of Alkoxide Molar Ratio on Rheological Study of Alumina Sol for Fibre Preparation, *Journal of Synth. React. Inorg. Met.-Org. Nano-Metal Chem*, Vol. 3, Issue 3, p. 322-324, Apr. 2008 (ISI), DOI:10.1080/15533170802023569, <http://www.tandfonline.com/doi/abs/10.1080/15533170802023569>
411. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**, Alumina–mild steel friction welded at lower rotational speed, *Journal of Materials Processing Technology*, Volume 204, Issues 1-3, 11 August 2008, Pages 279-283 (ISI), <http://www.sciencedirect.com/science/article/pii/S0924013607010783>, <https://doi.org/10.1016/j.jmatprotec.2007.11.100>
412. A.R. Mohd Warikh, A.Z. Ahmad Zahirani, S.D. Hutagalung, **A. Zainal Ahmad**, The effect of sintering soaking time on microstructural and properties of $\text{CaCu}_3\text{Mn}_4\text{O}_{12}$ system, American Institute of Physics (AIP) Conference Proceedings, Vol. 989 (2008) 89-91, <http://aip.scitation.org/doi/abs/10.1063/1.2906102>, <http://dx.doi.org/10.1063/1.2906102>
413. M.F. Ain, S.I.I. Hassan, M.A. Othman, S. Sreekantan, S.D. Hutagalung, **Z.A. Ahmad**, Wideband dielectric resonator antenna for C-Band application. *Proceeding of the International Conference on Computer and Communication Engineering 2008*, May 13-15, Kuala Lumpur, Malaysia. 978-1-4244-1692-9/08, page 997-999, <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4580757>

414. J.J. Mohamed, S.D. Hutagalung, **Z.A. Ahmad**, The effect of different processing on CCTO formation, *Solid State Science and Technology Letters*, 15 (2008) 27-31
415. T. Darsono, S.D. Hutagalung, **Z.A. Ahmad**, C.K. Yew, K.A. Yaacob, Localize I-V characterization of nano dot silicon oxide using atomic force microscopy (AFM), *Solid State Science and Technology Letters*, 15 (2008) 75-80
416. A.R. Mohd Warikh, A.Z. Ahmad Zahirani, S.D. Hutagalung, **A. Zainal Ahmad**, The effect of sintering soaking time on microstructural and properties of $\text{CaCu}_3\text{Mn}_4\text{O}_{12}$ system, *American Institute of Physics (AIP) Conference Proceedings*, Vol. 989 (2008) 89-91, <http://dx.doi.org/10.1063/1.2906102>, <http://aip.scitation.org/doi/abs/10.1063/1.2906102>

2007

417. Julie J. Mohamed, Sabar D. Hutagaung, M. Fadzil Ain, Karim Deraman, **Zainal Arifin Ahmad**. Microstructure and dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ceramic. *Materials Letters*, 61(2007),1835-1838 (ISI), <http://www.sciencedirect.com/science/article/pii/S0167577X06009578>, <https://doi.org/10.1016/j.matlet.2006.07.192>
418. Yeoh Cheow Keat, Srimala Sreekantan, Sabar Derita Hutagalung and **Zainal Arifin Ahmad**. Fabrication of BaTiO_3 thin films through ink-jet printing of TiO_2 sol and soluble Ba salts. *Materials Letters*, 61 (2007) 4536-4539. (ISI), <https://doi.org/10.1016/j.matlet.2007.02.046>, <http://www.sciencedirect.com/science/article/pii/S0167577X07002017>
419. Yeoh Cheow Keat, Mohd. Fadhli Ahmad, **Zainal Arifin Ahmad**. Effects of Cu and Ti excess on the dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ prepared using a wet chemical method. *Journal of Alloys and Compounds*. 443 (2007) 155-160(ISI), <https://doi.org/10.1016/j.jallcom.2006.10.016>, <http://www.sciencedirect.com/science/article/pii/S0925838806016045>
420. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Tadashi Ariga, Luay Bakir Hussain. The effect of crosshead speed on the joint strength between Sn-Zn-Bi lead-free solders and Cu substrate. *Journal of Alloys and Compounds*. 436 (2007) 112-117. (ISI), <https://doi.org/10.1016/j.jallcom.2006.07.035>, <http://www.sciencedirect.com/science/article/pii/S0925838806008899>

421. Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad**, Radzali Othman, Anthony West, Derek Sinclair. Characterization of Ba_{0.9}Sr_{0.1}TiO₃ prepared by low temperature chloride aqueous synthesis, J. Mater Sci (2007) 42:2492-2498, DOI 10.1007/s10853-006-0797-x, <https://www.springerprofessional.de/characterization-of-ba0-9sr0-1tio3-prepared-by-low-temperature-c/3471892>
422. M.F.Ain, S.I.S. Hassan, J.S. Mandeep, M.A. Othman, S. Sreekantan, S.D. Hutagalung, **Z.A. Ahmad**. 2.5GHz BaTiO₃ dielectric resonator antenna. Progress in Electromagnetic Research, PIER 76, 201-210, 2007. (ISI), <http://jpieer.org/PIER/pier76/13.07071102.AHM.Othman.N.pdf>
423. S.D. Hutagalung, J.J. Mohamed, **Zainal Arifin Ahmad**. Lowering calcination temperature of CaCu₃Ti₄O₁₂ formation by modified mechanical alloying process. Emirates Journal for Engineering Research, 12(2), (2007)61-64, http://www.eng.uaeu.ac.ae/en/research/journal/issues/v12/pdf_iss2_12/8.pdf

2006

424. Teoh Wah Tzu, **Zainal Arifin Ahmad**, Ahmad Fauzi Mohd Noor. Dielectric properties and microstructure of Ba_{0.70}Sr_{0.30}TiO₃ derived from mechanically activated BaCO₃-SrCO₃-TiO₂. Adv. In Tech. of Mat. And Mat. Proc. Journal, vol. 8[2] 274-277 (2006), <http://www.azom.com/article.aspx?ArticleID=3581>
425. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Tadashi Ariga, Luay Bakir Hussain. Effect of sample perimeter and temperature on Sn-Zn based lead-free solders. Materials Letters 60 (2006) 2383-2389(ISI), <https://doi.org/10.1016/j.matlet.2006.01.024>, <http://www.sciencedirect.com/science/article/pii/S0167577X06000425>
426. H. Md. Akil, Ng Lily, J. Abd. Razak, Huilin Ong, **Zainal Arifin Ahmad**. Effect of various coupling agents on properties of alumina-filled PP composites. Journal of Reinforced Plastics and Composites, vol. 25[7] 745-759 (2006). (ISI), <http://journals.sagepub.com/doi/abs/10.1177/0731684406062068>
427. Shuquan Liang, Baiyun Huang, **Zainal Arifin Ahmad**, Ahmad Fauzi Mohd Noor, Kamarudin Hussin, *Preparation and evaluation of Al₂O₃ plastic forming feedstock with partially water soluble polymer as a binder*, J. of Materials Processing Technology, 137,2003, 128-131(ISI), [https://doi.org/10.1016/S0924-0136\(02\)01099-3](https://doi.org/10.1016/S0924-0136(02)01099-3), <http://www.sciencedirect.com/science/article/pii/S0924013602010993>

Other publications

2009

1. Yeong Meng How, Shah Rizal Kasim, Hazizan Md Akil, **Zainal Arifin Ahmad**, Effect of CaCO_3 particle size in synthesis of β -TCP powder. Journal of Nuclear and Related Technologies, Vol. 6, Special Edition, (December 2009), 19-24, <http://www.myjurnal.my/public/article-view.php?id=17362>, <http://docplayer.net/32773201-Effect-of-caco-3-particle-size-in-synthesis-of-v-tcp-powder.html>
2. Sabar D. Hutagalung, Siew T. Eng, **Zainal A. Ahmad**, Ishak Mat, and Yussof Wahab, From zinc selenate to zinc selenide nanostructures synthesized by reduction process, Journal of Nuclear and Related Technologies, Vol. 6, Special Edition, (December 2009), 147-154, <http://www.myjurnal.my/public/article-view.php?id=17720> <https://www.scribd.com/document/200243749/From-Zinc-Selenate-to-Zinc-Selenide-Nanostructures>
3. Ramani Mayappan, Ahmad Badri Ismail, and **Zainal Arifin Ahmad**, Microstructural evolution and growth kinetics of Sn-40Pb/Cu solder joint during long-term aging at 125°C, Journal of Nuclear and Related Technologies, Vol. 6, Special Edition, (December 2009), 165-172, <http://www.myjurnal.my/public/article-view.php?id=17723> <http://citeseerx.ist.psu.edu/viewdoc/citations;jsessionid=34182F8BDFE5E2D29F12EF9673A3CEBA?doi=10.1.1.686.3161>
4. Nur Azam Badarulzaman, Ng, Jun Wei, Ahmad Azmin Mohamad, Purwadaria, Sunara, Zainal Arifin Ahmad, Electrodeposition of nickel-phosphorus-alumina composite coatings, [Journal of Nuclear and Related Technologies](#), Volume 6, 2009, No. 1 Special Edition, Pages 43 to 50, <http://www.myjurnal.my/public/article-view.php?id=17365>
5. Mohd Al Amin Muhamad Nor, Maryam Mohd Ridzuan, Zainal Arifin Ahmad, Synthesis and characterization of β -tricalcium phosphate ceramic via sol-gel method, [Journal of Nuclear and Related Technologies](#), Volume 6, 2009, No. 1 Special Edition, Pages 199 to 205, <http://www.myjurnal.my/public/article-view.php?id=17729>

2008

6. Mohd Al-Amin M. Nor, Hazizan Md. Akil, Shahrul Ami Zainal Abidin, **Zainal Arifin Ahmad**. Response of ceramic foam core sandwich composites under flexural loading, Malaysian Construction Research Journal, Vol.2(1)2008, 100-107, <http://www.cream.my/main/index.php/publication/download-mcrj#>

7. Saidatulakmar Shamsuddin, J. Shamsul Baharin, H. Zuhailawati, **Zainal Arifin Ahmad**, Microstructure and microhardness properties of Fe-Cr-Al₂O₃ composites, Malaysian Journal of Microscopy, Vol. 4 (2008), 118-123.
8. J. Izwan, A.B. Badorol Hisham, **Zainal Arifin Ahmad**, Sintering effect on microstructure of fired-clay brick containing rice husk ash, Malaysian Journal of Microscopy, Vol. 4 (2008), 74-79
9. Shah Rizal Kasim, Yeong Meng Yee, Hazman Seli, Hazizan Md. Akil, **Zainal Arifin Ahmad**, Effect of Ca₂P₂O₇ additions on sintered β -TCP, Malaysian Journal of Microscopy, Vol. 4 (2008), 74-79.
10. Saidatulakmar Shamsuddin, Shamsul Baharin Jamaludin, Zuhailawati Hussain and **Zainal Arifin Ahmad**, Characterization of Fe-Cr-Al₂O₃ Composite Fabricated by Powder Metallurgy Method with Varying Weight Percent of Alumina, Journal of Physical Science, Vol. 19(1)(2008), 89-95, <http://jps.usm.my/wp-content/uploads/2014/11/Article-19-1-8.pdf>
11. Lim Shu Lee, **Zainal Arifn Ahmad**, Zainovia Lockman, 'Effect of Organic Additives on the Formation of CeO₂ Buffer Layer for Coated Conductor' Regional Conference on Solid State Science and Technology 2008. Port Dickson, 20th November -2nd December 2008
12. S.D. Hutagalung, Eng. S. Tze, **Z.A. Ahmad**, Ishak Mat, Effect of reductive agent on the formation of zinc selenide nanostructure, Proc. 6th International Conference on Porous Semiconductors-Science and Technology, Mallorca, Spain, 10-14 March 2008, pp. 246-247
13. S.D. Hutagalung, T. Darsono, **Z.A. Ahmad**, S. Sakrani, Current-voltage characteristics of silicon oxide nanodot grown by AFM lithography, Proc. International Conference on Nanoscience and Nanotechnology (ICONN 2008)-Symposium C Nanoelectronics, Melbourne, Australia, 25-29 February 2008, pp. 14-15.
14. M. F. Ain, S. I. S. Hassan, M. A. Othman, S.Sreekantan, S. D. Hutagalung, and **Z. A. Ahmad** (2008) Wideband Dielectric Resonator Antenna for C-Band Application, International Conference on Computer and Communication Engineering, 13-15th May, Kuala Lumpur, Malaysia –(in ISI database)
15. Bun Kim Ngun, Hasmaliza Mohamad, **Zainal Arifin Ahmad**, Etsuo Sakai. Effect of silica Fume and rice husk ash on the Microstructure of blended cement paste and compressive strength of concrete, International

Conference on X-Ray and Related Techniques in Research and Industry (ICXRI), Sabah Malaysia, 2 – 6 Jun 2008

16. Julie J. Mohamed, Sabar D. Hutagalung, **Zainal A. Ahmad** (2008), CCTO Formation From Different Processing Method, Buletin Enjinier, Jil 10 Bil. 01, USM, Page 7 – 9
17. J. Izwan, A.B. Badorol Hisham, **Zainal Arifin Ahmad**, Sintering effect on microstructure of fired-clay brick containing rice husk ash, Malaysian Journal of Microscopy, Vol. 4 (2008), 74-79.
18. Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad**, Radzali Othman, Densification and grain size effect in dielectric properties of barium titanate, Malaysian Journal of Microscopy, Vol. 4 (2008), 80-88.
19. Saidatulakmar Shamsuddin, J. Shamsul Baharin, H. Zuhailawati, **Zainal Arifin Ahmad**, Microstructure and microhardness properties of Fe-Cr-Al₂O₃ composites, Malaysian Journal of Microscopy, Vol. 4 (2008), 118-123.
20. Shah Rizal Kasim, Yeong Meng Yee, Hazman Seli, Hazizan Md. Akil, **Zainal Arifin Ahmad**, Effect of Ca₂P₂O₇ additions on sintered β -TCP, Malaysian Journal of Microscopy, Vol. 4 (2008), 74-79.
21. Saidatulakmar Shamsuddin, Shamsul Baharin Jamaludin, Zuhailawati Hussain and **Zainal Arifin Ahmad**, Characterization of Fe-Cr-Al₂O₃ Composite Fabricated by Powder Metallurgy Method with Varying Weight Percent of Alumina, Journal of Physical Science, Vol. 19(1)(2008), 89-95.

2007

22. B. Nur Azam, M. Ahmad Azmin, S. Purwadaria and **A.A. Zainal**, The microstructure of electrodeposited Cu-Sn/SiO₂. Malaysian Journal of Microscopy, Vol. 3 (2007), 58-62.
23. J.M. Julie, S.D. Hutagalung, A. Mohd Fadhill, D. Karim and **A.A. Zainal**, The effect of sintering temperature on the microstructure and dielectric properties of CaCu₃Ti₄O₁₂. Malaysian Journal of Microscopy, Vol. 3 (2007), 133-139.
24. Shah Rizal Kasim, Hazman Seli, Yeong Meng Yee, Hazizan Md. Akil and **Zainal Arifin Ahmad**. Preparation and characterization of composite β -Ca₃(PO₄)₂-Al₂O₃. Malaysian Journal of Microscopy, Vol. 3 (2007), 212-217.

25. A.R. Mohd Warikh, S.D. Hutangalung and **A. Zainal Arifin**, The effect of sintering temperature on the microstructural and electrical properties of $\text{CaCu}_3\text{Mn}_4\text{O}_{12}$ system. Malaysian Journal of Microscopy, Vol. 3 (2007), 227-233.
26. C.K. Yeoh, S. Srimala, D.H. Sabar, **A. Zainal Arifin**, Microstructure of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ prepared through a wet chemical method. Malaysian Journal of Microscopy, Vol. 3 (2007), 234-239.
27. M.Z. Noh, L.B. Hussain and **A. Zainal Arifin**, Correlation between the bending strength and the interlayer thickness of alumina-mild steel friction welded at lower rotational speed. Malaysian Journal of Microscopy, Vol. 3 (2007), 257-262.
28. B. Nur Azam, M. Ahmad Azmin, S. Purwadaria and **A.A. Zainal**, The microstructure of electrodeposited Cu-Sn/SiO₂. Malaysian Journal of Microscopy, Vol. 3 (2007), 58-62.
29. J.M. Julie, S.D. Hutagalung, A. Mohd Fadhil, D. Karim and **A.A. Zainal**, The effect of sintering temperature on the microstructure and dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$. Malaysian Journal of Microscopy, Vol. 3 (2007), 133-139.
30. D. Mohd Nazree, **A. Zainal Arifin**, H. Luay Bakir and M.S. Nurulakmal, Corrosion behaviour of anodized PM aluminum matrix composite reinforced with 15 wt% Safill™ alumina short fibre. Malaysian Journal of Microscopy, Vol. 3 (2007), 140-145.
31. Shah Rizal Kasim, Hazman Seli, Yeong Meng Yee, Hazizan Md. Akil and **Zainal Arifin Ahmad**. Preparation and characterization of composite $\beta\text{-Ca}_3(\text{PO}_4)_2\text{-Al}_2\text{O}_3$. Malaysian Journal of Microscopy, Vol. 3 (2007), 212-217.
32. A.R. Mohd Warikh, S.D. Hutangalung and **A. Zainal Arifin**, The effect of sintering temperature on the microstructural and electrical properties of $\text{CaCu}_3\text{Mn}_4\text{O}_{12}$ system. Malaysian Journal of Microscopy, Vol. 3 (2007), 227-233.
33. C.K. Yeoh, S. Srimala, D.H. Sabar, **A. Zainal Arifin**, Microstructure of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ prepared through a wet chemical method. Malaysian Journal of Microscopy, Vol. 3 (2007), 234-239.
34. M.Z. Noh, L.B. Hussain and **A. Zainal Arifin**, Correlation between the bending strength and the interlayer thickness of alumina-mild steel friction

welded at lower rotational speed. Malaysian Journal of Microscopy, Vol. 3 (2007), 257-262.

35. Mohd Nazri Idris, Hazizan Md. Akil, **Zainal Arifin Ahmad**, Synthesis of silica fine particle by the addition of a non-ionic surfactant. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 29-34, <http://www.myjurnal.my/public/article-view.php?id=17784>
36. Mohd Al Amin Muhamad Nor, Lee Chain Hong, Hazizan Md. Akil, **Zainal Arifin Ahmad**, Effect of slurries density on the properties of ceramic foam produced via polymer replication method. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 35-42, <http://www.myjurnal.my/public/article-view.php?id=17785>
37. Yeoh Cheow Keat, Srimala Sreekantan, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**, Preparation of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ prepared using a wet chemical method. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 53-62, <http://www.myjurnal.my/public/article-view.php?id=17788>
38. Mohd Warikh Abd. Rashid, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**, Properties of $\text{CaCu}_3\text{-xMn}_{4+\text{x}}\text{O}_{12}$ ($x = 0.1, 0.3, 0.5, 0.7, 0.9$) system synthesized via solid-state reaction. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 63-70, <http://www.myjurnal.my/public/article-view.php?id=17789>
39. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**, Correlation between the bending strength and the thickness interlayer of alumina-mild steel friction welded at lower rotational speed. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 75-82, <http://www.myjurnal.my/public/article-view.php?id=17791>
40. Nur Azam Badarulzaman, Lee Chung Heung, Ahmad Azmin, Sunara Purwadaria, **Zainal Arifin Ahmad**, The effect of agitation speed on the co-deposition of Ni-SiC composite coating. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 83-86, <http://www.myjurnal.my/public/article-view.php?id=17792>
41. Shah Rizal Kasim, Yeong Meng Yee, Hazman Seli, Hazizan Md. Akil, **Zainal Arifin Ahmad**, Evaluation and characterization of β -tricalcium phosphate powder prepared by $\text{CaCO}_3/\text{H}_3\text{PO}_4$ system. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 93-100, <http://www.myjurnal.my/public/article-view.php?id=17794>

42. Srimala Sreekantan, A. F. Mohd Noor, **Zainal Arifin Ahmad**, Radzali Othman, Anthony West, Derek Sinclair, Structural and electrical characteristic of Ba_{0.7}Sr_{0.3}TiO₃ with a secondary phase BaTiO₃. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 115-126, <http://www.myjurnal.my/public/article-view.php?id=17797>

43. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Tadashi Arigar, Luay Bakir Hussain, Intermetallic phase formation and thickness of tin-zinc based lead-free solders. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 143-148, <http://www.myjurnal.my/public/article-view.php?id=17802>

44. Mohd Nazree Derman, **Zainal Arifin Ahmad**, Luay Bakir Hussain, Nurul akmal Nohd Sharif, Study of anodized PM aluminium matrix composite reinforced with 15 wt% SaffilTM alumina short fibre. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 155-158, <http://www.myjurnal.my/public/article-view.php?id=17804>

45. Haryanti, S. Purwadaria, **Zainal Arifin Ahmad**, Electrodeposition of white copper-tin alloys from alkaline cyanide solutions. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 159-164, <http://www.myjurnal.my/public/article-view.php?id=17805>

46. Julie Juliewatty Mohamed, Mohd Riduan, Sabar derita hutagalung, **Zainal Arifin Ahmad**, Influence of calcination parameters on CaCu₃Ti₄O₁₂ formation and its microstructure. Journal of Nuclear and Related Technologies, Vol. 4, Special Edition, (2007), 171-176, <http://www.myjurnal.my/public/article-view.php?id=17807>

47. Yeoh Cheow Keat, Srimala Sreekantan, Sabar Derita Hutagalung and **Zainal Arifin Ahmad**. The effect if low temperature aqueous synthesis on the dielectric properties of BaTiO₃. Proceedings of the 12th Asian Chemical Congress (12ACC), August 23-25, 2007, Putra World Trade Centre, Kuala Lumpur, Malaysia. Page 371

48. Srimala Sreekantan, **Zainal Arifin Ahmad**, Ishak Mat. Surface engineering of titanium from excellent cell-metal interaction. Proceedings of the 12th Asian Chemical Congress (12ACC), August 23-25, 2007, Putra World Trade Centre, Kuala Lumpur, Malaysia. Page 393

2006

49. Yeoh Cheow Keat, Srimala Sreekantan, Sabar Derita Hutagalung and **Zainal Arifin Ahmad**. Dielectric behaviour of BaTiO₃ prepared by sol-gel

technique when exposed to different oxygen concentration. *Jurnal Teknologi*, 45A December (2006) 55-65

50. Srimala S., Ahmad Fauzi M.N., **Zainal Arifin Ahmad**, Radzali O., West A., Sinclair D. Impedance spectroscopy of BST prepared by low temperature aqueous synthesis. *J. of Physical Science*, vol. 17(1), 35-52 (2006).
51. Anita Hanim Ahmadi, Mohd Al-Amin M. Nor, Hazizan Md. Akil, **Zainal Arifin Ahmad**. Ceramic foam as a core material in sandwich structure construction. *J. of Physical Science*, vol. 17(1), 21-33 (2006).
52. M. Ramani, A.B. Ismail, **Zainal Arifin Ahmad**, T. Ariga, L.B. Hussain. Joint strength and interfacial microstructure between Sn-Pb, Sn-Zn, and Sn-Zn-Bi solders on Cu substrate, *Malaysian Journal of Microscopy*, Vol. 2, (2006), 7-14.
53. S. Srimala, M.N. Ahmad Fauzi, **Zainal Arifin Ahmad**, O. Radzali. Characterization of barium titanate (BT) prepared via low temperature chloride aqueous method via XRD, SEM and TEM. *Malaysian Journal of Microscopy*, Vol. 2, (2006), 23-30.
54. J.M. Julie, A.R. Hairol, **Zainal Arifin Ahmad**. The effect of CuO addition in CCTO on dielectric properties and microstructure, *Malaysian Journal of Microscopy*, Vol. 2, (2006), 38-41.
55. M.Z. Noh, L.B. Hussain, **Zainal Arifin Ahmad**. The study of speed rotation on strength of steel-alumina friction welding, *Malaysian Journal of Microscopy*, Vol. 2, (2006), 98-103.
56. M. Hasmaliza, M.N. Ahmad Fauzi, **Zainal Arifin Ahmad**. Effect of lactic acid on sol-gel spun alumina fibre, *Malaysian Journal of Microscopy*, Vol. 2, (2006), 104-107.
57. Yeoh C.K., Srimala Sreekantan, Sabar, D.H, **Zainal Arifin Ahmad**. Inkjet printing of $\text{CaCu}_2\text{Ti}_4\text{O}_{12}$, *Malaysian Journal of Microscopy*, Vol. 2, (2006), 128-133.
58. Noraziana Parimin, **Zainal Arifin Ahmad**. A study of sintering time on composite of iron-chromium reinforced with 10 wt% silicon carbide particles at normal atmosphere. *Malaysian Journal of Microscopy*, Vol. 2, (2006), 172-179.

59. Mohd Nazree Derman, Kong Chia Wei, **Zainal Arifin Ahmad**, Nurulakmal Mohd Sharif. The effects of sulphuric acid concentration on anodized aluminium matrix composite reinforced with 15 wt% short fibre alumina Saffil™, Malaysian Journal of Microscopy, Vol. 2, (2006), 204-208.

60. Mohd Warikh Abd. Rashid, Sabar, Derita Hutagalung, **Zainal Arifin Ahmad**. Physical and microstructure studies on $\text{CaCu}_3\text{Mnx-4O}_{12}$ compounds, Malaysian Journal of Microscopy, Vol. 2, (2006), 250-257.

61. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**. Correlation between the bending strength and the microstructural behaviour of alumina-mild steel friction welded. Proceeding of electron microscopy conference 2006, 4-6 December 2006, Kuala Terengganu

62. Yeoh Cheow Keat, Srimala Sreekantan, Sabar, Derita Hutagalung, **Zainal Arifin Ahmad**. Microstructure of $\text{CaCu}_2\text{Ti}_4\text{O}_{12}$ prepared through a wet chemical method. Proceeding of electron microscopy conference 2006, 4-6 December 2006, Kuala Terengganu

63. Mohd Warikh Abd. Rashid, Sabar, Derita Hutagalung, **Zainal Arifin Ahmad**. The effect of sintering temperature on the microstructural and electrical properties of $\text{CaCu}_3\text{Mn}_4\text{O}_{12}$ system, Proceeding of electron microscopy conference 2006, 4-6 December 2006, Kuala Terengganu

64. Nur Azam Badarulzaman, Ahmad Azmin Mohamad, Sunara Purwadaria, **Zainal Arifin Ahmad**. Electrodeposition of CuSnZn/SiO_2 composite coating. Proceeding of electron microscopy conference 2006, 4-6 December 2006, Kuala Terengganu

65. Shah Rizal Kasim, Hazman Seli, Hazizan Md. Akil, **Zainal Arifin Ahmad**. Preparation and characterization of composite β -tricalcium phosphate-alumina. Proceeding of electron microscopy conference 2006, 4-6 December 2006, Kuala Terengganu

66. Julie J. Mohamed, Sabar D. Hutagalung, Mohd. Fadzil Ain, Karim Deraman, **Zainal Arifin Ahmad**. The effect of sintering temperature on the microstructure and dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$. Proceeding of electron microscopy conference 2006, 4-6 December 2006, Kuala Terengganu

67. Mohd Nazree Derman, **Zainal Arifin Ahmad**, Luay Bakir Hussain, Nurulakmal Mohd Sharif. Corrosion effect on anodized PM aluminium matrix composite reinforced with 15 wt% Saffil™ short fibre alumina, Proceeding of electron microscopy conference 2006, 4-6 December 2006, Kuala Terengganu

68. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Tadashi Ariga, Luay Bakir Hussain. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

69. S. Srimala, M.N. Ahmad Fauzi, **Zainal Arifin Ahmad**, O. Radzali, Anthony West, Derek Sinclair. Structural and electrical characteristic of $\text{Ba}_{0.7}\text{Sr}_{0.3}\text{TiO}_3$ with secondary phase BaTi_2O_5 . Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

70. Julie Juliewatty Mohamed, Mohd Riduan, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**. Influence of calcinations parameters on $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ formation and its microstructure. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

71. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**. A microstructure study on Al_2O_3 -Al and Al-steel interfaces for ceramic-metal joints via friction welding. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

72. Yeoh Cheow Keat, Srimala Sreekantan, Sabar, Derita Hutagalung, **Zainal Arifin Ahmad**. Preparation of $\text{CaCu}_2\text{Ti}_4\text{O}_{12}$ using a wet chemical method. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

73. Mohd Nazree Derman, Kong Chia Wei, **Zainal Arifin Ahmad**, Nurulakmal Mohd Sharif. Study of anodized PM aluminium matrix composite reinforced with 15 wt% short fibre alumina Saffil™, Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

74. Mohd Warikh Abd. Rashid, Pathi Hussain, Mat Husin Saleh, Sabar, Derita Hutagalung, **Zainal Arifin Ahmad**. Synthesis and properties of $\text{CaCu}_3\text{Mn}_{x-4}\text{O}_{12}$ ($3.5 \leq x \leq 4.5$). Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

75. Nur Azam Badarulzaman, Hariyanti, Ahmad Azmin Mohamad, Sunara Purwadaria, **Zainal Arifin Ahmad**. Co-deposition Cu-Sn-Zn alloy from an

alkaline cyanide solution. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.

76. Hariyanti, Sunara Purwadaria, **Zainal Arifin Ahmad**. Study on the electrodeposition of white Cu-Sn alloys from alkaline cyanide solutions. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.
77. Shah Rizal Kasim, Hazizan Md. Akil, **Zainal Arifin Ahmad**. Influence of sintering additives and sintering temperature in the fabrication of dense hydroxyapatite. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.
78. Khairrel Rafezi Ahmad, M.W.M. Fitri, M.N. Mazlee, J.B. Shamsul, **Zainal Arifin Ahmad**. The effect of Al_2O_3 particle size on the microstructure of composite Al fabricated by powder metallurgy method. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.
79. Mohd Nazri Idris, **Zainal Arifin Ahmad**, Sunara Purwadaria. Study on potentiodynamic polarization on microstructure of sacrificial zinc-based alloy for cathodic protection system. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.
80. Mohd Al-Amin Muhamad Nor, Lee Chain Hong, Hazizan Md. Akil, **Zainal Arifin Ahmad**. Effect of slurries density on the properties of ceramic foam produced via polymer replication method. Proceeding of the International Conference on X-Ray and Related Techniques in Research and Industry (ICXRI2006), 29 – 30 November 2006, Palm Garden Hotel, Putrajaya.
81. Sabar D. Hutagalung, M. Ikhwan M. Ibrahim, **Zainal Arifin Ahmad**. Microwave assisted sintering of $\text{CaCu}_2\text{Ti}_4\text{O}_{12}$. Proceeding of the 5th Asian Meeting on Electroceramics (AMEC-5), 10-14 December 2006, Bangkok, Thailand. FO-13.
82. Sabar D. Hutagalung, L.Y. Ooi, **Zainal Arifin Ahmad**. Preparation of Zn-doped $\text{CaCu}_2\text{Ti}_4\text{O}_{12}$ prepared by modified mechanical alloying technique. Proceeding of the 5th Asian Meeting on Electroceramics (AMEC-5), 10-14 December 2006, Bangkok, Thailand. FP-10.

83. Mohd Warikh Abd. Rashid, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**. The effect of sintering temperature on the properties of $\text{CaCu}_3\text{Mn}_4\text{O}_{12}$ (CCMO) synthesis via solid state reaction. National Seminar on Science and Its Application in Industry (SSASI 2006), Malacca, A94-A99 (2006).

84. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**. Effect of rod diameter on the strength of the alumina-steel friction bonded. 2nd International Conference on Solid State Science and Technology, Kuala Terengganu. 4-6 September 2006.

85. Shah Rizal Kasim, Tee Dee In, Hazizan Md. Akil, **Zainal Arifin Ahmad**. Study on the physical properties and microstructures of sintered dense hydroxyapatite bodies. 3rd Post Graduate research Papers 2005/2006, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, March 2006, 15-18.

86. Mohd Warikh Abd. Rashid, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**. Microstructure and electrical properties of $\text{CaCu}_3\text{Mn}_{4-x}\text{O}_{12}$ ($x=3.3, 3.5, 3.7, 4.0, 4.3, 4.5, 4.7$). 3rd Post Graduate research Papers 2005/2006, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, March 2006, 26-30.

87. Yeoh Cheow Keat, Srimala Sreekantan, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**. $\text{CaCu}_2\text{Ti}_4\text{O}_{12}$ films obtained through ink jet printing. 3rd Post Graduate research Papers 2005/2006, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, March 2006, 31-33.

88. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Tadashi Ariga, Luay Bakir Hussain. Effect of fluxes and temperatures on the spreading area of Sn-Zn based lead-free solders. 3rd Post Graduate research Papers 2005/2006, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, March 2006, 61-64.

89. Hariyanti, S. Purwadaria, **Zainal Arifin Ahmad**. Preliminary study co-deposition of copper-tin alloys from alkaline cyanide solutions. 3rd Post Graduate research Papers 2005/2006, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, March 2006, 65-70.

90. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**. Aluminum sheet as interlayer for ceramic-metal joints via friction welding technique. 3rd Post Graduate research Papers 2005/2006, School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, March 2006, 71-75.

2005

91. Mohd Al Amin Muhamad Nor, Hazizan Md. Akil and **Zainal Arifin Ahmad**, Effect of template density on the properties of ceramic foam produced by polymer replication method, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005
92. Khairul Rafezi Ahmad, Shamsul Baharin Jamaludin, Luay Bakir Hussain, **Zainal Arifin Ahmad**, The influence of alumina particle size on sintered density and hardness of discontinuous reinforced aluminum metal matrix composite, Jurnal Teknologi, 42(A), Jun 2005,49-57
93. Shah Rizal Kasim, Tee Dee In, Hazizan Md. Akil and **Zainal Arifin Ahmad**, Effect of solid loading and sintering temperature to the physical properties and microstructures of sintered dense hydroxyapatite bodies, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005
94. Julie Juliewatty Mohamed, Hairol Abdul Rahman, **Zainal Arifin Ahmad**, The effect of CuO addition in CCTO on the dielectric properties and microstructure, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005
95. Mohd Nazree Derman, Kong Chia Wei, **Zainal Arifin Ahmad** and Nurulakmal Mohd Sharif, Study of sulphuric acid concentration on anodizing process for aluminium matrix composite reinforced with short fibre alumina SaffilTM, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005
96. Noraziana Parimin, **Zainal Arifin Ahmad**. A study of sintering time on composite of iron-chromium reinforced with 10wt% silicon carbide particles at normal atmosphere, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005
97. Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad** & Radzali Othman, Characterization of barium titanate (BT) prepared by low temperature chloride aqueous method via XRD, SEM and TEM, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005
98. Mohd Warikh Abd Rashid, Sabar Derita Hutagalung and **Zainal Arifin Ahmad**, Physical & Microstructure Studies on $\text{CaCu}_3\text{Mn}_{x-4}\text{Mn}_4\text{O}_{12}$ Compounds, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005

99. Yeoh C.K., Srimala Sreekantan, Sabar D.H., **Zainal Arifin Ahmad**, Ink jet printing of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ films, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005

100. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**. The study of speed rotation on the strength of steel-alumina friction welding, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005

101. Hasmaliza Mohamad, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad**. Effect of lactic acid on sol-gel spun alumina fibre, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005

102. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Tadashi Ariga, Luay Bakir Hussain. Joint strength and interfacial microstructure between Sn-Pb, Sn-Zn and Sn-Zn-Bi solders on Cu substrate, Proceedings of the 14th Scientific Conference Electron Microscopy Society Malaysia, 2005

103. Julie Juliewatty Mohamed, Fadzil Ain, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**, Microwave characteristics of CCTO dielectric resonators, Int. Conf. o robotics, vision, information and signal processing (ROVISP 2005), Penang, 22-22July 2005

104. Julie Juliewatty Mohamed, Fadzil Ain, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**, Preparation of CCTO by Modified Mechanical alloying. 3rd international conference on materials for advanced technology (ICMAT2005), Singapore, 3 July 2005

105. Julie Juliewatty Mohamed, Fadzil Ain, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**, The effect of compaction pressure on the CCTO formation and dielectric properties via solid state technique, 6th national seminar on neutron & x-ray scattering, BATAN, Serpong, Indonesia, 1-3 August 2005

106. Julie Juliewatty Mohamed, Fadzil Ain, Sabar Derita Hutagalung, **Zainal Arifin Ahmad**, Different sintering time on formation and dielectric properties of CCTO, 6th national seminar on neutron & x-ray scattering, BATAN, Serpong, Indonesia, 1-3 August 2005

107. Anita Hanim, Mohd Al Amin Muhamad Nor, Hazizan Md. Akil and **Zainal Arifin Ahmad**, Porous ceramic as a core material in sandwich structure construction Journal of Physical Science, 2005

108. Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad** & Radzali Othman, Impedance spectroscopy of barium strontium titanate prepared by low temperature aqueous system. Journal of Physical Science, 2005

109. Khairul Rafezi Ahmad, J.B. Shamsul, Luay Bakir Hussain, **Zainal Arifin Ahmad**, The relation of reinforcement particle size on properties of aluminum metal matrix composite reinforced with alumina particle, Jurnal Teknologi A, UTM,

110. Y.C. Keat, S.B. Jamaludin, **Zainal Arifin Ahmad**, The effect of varying process parameters on the microhardness and microstructure of Cu-steel and Al-Al₂O₃ friction joints Jurnal Teknologi A, UTM, 2005

111. Mohd Nazree Derman, Luay Bakir Hussain, **Zainal Arifin Ahmad** and Nurulakmal Mohd Sharif, The tensile properties of P/M aluminium reinforced short fibre alumina saffilTM, Malaysian Journal of Microscopy, Vol 1, 33-38, 2005

112. Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad** & Radzali Othman, Microstructure characterization of BST prepared by low temperature chloride aqueous method, Malaysian Journal of Microscopy, Vol 1, 53-58, 2005

113. Teoh Wah Tzu, **Zainal Arifin Ahmad**, Ahmad Fauzi Mohd Noor, The effect of sintering on the dielectric properties of Ba_{1-x}Sr_xTiO₃, Malaysian Journal of Microscopy, Vol 1, 59-64, 2005

114. Mohamad Zaky Noh, Yeoh C. K., **Zainal Arifin Ahmad**. Effect of interlayer thickness on alumina-steel bonding through friction welding, Malaysian Journal of Microscopy, Vol 1, 94-99, 2005

115. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Luay Bakir Hussain, Tadashi Ariga. A study on microstructure and wetting properties of eutectic Sn-Pb, Sn-Zn and Sn-Zn-Bi lead-free solders using wetting balance instrument, Malaysian Journal of Microscopy, Vol 1, 100-105, 2005

116. Mohd Al Amin Muhamad Nor, Hazizan Md. Akil and **Zainal Arifin Ahmad**. Effect of solid loading on the porous ceramic produced via polymer foam replication method, Malaysian Journal of Microscopy, Vol 1, 106-109, 2005

117. Noraziana Parimin, Mohd Al Amin Muhamad Nor, **Zainal Arifin Ahmad**, A study of sintering temperature on composite of iron-chromium reinforced with 10wt% silicon carbide, Brunei International Conference on Engineering and Technology (BICET2005), 2005

118. Mohamad Zaky Noh, Luay Bakir Hussain, **Zainal Arifin Ahmad**, Effect of friction time on the strength of alumina-steel bonding through friction welding, Brunei International Conference on Engineering and Technology (BICET2005), 2005

119. Srimala, S., Ahmad Fauzi, M.N., **Zainal Arifin, A.**, Radzali Othman. West, A. and Sinclair, D. (2006). Impedance Spectroscopy of $\text{Ba}_{0.9}\text{Sr}_{0.1}\text{TiO}_3$ Prepared by Low Temperature Aqueous Synthesis. *Journal of Physical Science*. vol 17(1) p. 35-52.

120. Srimala, S., Ahmad Fauzi, M.N., **Zainal Arifin, A.**, Radzali Othman. West, A. and Sinclair, D. (2005). Microstructure and Electrical Characterization of $\text{Ba}_{0.9}\text{Sr}_{0.1}\text{TiO}_3$ synthesised by Chloride Aqueous method. *Proceeding of 3rd Workshop on Regional Network Formation for Enhancing Research and Education on Materials Engineering and Green Energy Technologies*. 7-10th August 2005. Penang, Malaysia. P 4

121. Srimala, S., Ahmad Fauzi, M.N., **Zainal Arifin, A.** and Radzali Othman. (2004) Formation of Crystal Steps, Domain and Twin Lamella in Barium Titanate Based Materials. *Buletin Enjinier*. Jun 2005 p10-11.

122. Saidatulakmar Shmsuddin, Umar Al-Amani Hj. Azlan, Ahmad Fauzi Mohd Noor, **Zainal Arifin Ahmad**, A study on $\text{Ba}_{0.7}\text{Sr}_{0.3}\text{TiO}_3$ synthesized by solid state reaction, *J. Solid State Science and Technology Letter*, Vol 12, No. 1 (Suppl.), 10, 2005

123. Ramani Mayappan, Ahmad Badri Ismail, **Zainal Arifin Ahmad**, Luay Bakir Hussain, Tadashi Ariga. A study on microstructure and the influence of sample perimeter and dipping rate on wetting properties of Sn-Pb and Sn-Zn based lead-free solders, *Proceedings of the National conference on advances in mechanical engineering 2005 (NAME'05)*, vol 1. 265-273, 2005

124. Hazman Seli, **Zainal Arifin Ahmad**, Synthesis of (Si-based) ceramic matrix composite via polymer precursor route, *Jurnal Akademik UiTM Sarawak*, February 2005, 65-70, 2005

2004

125. Shah Rizal Kasim, Hazizan Md. Akil, **ZAINAL ARIFIN AHMAD**, *The synthesis of hydroxyapatite through the precipitation method*, The Medical Journal of Malaysia, Vol. 59, Supplement B, May 2004, 75-76
126. Yeoh Cheow Keat, Shamsul Baharin Jamaludin, **Zainal Arifin Ahmad**, *The effect of vaying process parameters on the microhardness and microstructure of Cu-steel and Al-Al₂O₃ friction joints*, Jurnal Teknologi, 41(A), Dis2004, 85-95
127. Nik Mohd Polo Kinin Nik Man, Wan Mohd Arif Wan Ibrahim, **ZAINAL ARIFIN AHMAD**, *Study on the effect of Y₂O₃ addition to the fluorescent property of dental porcelain*, The Medical Journal of Malaysia, Vol. 59, Supplement B, May 2004, 23-24
128. Jamaluddin Othman, **ZAINAL ARIFIN AHMAD**, *Study on the changing of the coefficient of thermal expansion (CTE) of dental porcelain*, The Medical Journal of Malaysia, Vol. 59, Supplement B, May 2004, 143-144
129. Y.C. Keat, S.B. Jamaludin, **ZAINAL ARIFIN AHMAD**, *The effect of varying rotational speeds on the strength of aluminum-steel, copper-steel and aluminum-alumina friction joints*, Proceedings of 4th International Materials Technology Conference (IMTCE 2004), 608-618, March 2004
130. W.T. Teoh, M.J. Abdullah, **ZAINAL ARIFIN AHMAD**, M.N.A. Fauzi, *Microstructure development and properties of Ba_{1-x}Sr_xTiO₃*, Proceedings of 4th International Materials Technology Conference (IMTCE 2004), 739-745, March 2004
131. S.Shamsuddin, B. Wanik, M.N.A. Fauzi, **ZAINAL ARIFIN AHMAD**, *X-Ray diffraction (XRD) studies on the nickel plated ceramic body*, Proceedings of 4th International Materials Technology Conference (IMTCE 2004), 710-715, March 2004
132. W.T. Teoh, M.J. Abdullah, **ZAINAL ARIFIN AHMAD**, M.N.A. Fauzi, *Microstructure development and dielectric properties of Ba_{1-x}Sr_xTiO₃*, Proceedings of 4th International Materials Technology Conference (IMTCE 2004), 739-745, March 2004
133. Hasmaliza Mohamad, **ZAINAL ARIFIN AHMAD**, Ahmad Fauzi Mohd Noor, *Preparation of alumina fibre from aluminum isopropoxide system*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

134. Julie Juliewatty Mohamed, Shamsul Baharin Jamaludin, **ZAINAL ARIFIN AHMAD**, *The Study of Raw Materials and Phase Changes of Zinc Metal Matrix Composite Reinforced SiC Particles Fabricated via Powder Metallurgy*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004.

135. Khairul Rafezi Ahmad, Shamsul Baharin Jamaludin, Luay Bakir Hussain and **ZAINAL ARIFIN AHMAD**, *Dry Sliding Wear Behavior of Alumina Particle Reinforced Aluminum Composite Synthesized Via Powder Metallurgy*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004.

136. Mohd Nazree Derman, Luay Bakir Husin, **ZAINAL ARIFIN AHMAD** and Nurulakmal Mohd Sharif, *The effect of short fibre Al₂O₃ Saffil™ reinforcement on corrosion behaviour of aluminium composite*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

137. Nik Mohd Polo Kinin Nik Man, Wan Mohd Arif Wan Ibrahim, **ZAINAL ARIFIN AHMAD**, *Effect of Y₂O₃ addition to the dental porcelain on phase analysis*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

138. Ramani Mayappan, Ahmad Badri Ismail, **ZAINAL ARIFIN AHMAD** and Luay Bakir Hussain, *A study on microstructure and wetting properties of eutectic Sn-Pb, Sn-Zn and Sn-Zn-Bi lead-free solders*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

139. Shah Rizal Kasim, Hazizan Md. Akil, **ZAINAL ARIFIN AHMAD**, *Preparation of Dense Hydroxyapatite via Gel Casting Method from Precipitated Powder: A Preliminary Study*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

140. Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **ZAINAL ARIFIN AHMAD** & Radzali Othman, *X-Ray diffraction of BST prepared by low temperature chloride aqueous method*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

141. Teoh Wah Tzu, Sunny Neoh Soon Chye, **ZAINAL ARIFIN AHMAD** and Ahmad Fauzi Mohd Noor, *Influence of Different Milling Processes on*

Ba_{0.70}Sr_{0.30}TiO₃ Formation Temperature, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

142. Yeoh Cheow Keat, Sabar Derita Hutagalung and **ZAINAL ARIFIN AHMAD**, *Study on the effect of sintering temperature and compositional variations on the formation of cordierite*, Proceedings of the International Conference on X-Rays & Related Techniques in Research and Industry (ICXRI2004), September 2004

Principal Investigator (RM3,053,706)

1. Seramik Teknologi Tinggi, IRPA, RM5, 1/1/1988-31/12/1995, RM957,120.00, KETUA PROJEK
2. Ceramic Matrix Composites Materials via Polymer Precursors Route for High Temperature Structural and Electronic Applications, IRPA, RM7, 16/1/1996-30/6/1999, RM390,000.00, KETUA PROJEK
3. Development and Performance of Ceramic-Metal Bonding to Improve Structural Material, USM Jangka Pendek, J/PENDEK, 1/11/2001-30/4/2003, RM13,271.00, KETUA PROJEK
4. Development and performance of Ceramic-Metal Bonding to Improve Structural Materials, IRPA, RM8, 1/9/2002-31/8/2005, RM211,600.00, KETUA PROJEK
5. Synthesis and Properties of Hard and Wear Resistance Materials for Industrial Application, IRPA, RM8, 1/9/2002-31/8/2005, RM99,000.00, KETUA PROJEK
6. Ceramic Foam Core Sandwich Composites for Structural Applications, Agensi Luar, Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB), 15/9/2004-16/9/2006, RM452,000.00, KETUA PROJEK
7. Development and performance of Ceramic-Metal Bonding to Improve Structural Materials, IRPA, RM8, 1/9/2002-31/8/2005, RM211,600.00, KETUA PROJEK
8. Tin Alloy Plating for Automotive and Electronic Applications. Agensi Luar, Lembaga Perusahaan Timah & Kem. Sumber Asli & Alam Sekitar, 1/12/2005-31/12/2007, RM55,016.25, KETUA PROJEK
9. Study on The Fabrication of High Wear Resistant Alumina-Zirconia-Magnesia Cutting Tools, RUI (Individual), USM (RU), 1/1/2009-31/12/2011, RM102,000.00, KETUA PROJEK
10. Effect of ZrO₂ and CaO Doped on the NiO Properties, RUI (Individual), USM (RU), 15/12/2012-14/6/2016, RM213,000.00, KETUA PROJEK
11. Formation of Structural Defect to Improve the Dielectric Properties of Calcium Copper Titanate (CCTO), Skim Geran Penyelidikan Fundamental (FRGS), Kementerian Pengajian Tinggi, 1/12/2013-31/5/2017, RM120,600.00, KETUA PROJEK

12. Preparation of Ultra Low Thermal Conductivity Rh-Glass As a Coating Material Developed From Agricultural Waste, RACE, USM (RU PUSAT), 9/7/2014-8/7/2016, RM20,000.00, KETUA PROJEK
13. High Wear Resistant Ceramic Cutting Inserts With Enhanced Toughness for High-Speed Machining, RUI (Individual), USM (RU), 15/7/2012-14/1/2016, RM208,500.00, KETUA PROJEK

National grants as Co-researcher (RM12,953,930)

1. Seramik berasaskan tanahliat, IRPA, RM5, 1/1/1988-31/12/1995, RM261,510.00, AHLI PROJEK
2. Development of a Process for the Oxidative Coupling of Methane (OCM) To Ethylene, IRPA, RM7, 1/10/1997-31/10/2002, RM534,000.00, AHLI PROJEK
3. Reformulation of a High Strength and Machineable Hydroxyapatite Advanced Ceramic Biomaterial, IRPA, RM7, 1/10/1997-31/12/2001, RM888,500.00, AHLI PROJEK
4. Development of Heat Mirror and Rear View Mirror Coatings on Glass By Sol-Gel Technique, IRPA, RM8, 1/9/2002-31/8/2005, RM120,000.00, AHLI PROJEK
5. Processing Of Ultrafine Barium Strontium Titanate ($Ba_{1-x}Sr_xTiO_3$) By Mechanical Action Technique., IRPA, RM8 - KATEGORI EA, 1/11/2003-31/10/2006, RM260,080.00, AHLI PROJEK
6. Analysis of the Interactive Properties of Self-illuminating Nanoscale Zinc Selenide/Zinc Quantum Dots With Protein and Cells, Skim Geran Penyelidikan Fundamental (FRGS), FRGS, 1/11/2006-31/10/2009, RM90,000.00, AHLI PROJEK
7. Theoretical and Conceptual Investigations of Electromagnetic Gears, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 15/10/2007-15/10/2009, RM80,000.00, AHLI PROJEK
8. Advanced Materials for Industrial Applications, RUI (Individual), USM (RU), 10/10/2007-29/3/2011, RM923,100.00, AHLI PROJEK
9. Biomaterial Dental Application of Biphasic Calcium Phosphate (BCP), RUI (Individual), USM (RU), 10/10/2007-9/3/2011, RM241,400.00, AHLI PROJEK
10. Hydroxyapatite and Carbonate Apatite Synthesized by Mechanical Activation for Possible Use as Smart Biomaterials, ScienceFund, KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI, 1/10/2007-31/3/2010, RM225,000.00, AHLI PROJEK
11. Surface Modified Buffer Layer for Superconductors Growth Template, ScienceFund, KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI, 1/8/2007-31/7/2009, RM296,370.00, AHLI PROJEK
12. Development and Production of Reformulated Calcium Phosphates for Bone Graft Substitutes [REKACRAF], Agensi Luar, MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION [MTDC], 15/3/2008-14/3/2012, RM5,182,990.00, AHLI PROJEK
13. Development of SHS for Boride and Carbide Intermetallic Compound Formation, ScienceFund, KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI, 1/8/2009-30/9/2011, RM85,000.00, AHLI PROJEK

14. Universiti Sains Malaysia [USM] And The Accelerated Programme For Excellence [APEX] Experience, 2008-2014, RUI (Individual), USM (RU), 15/4/2009-14/2/2011, RM175,545.58, AHLI PROJEK
15. Oxygen Consumption in Gel Polymer Electrolytes Based Alkaline Fuel Cells, RUI (Individual), USM (RU), 15/1/2009-14/1/2012, RM102,100.00, AHLI PROJEK
16. Development of Susceptor Materials to Improve Microwave Energy Absorption on the $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Electroceramics Processing, ScienceFund, KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI, 1/1/2009- 31/12/2010, RM190,000.00, AHLI PROJEK
17. Study on Rate Sensitivity of Polymers and Composites Using Split Hopkinson Pressure Bar Apparatus [SHPBA], RUI (Individual), USM (RU), 1/1/2009-31/12/2011, RM80,600.00, AHLI PROJEK
18. In-situ synthesis of α -cordierite using Talc, kaolin and dolomite through glass route, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/5/2010- 30/4/2012, RM27,000.00, AHLI PROJEK
19. Investigation on the Coupling effect of the dielectric resonator antenna array, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/5/2010-30/4/2012, RM40,000.00, AHLI PROJEK
20. Formation of Nanotubular TiO_2 Bioactive oxide layer on titanium and cell response studies, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/5/2010-30/4/2012, RM24,000.00, AHLI PROJ
21. Production of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ (CCTO) Electronicceramics via plasma spray method, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/5/2010-30/4/2012, RM40,000.00, AHLI PROJEK
22. In-Process Roughness Measurement and Tool Wear Assessment in Turning Using Machine Vision , RUI (Individual), USM (RU), 1/5/2010-30/4/2014, RM 232,000.00, AHLI PROJEK
23. Electroceramic for Microwave Applications, RUT (Berpasukan), USM (RU), 1/12/2011-30/11/2016, RM917,956.00, AHLI PROJEK
24. Prototype Development of Porous Medium Burner for Household Applications, Skim Geran Penyelidikan Prototaip (PRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/11/2011-31/10/2013, RM142,000.00, AHLI PROJEK
25. Design of Ka Band Microwave Link Testbed, RUI (Individual), USM (RU), 15/3/2011-14/3/2014, RM249,735.00, AHLI PROJEK
26. Synthesis and Characterization of Pure and Ce Doped PZT for Piezo Motor Application, Skim Geran Penyelidikan Eksploratori (ERGS), KEMENTERIAN PENGAJIAN TINGGI, 1/8/2012-31/7/2015, RM71,000.00, AHLI PROJEK
27. First Principles Density Functional Theory Calculations on Zinc Oxide Growth Mechanism, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/12/2013-30/11/2015, RM148,000.00, AHLI PROJEK
28. Development Of Green Palm Oil Fuel Ash-Based Geopolymer Mortar For Superior Performance in Aggressive Environments, RUI (Individual), USM (RU), 1/12/2013-31/12/2017, RM201,979.00, AHLI PROJEK
29. Statistical Variability Based Modeling of Split-Ring Resonator Design in Microwave Engineering, RUI (Individual), USM (RU), 1/12/2013- 30/11/2016, RM183,600.00, AHLI PROJEK

30. Microdialysis Probes for Sampling and Continuous Monitoring of Tissue Function in Three-Dimensional Engineered Tissues: Mass Transport Phenomena In Short Concentric Probes For Recovery of Larger Molecules, RUI (Individual), USM (RU), 15/12/2012-14/6/2015, RM161,100.00, AHLI PROJEK
31. Mechanism of Mineral and Oxides-Based 3D Cordierite Template, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/12/2014-30/11/2017, RM130,000.00, AHLI PROJEK
32. Fundamental Study on Dissolution-Precipitation Mechanism of Calcium Phosphate Materials, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/12/2014-31/5/2018, RM125,000.00, AHLI PROJEK
33. Grain Growth Control Mechanism of Lead Zirconate Titanate Electroceramic by doping La^{3+} and Sr^{2+} , Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/7/2014-31/12/2017, RM130,800.00, AHLI PROJEK
34. Investigation on the durability, growth mechanism and bonding interactions of super-hydrophobic surfaces made from waste materials, Skim Geran Penyelidikan Fundamental (FRGS), KEMENTERIAN PENGAJIAN TINGGI, 2/11/2015- 1/11/2017, RM132,200.00, AHLI PROJEK
35. Disaster Relief and Preparedness: A Smart 48V Hybrid Solar and Diesel Generator For Telecommunication Base Transceiver Station, Skim Geran Penyelidikan Prototaip (PRGS), KEMENTERIAN PENGAJIAN TINGGI, 1/4/2015-30/4/2016, RM80,000.00, AHLI PROJEK
36. Wireless Antenna for 5G Applications, RUI (Individual), USM (RU), 1/4/2017-31/3/2019, RM93,700.00, AHLI PROJEK
37. Nutrient Transport, Waste Transfer and Shear Stress Analysis through Computational Modelling in Engineered Bone Tissue Constructs and its Surroundings, RUI (Individual), USM (RU), 1/3/2017-28/2/2019, RM87,665.00, AHLI PROJEK
38. Nutrient Transport, Waste Transfer and Shear Stress Analysis through Computational Modelling in Engineered Bone Tissue Constructs and its Surroundings, (RUI) Individu [RM87,665.00, 01/03/2017-28/02/2019](#)
39. [Wireless Antenna for 5G Applications , RM93,700.00, 01/04/2017-31/03/2019](#)

International Grants as Co-Researcher (RM127,292)

1. Preparation and Characterization of High-K Dielectric Materials of CCTO by Using Microwave Processing Technique, Agensi Luar, NIPPON SHEET GLASS FOUNDATION, JAPAN, 1/3/2006-30/6/2008, RM26,110.00, AHLI PROJEK
2. A Study on the Behavior of Three Kinds Silica such as Waste Glass Powder, Ground Silica Sand and Silica Fume in Concrete Performance, Agensi Luar, AUN / SEED - NET, 1/12/2007-15/3/2011, RM56,468.58, AHLI PROJEK
3. Fabrication of WC/Stainless Steel Hard Metals System by Mechanical Alloying and its Characterization, Agensi Luar, AUN / SEED - NET, 1/10/2009-15/3/2014, RM44,714.46, AHLI PROJEK

Short Term Grants as Co-Researcher (RM526,117)

1. Advanced Ceramics in Gas-Sensing Technology, USM Jangka Pendek, USM, 1/6/1986-31/5/1988, RM9,000.00, AHLI PROJEK
2. Structural Intermetallics (Ti 3A1, Ti A1, NiA1 and Related Materials)., USM Jangka Pendek, USM, 1/12/1993-30/11/1995, RM19,932.00, AHLI PROJEK
3. Reformulasi Seramik Tembikar Putih (Reformulation of Whiteware Ceramic)., USM Jangka Pendek, USM, 1/12/1995-31/5/1998, RM7,850.00, AHLI PROJEK
4. Advanced Polymer Composites. USM Jangka Pendek, USM, 1/8/1995-31/7/1997, RM15,000.00, AHLI PROJEK
5. Production of Alumina Fibres for Thermal Insulation., IRPA Jangka Pendek, IRPA J/P, 1/9/1998-31/8/1999, RM9,800.00, AHLI PROJEK
6. Bahan Katod Termaju Voltan Tinggi (4V) untuk Bateri Ion-Litium 'Boleh-Cas-Semula'., IRPA Jangka Pendek, IRPA J/P, 1/8/1998-31/1/2000, RM7,950.00, AHLI PROJEK
7. Production of Precipitated Calcium Carbonate (PCC) from Various Limestone Deposits and Industrial Wastes, USM Jangka Pendek, J/PENDEK, 15/3/2002- 14/7/2003, RM19,060.00, AHLI PROJEK
8. Properties of Foam-Based Sandwich Structure with Alumina Fibre-Reinforced Epoxy Skin, USM Jangka Pendek, USM JANGKA PENDEK, 1/1/2003- 31/12/2004, RM19,571.00, AHLI PROJEK
9. In Vivo Evaluation of Locally Produced Dental Porcelain, USM Jangka Pendek, USM JANGKA PENDEK, 1/7/2007-30/6/2010, RM6,301.00, AHLI PROJEK
10. Studies of Self-Organised Nanotubes Array of TiO₂ by Anodisation, USM Jangka Pendek, USM JANGKA PENDEK, 15/3/2007-14/3/2009, RM 14,418.00, AHLI PROJEK
11. In Vitro Cytotoxicity Evaluation of Locally Produced Dental Porcelain, USM Jangka Pendek, USM JANGKA PENDEK, 15/3/2007-14/3/2010, RM18,803.00, AHLI PROJEK
12. Synthesis and Electrical Microstructure Modeling of Barium Strontium Titanate (BST), USM Jangka Pendek, USM JANGKA PENDEK, 15/4/2008-14/10/2010, RM36,238.00, AHLI PROJEK
13. Design and Machining Performance of a New Ceramic Cutting Tool in CNC Machine, USM Jangka Pendek, USM JANGKA PENDEK, 1/8/2009-31/7/2011, RM36,350.00, AHLI PROJEK
14. A Study on the Effect of Different Doped Element on CaCu₃Ti₄O₁₂ (CCTO) Properties, USM Jangka Pendek, USM JANGKA PENDEK, 1/2/2009-31/1/2011, RM35,672.00, AHLI PROJEK
15. Synthesis and Characterization of Pb(Zr_{0.52}Ti_{0.48})O₃ (PZT) Via Solid State Reaction, USM Jangka Pendek, USM (JANGKA PENDEK), 1/6/2010-30/11/2012, RM36,014.00, AHLI PROJEK
16. Powder Metallurgy of Transition Metal Carbide with Stainless Steel AISI 347 Binder, USM Jangka Pendek, USM (JANGKA PENDEK), 15/5/2011, 14/5/2013, 39,621.00, 39,621.00, AHLI PROJEK
17. Synthesis of Titanium Aluminium Carbide (TAC) Via Self-Propagating High Temperature Synthesis (SHS) Through Arc Melting, USM Jangka Pendek, USM (JANGKA PENDEK), 15/6/2012-14/3/2015, RM39,821.00, AHLI PROJEK

18. Study on the Engineering Properties of Brick Containing Sewage Sludge Waste at the Coastline Area, USM Jangka Pendek, USM (JANGKA PENDEK), 15/11/2013-14/11/2014, RM27,361.00, AHLI PROJEK
19. A Study of The Machining Capabilities of Ceramic Cutting Tool Bits Produced by Friction Welding, USM Jangka Pendek, USM JANGKA PENDEK, 1/9/2007-31/8/2009, RM31,336.00, AHLI PROJEK
20. Wound Healing in Critical Sized Mandibular Bone Defect Using Locally - Produced Biphasic Calcium Phosphate Graft with Vascular Endothelial Growth Factor in a Rabbit Model, USM Jangka Pendek, USM (JANGKA PENDEK), 15/9/2014-14/9/2016, RM45,000.00, AHLI PROJEK
21. Angiogenesis and Osteogenesis Gene Expressions of Endothelial Cell Lines Seeded on Biphasic Calcium Phosphate (BCP) Scaffold with Vascular Endothelial Growth Factor (VEGF), USM Jangka Pendek, USM (JANGKA PENDEK), 15/3/2014-14/3/2016, RM40,000.00, AHLI PROJEK
22. Study on the Usage of Fiber Reinforce Polymer as Repair Material for Damage Wall Structure Built from Different Types of Fired Clay Brick, USM Jangka Pendek, USM (JANGKA PENDEK), 1/2/2016-31/1/2018, RM42,355.40, AHLI PROJEK

List of graduated PhD students (research mode)

Graduated PhD students

1. NOR FATIN KHAIRAH BINTI BAHANURDDIN (*P-GD0004/16(R)*), *PhD, Potassium Sodium Niobate Formulation and Cold Isostatic Process for Improve Piezoelectric Properties*
2. ABDUALLAH MUFTAH MENSHAZ (*P-WD0015/16(R)*), *PhD (Libya), Evaluation of Performance of Alkali Activated Mortars Synthesized from ternary blends of Ultrafine Palm Oil Fuel Ash, Ground Granulated Blast-Furnace Slag and Metakaolin*
3. AYUB AHMED JANVEKAR (*P-GD0002/15(R)*), *PhD (India), Performance Characterization of Micro Porous Media Burner for Heat or Power Generation*
4. RASHIDAH BINTI CHE YOB (*P-GD0022/15(R)*), *PhD, Dielectric Resonator Matching Model for Stability Performances of Microwave Amplifier*
5. ROSYAINI BINTI AFINDI ZAMAN (*P-GD0028/13(R)*), *PhD, Synthesize and characterization of Al_2O_3 -, $BaTiO_3$ -, TiO_2 -, CuO -CCTO composites for wideband dielectric resonator application*
6. KHO CHUN MIN, *P-GD0015/13(R)*, *Development of Transport Phenomena Mathematical Models for Linear and Concentric Microdialysis Probes with Diffusion-Limited and Convection- Enhanced Operational Features*
7. NORFANIZA MOKHTAR, *P-WD0019/13(R)*, *Effect of Microbial Activity of Immobilized Bacillus Sphaericus on Properties of Portland Cement Mortar Exposed To Different Curing Medi*

8. *HIDAYANI JAAFAR, P-GD0012/16(R), Dye-Sensitized Solar Cell (DSSC) Photovoltaic Properties Enhancement using E. Conferta Sensitizer Through Modification of Nb-Doped TiO₂ Photoanode and CB-TiO₂ Composite Counter Electrode*
9. *MOHAMAD ROHAIDZAT MOHAMED RASHID (PhD)(P-GD0009/14(R), Synthesis and Evaluation of Geopolymer Properties using Sago Pith Waste Ash*
10. *MOHAMAD JOHARI ABU (PhD)(P-GD0002/13(R), Investigation on Sub solidus Phase Relationship and CaCu₃Ti₄O₁₂ Solid Solution in the Selected Area of CaO-CuO-TiO₂ Ternary System*
11. *CHIN CHEE LUNG (P-GD0022/15(R)), PhD, Optimization of Physical and Thermal Properties of Construction Materials Based on Their Mineralogy*
12. *SALAMI BABATUNDE ABIODUN (P-WD0021/14(R)), Mechanical properties and durability performance of POFA-based engineered alkali-activated cementitious composites (NIGERIA)*
13. *OTMAN MOSBAH MOHAMED ELBASIR (P-WD0016/14(R)), PhD, Characterization and Performance Evaluation of Alkaline Activated Mortars Synthesized from Binary and Ternary Blends of Palm Oil Fuel Ash, Ground Granulated Blast Furnace Slag and Fly Ash (LIBYA)*
14. *IHSAN BIN AHMAD ZUBIR (P-LD0001/13(R)), PhD, Wideband Dielectric Feeder for Ka-Band Parabolic Antenna*
15. *MOHSEN AHMADIPOUR (P-GD0020/14(R)), PhD, Fabrication, Characterisation and Humidity Sensing Property of Radio Frequency Magnetron Sputtered Calcium Copper Titanate (CCTO) Thin Film (IRAN)*
16. *AHMED OMRAN SALEM ALHAREB (P-GD0025/13(R)), Enhancement of PMMA Denture Base Properties through Combination of NBR and Ceramic Particles as Fillers (LIBYA)*
17. *MOHD FARIZ AB RAHMAN (PhD) (P-GD0010/14(R), Modification of CaCu₃Ti₄O₁₂ (CCTO) dielectric properties by addition of various types of glasses for dielectric resonator antenna (DRA) application*
18. *ZHWAN DILSHAD IBRAHIM SKTANI (P-GD0016/12(R)), Fracture toughness enhancement of zirconia toughened alumina (ZTA) through additions of combination of CaCO₃ and CaO (IRAQ)*
19. *SAAD OMAR ALSHARIF (P-GD0181) Fabrication and evaluation of dental resin composites developed from Bis-GMA/TEGDMA with treated ceramic fillers (LIBYA)*
20. *ASAM M.A. ABUDALAZEZ (P-GD0126), electrophoretic deposition of ceramic coatings on dental implant (LIBYA)*
21. *BUN KIM NGUN (P-GD0118), Characterization of Cambodian clays and their suitability for ceramic tiles application (CAMBODIA)*

22. TULUS IKHSAN NASUTION (P-GD0146), Chitosan based acetone sensor for detecting low concentration acetone (INDONESIA)
23. ABDUL RASHID BIN JAMALUDIN (P-GD0013/12R), Development of high performance porcelain and alumina foam structure for porous medium burner
24. AFIFAH BINTI MOHD ALI (P-GD0009/13(R)), Wear resistance performance of zirconia toughened alumina (ZTA) cutting tool added with MgO and CeO₂
25. SHARMIWATI BINTI MOHAMMED SHARIF (P-GD0137), Fabrication of porous ceramic foam as catalyst support for hydrotalcite in the production of fatty acid methyl esters (FAME)
26. NIK AKMAR BIN REJAB (P-GD0169), Toughness improvement of zirconia toughened alumina (ZTA) through the addition of CeO₂ and MgO
27. WAN FAHMIN FAIZ BIN WAN ALI (P-GD0178), Response surface method optimization for the formation of yttrium iron garnet and its kinetic studies for dielectric resonator antenna application made by solid state sintering
28. AHMAD ZAHIRANI BIN AHMAD AZHAR (P-GD0124), Synthesis and characterization of MgO-Cr₂O₃ZTA cutting tool material
29. SAIDATULAKMAR BINTI SHAMSUDDIN (P-GD0080), Study on the effect of alumina reinforcements on Fe-Cr matrix composites
30. NUR AZAM BIN BADARULZAMAN (P-GD0066), The influence of agitation and silicon carbide particle concentration as reinforcement on the properties of the nickel matrix composite coating
31. HAZMAN BIN SELI (P-GD0090), Modelling of the friction welding process between mild steel and alumina
32. BANJURAIZAH BINTI JOHAR (P-GD0094), The synthesis of non-stoichiometric cordierite via glass ceramic route using calcined talc and kaolin
33. MOHD AL AMIN BIN MUHAMAD NOR (P- GD0062), Preparation, characterization and properties of porous porcelain produced via polymeric foam replication method and its potential as core material
34. KHAIREL RAFEZI BIN AHMAD (P-GD0015), The Fabrication and Characterisation of Pure Aluminium Composite/Alumina Particle via Powder Metallurgy
35. MOHD WARIKH ABD RASHID, Optimization Of Calcination And Sintering Process To Produce Calcium Copper Manganese Oxide (CaCu₃Mn₄O₁₂) Through Solid State Reaction Technique
36. SHAH RIZAL KASIM, Synthesis of β -TCP via Wet Method and Fabrication and Characterization of β -TCP/CPP Composite

37. YEOH CHEOW KEAT, Synthesis and Characterization of Barium Titanium Oxide (BaTiO_3) and Calcium Copper Titanium Oxide ($\text{CaCu}_3\text{Ti}_4\text{O}_{12}$) Pellets and Thin Films
38. MOHAMAD ZAKY NOH, Studies on the Performance of Mild Steel-Alumina Joining Fabricated Via Friction Welding
39. JULIE JULIEWATTY MOHAMED, A Study on The Effect of Different Microstructure on Dielectric Properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$
40. LEE WOON KIW (P-CD0010/13(R)), In-Process Detection of Chipping in Ceramic Cutting Inserts from Workpiece Profile Signature During Turning Using Machine Vision
41. UBAID ULLAH (P-LD0008/13(R)), Study of inhomogeneous dielectric resonators for linearly/circularly polarized wideband antenna applications (PAKISTAN)
42. ALI ARAB (P-CD0004/12R), Experimental and neural network prediction of dynamic behavior of ZTA with SrCO_3 and MgO (IRAN)
43. TEGUH DARSONO (P-GD0067), Study of electron transport on gold nanodot-silicon interface grown by scanning probe microscope (SPM) (INDONESIA)
44. SEYI STEPHEN OLOKEDE (P-LD0177), Design of a quasi-lumped element resonator antenna with magnetic coupling feeding (NIGERIA)
45. ALI BIN OTHMAN (P-LD0087), Band with enhancement of pyramidal horn antenna using dielectric resonator feeder
46. SIVA BALAN A/L RUKUMANGATHA RAJAH (S-ID0005/07R), characterization and properties of selected biomass carbon nanofiller reinforced advanced ceramic composites
47. AHMAD ASARI BIN SULAIMAN (P-LD0098), Development of microwave bandpass filter using defected ground structure in comparison with multilayer and dielectric resonator filters
48. YAZEED (MOHAMMAD AKRAM) IBRAHIM QASAYMEH (P-LD0141), Design and modeling of dielectric resonator antenna array using new feeding method over a short ended microstrip (JORDAN)
49. TRAN BAO TRUNG (P-GD0132), Effect of graphite and NbC on mechanical properties of AISI304 binded WC (VIETNAM)
50. AMERA KHALIL MOHAMMED .A (P-SGD0002/08R), Osteopromotion of mandibular distraction osteogenesis using stem cells from human deciduous teeth and in biphasic calcium phosphate scaffold in rabbit model (IRAQ)
51. SYAHRIZA BINTI ISMAIL (P-GD0112), Formation of nanotubular oxide by anodization of valve metals

52. MUHAMMAD AZWADI BIN SULAIMAN (P-GD0143), Effect of electrode materials on electrical properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ at frequencies of 100 Hz-1GHz
53. FARHAD B. BAHAAIDEEN (P-CD0049), Synthesis of electroless Ni-P-Cg (Graphite)-SiC composite coating on piston rings of a small two stroke utility engine (IRAQ)
54. CHEA CHANDARA (P-GD0103), Study on pozzolanic reaction and fluidity of blended cement containing treated palm oil fuel ash as mineral admixture (CAMBODIA)
55. MORUF OLALEKAN YUSUF (P-WD0026/12R), Synthesis of Alkaline Activated Binder for Mortar and Concrete Using Binary Blending of Ground Steel Slag and Palm Oil Fuel Ash (NIGERIA)
56. MUSTAFA JUMA A. MIJARSH (P-WD0168), Palm Oil Fuel Ash-Based Geopolymer Mortar: Synthesis and Evaluation of Performance (LIBYA)
57. MOHD AZMAN BIN ZAKARIYA (P-LD0067), Empirical Model Based Slot Tuning for 5 to 6 GHz Directional Cylindrical Dielectric Resonator Antenna
58. MOHAMADARIFF BIN OTHMAN (P-LD0171), Analysis of Yttrium Iron Garnet (YIG) Resonator with Excess Fe_2O_3 for Wideband Antenna Applications
59. IZWAN BIN JOHARI (P-WD0045), The Influence of Rice Husk as Partial Replacement Material in Fired Clay Brick
60. RAMANI MAYAPPAN, Study on the Wetting Properties, Interfacial Reactions and Mechanical Properties of Sn-Zn and Sn-Zn-Bi Solders on Copper Metallization
61. MOHD NAZREE DERMAN, Fabrication and Anodising of Aluminium Matrix Composite Made from Flaky Aluminium Powder and Short Fibre Saffil™ Alumina
62. SRIMALA SREEKANTAN, Characterisation of Barium Titanate and Barium Strontium Titanate Prepared by a Low Temperature Chloride Aqueous Method
63. HASMALIZA MOHAMAD, Fabrication of Al_2O_3 fibres via Isopropoxide Sol-Gel Technique
64. TEOH WAH TZU, Lower Processing Temperature and Improved Properties of $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$ by Mechanical Activation Technique
65. CHAN WAI HOONG (1340410906), Development and characterization of porous local clay-fly ash composites (Co- supervisor – candidate from UniMAP)
66. HASSAN USMAN JAMO, Substitution of Quartz by Rice Husk Ash (RHA) in Porcelain Composition (Co- supervisor – candidate from UTHM) (NIGERIA)

67. FATHIE A.M. KUNDIE, Physico-mechanical and aging properties of denture base poly (methacrylate) filled with alumina micro- and nanoparticles (Co-supervisor – candidate from UKM) (LIBYA)
68. SITI SANIAH BINTI AB. KARIM, Fabrication and properties of epoxy/CCTO and silicone rubber/CCTO composites (Co- supervisor – candidate from UMK)

List of graduated Master students (research mode)

Graduated MSc students (Research Mode)

1. MUHAMMAD BALYAN (P-GM0010/18(R)), MSc, *Electricity Harvesting from Water Vapour Using Chitosan Film*
2. KAUSAR BT HARUN (MSc (P-GM0006/14(R))), First Principle Calculation of Zinc Oxide Nanoparticles
3. MALIHA SIDDIQUI (P-GM0017/15(R)), Effect of Li_2CO_3 Addition on the Piezoelectric and Dielectric Properties of $\text{Pb}_{0.93}\text{La}_{0.02}\text{Sr}_{0.05}(\text{Zr}_{0.52}\text{Ti}_{0.48})\text{O}_3$ Ceramics (PAKISTAN)
4. HAMDAN BIN YAHYA (P-GM0005/14(R)), Formulation and characterization of porcelain balls from Malaysian clays.
5. NOR SUHAIDA BINTI SHAHABUDIN (P-GM0005/13(R)), Optimization and Biocompatibility of Alumina Foam Coated Scaffold for Bone Tissue Engineering Application
6. NURUL NADIA BINTI MOHD SALIM (P-GM0010/14(R)), The Effect of Sr and Sm Dopants on the Dielectric Properties of NiO
7. WAN RUZAINI BIN WAN SULAIMAN (S-GM0493), Effect of Stand-Off Distance and Plasma Current on the Properties of Hydroxyapatite Coatings Produced by Plasma Spray
8. NOR FATIN KHAIRAH BINTI BAHANURDDIN (P-GM0018/13R), Improving Dielectric and Piezoelectric Properties of PZT by Optimizing La_2O_3 , SrCO_3 Dopant Concentration, Compaction Pressure and Sintering Parameters
9. ABDUL RASHID BIN JAMALUDIN (P-GM0433), The Effects of CaCO_3 Addition on the Properties of ZnO Crystal Glaze
10. HOAIDA K SALEM SHAWI (P-GM0394), Study on the effects of cordierite powder as a filler in poly(methyl methacrylate) dental base (LIBYA)
11. AHMED OMRAN SALEM ALHAREB (P-GM0383), Characterization of Denture Base Poly (Methyl Methacrylate) Reinforced with Alumina/Zirconia Particles (LIBYA)

12. MOHD NAZRI BIN IDRIS (S-GM0228), Production of Rubber Seed Coat Based Activated Carbon As Absorbent for Dyes Removal
13. HIDAYANI BINTI JAAFAR (P-GM0387), Effect of CaO, CuO and V₂O₅ on Barium Zinc Tantalate (BZT) Dielectric Properties
14. NIK AKMAR BIN REJAB (P-GM0299), Synthesis and Characterization of Nd Doped BaTiO₃ as Dielectric Resonator Antenna (DRA)
15. ASAM M.A. ABUDALAZEZ (P-GM0269), Preparation and characterization of opaque dental porcelain powder as a filler in Denture base poly(methyl methacrylate) (LIBYA)
16. BUN KIM NGUN (P-GM0248) – Study on the properties of the concrete using different composition of blended cements (CAMBODIA)
17. FATHIE A.M. KUNDIE - Physical, mechanical and biological evaluation of locally produced dental porcelain (LIBYA)
18. YEOH CHEOW KEAT. Evaluation of the properties of friction welds between metal to metal (Cu-Steel and Al-Steel) and ceramic to metal (Al₂O₃ - Al)
19. JULIE JULIEWATTY MOHAMED. Preparation and fabrication of Zn matrix composite reinforced with SiC particle via powder metallurgy method
20. MUHD IDRIS LUTFI. Comparison of properties of electrical porcelain produced using imported and local raw materials (INDONESIA)
21. MOHD ZULKEFLI SELAMAT. The effect of mixing techniques and calcination of the raw materials on the properties of ZnO Varistor
22. CHANG KAM WAH. Effect of dry milling and water soaking on bulk density of granulated ferrite powders.
23. JAAFAR ABDULLAH. Study on bone china formulation using local silspar and sericite.
24. LIM SENG SHIN (S-LM0299), Design of Array Dielectric Resonator Antenna for Long Term Evolution Applications
25. SHARIFAH AISHAH BINTI SYED SALIM (P-GM0481), NiO Modification Using Zr⁴⁺ and Ca²⁺ for Dielectric Improvement
26. UBAID ULLAH (P-LM0499), Broadband Dual-Segment Rectangular Dielectric Resonator Antenna For 5.8 GHz Applications (PAKISTAN)
27. MOHAMAD JOHARI BIN ABU (P-GM0460), Formation Of Titanium Silicon Carbide With Excess Silicon Using Arc Melting
28. MARWA LIWA KH ALFARIS (P-GM0353), Synthesis and Characterization of Molybdenum Disilicide Through Mechanical Activation (JORDAN)

29. MOHD NOR HAKIM BIN HASSAN (P-CM0250), Study on the Development of Ceramic Cutting Tools (ZTA/ZTAMgO) and its Machining Performance in Slot Milling
30. LIM SHU LEE (P-GM0322), Formation of Ceria Buffer Layer for YBa₂Cu₃O_{7-x} Superconductors
31. JEREMY KOH CHEE HAO (P-GM0333), Synthesis of TiO₂ Nanotube Arrays and Preparation of Agar Based Gel Polymer Electrolyte for Dye-Sensitized Solar Cell
32. NUR SHAFIZA AFZAN BT SHARIF (P-GM0332), Effect of Lanthanum Oxide (La₂O₃) Addition on the Properties of Calcium Copper Titanate (CaCu₃Ti₄O₁₂)
33. ALIYAH BINTI JAMALUDIN (P-GM0315), The Study on the Performance and Compatibility of Sago As Gel Polymer Electrolyte in Direct Borohydride Fuel Cell
34. MUKRIDZ BIN MD MOHTAR (P-CM0310), Effect of Electroless Plating on Wear and Surface Friction of AISi Cylinder Liner
35. NORFADHILAH BINTI IBRAHIM (P-GM0441), Effect of Dolomite And Pure Oxides on the α -Cordierite Synthesis
36. AFFAN A. BABA, Equivalent lumped-element circuit of aperture and mutually coupled cylindrical dielectric resonator antenna (candidate from UTP) (PAKISTAN)
37. MOHAMADARIFF BIN OTHMAN (P-LM0316), Design of Dielectric Resonator Antenna For Wireless Communication.
38. CHEA CHANDARA – Effect of waste gypsum from ceramic slip casting mould on the properties of Portland cement (CAMBODIA)
39. MOHD AL-AMIN MOHD NOR. Preparation and characterization of porous hydroxyapatite produced by gel casting of foam
40. SRIMALA a/p SREEKANTAN. Effects of SrO and CaO addition on the characteristic and behaviour of zirconia ceramics.
41. NUR AZAM BADARULZAMAN. Synthesis of polymer precursors for production silicon carbide ceramics.
42. HAZMAN SELI. Effect of microstructure to the properties of calcium phosphate composite systems.
43. NORHAYATI AHMAD. Influence of residual alumina on the mechanical properties of zirconia toughened mullite ceramic composite.
44. *TUAN NUR IZZAH BINTI TUAN AB RASHID (P-GM0015/16(R)), Master(Research), Lead Zirconate Titanate (PZT) Doped Produced via Solid State Reaction Method (waiting for viva voce)*

Number of graduated Master Students (mixed mode with at least 70% research)

Graduated MSc (mix-mode)

1. ZUHAILAWATI HUSSAIN, (Studies of cause of non-uniform electrical properties of ZnO varistors) 1998
2. HASMALIZA MOHAMAD, (Water soluble polymer used in the ceramic injection moulding system) 1998
3. SAIDATULAKMAAR BT SHAMSUDDIN, (Nickel electroplating on the clay-based ceramic bodies), 1999
4. MOHD WARIKH ABD. RASHID, (Comparison of various method on producing dental procelain) 2001
5. KHALED S.A. ALZAWAI, (Effect of first firing temperature on physical, chemical and mechanical properties of dental porcelain), 2003 (LIBYA)
6. SHAH RIZAL KASIM, Study on the effect of various oxides on the locally made dental porcelain, 2003
7. BANJURAIZAH JOHAR, Study on the properties of polypropylene filled alumina powder composites, 2003
8. NORAZIANA PARIMIN, Study on the formation of cordierite from the pure oxides – 2004
9. ZURAIDAWANI DAUT, CMC using carbon from palm fibre as reinforcement particulate – September 2004
10. MOHD SYAHRIL MOHD SHARIFUDDIN, Microwave assisted processing of Zr-doped $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ electroceramics – May 2007
11. AHMAD ZAHIRANI AHMAD AZHAR – Effect of binder amount and composition ratio on the mechanical properties and wear of $\text{Al}_2\text{O}_3/\text{YSZ}$ system cutting tool - 2008
12. WAN FAHMIN FAIZ WAN ALI – Synthesis and Characterization of High Dielectric $\text{Ba}_{1-x}\text{Nd}_x\text{TiO}$ ($x=0.07$) film for dielectric resonator antenna applications - 2010
13. NORLAILATULLAILI MARZUKI – Effect of aluminium (Al) and nickel (Ni) addition on formation of titanium silicon carbide (Ti_3SiC_2) via arc melting - 2011
14. ZURATUL AIN ABDUL HAMID (Reinforcement of particle calcium carbonate filled natural rubber composites) -2011

15. SURIA HALIM, Development of light weight fired clay brick containing banana trunk fiber – May 2007 (School of Civil Engineering, USM- co-supervisor).
16. MUHAMMAD AZWADI SULAIMAN – Effect of Niobium Oxide (Nb_2O_5) Addition On The Properties of Calcium Cupro Titanate ($\text{CaCu}_3\text{Ti}_4\text{O}_{12}$) – 2010
17. SALWA ISMAIL – Fabrication and characterization of geopolymer mortars with silica fillers – 2016
18. NURHUDA MARZUKI – Synthesis and characterization of CCTO/ CuO laminated layers of high dielectric constant - 2016

Patent

1. Malaysian patent no. MY-155167-A (Application no PI 2010006351). Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Sabar Derita Hutagalung, Yazid Mohamad Akram, Mohd Azman Zakariyya, Mohamad Ariff Othman, HIGH GAIN DIELECTRIC RESONATOR ANTENNA ARRAYS FOR 5.8 GHZ APPLICATIONS, **Date of publication and grant: 15 September 2015.**
2. Malaysian patent no. MY-157270-A (Application no PI 2010004009). Srimala Sreekantan, **Zainal Arifin Ahmad**, Zainovia Lockman, Roshaslyza Hazan, Khairul Arifah Saharudin, Lai Chin Wei, AN APPARATUS AND METHOD FOR RAPID RATE OF TITANIUM DIOXIDE (TiO_2) NANOTUBES ARRAYS FORMATION, **Date of publication and grant: 31 May 2016.**
3. Malaysian patent no. MY-158139-A (Application no PI 2010006353). **Zainal Arifin Ahmad**, Mani Maran Ratnam, Hasmaliza Mohamad, Ahmad Zahirani Ahmad Azhar, ZIRCONIA-TOUGHENED-ALUMINA CERAMIC CUTTING INSERTS WITH THE ADDITION OF NANO-PARTICLE METAL OXIDES AS ADDITIVES, **Date of publication and grant: 15 September 2016.**
4. Malaysian patent no. MY-158714-A (Application no PI 2011003790). Mohd Fadzil Ain, **Zainal Arifin Ahmad**, Mohamad Ariff Othman, Yazid Mohamad Akram, Nazirul Izzat Mohd, WIDEBAND DIELECTRIC RESONATOR ANTENNA, **Date of publication and grant: 15 November 2016**

Position/Programme/Activity, Duration (Level)

Administration (per appointment):

1. panel penilai kandungan manuskrip, 25/09/2018-22/10/2018 (University)
2. panel pembentangan laporan kemajuan geran rui 2017, 25/06/2018-25/06/2018 (University)

3. panel penilai geran penyelidikan pembangunan prototaip (PRGS), 24/05/2018-24/05/2018 (University)
4. AJK Perlindungan sinaran universiti, 13/07/2016-31/12/2018 (University)
5. AJK Perlindungan sinaran universiti, 13/07/2016-31/12/2018 (University)
6. panel temuduga program ijazah sarjana muda kejuruteraan (kepujian) kejuruteraan bahan, 2016/2017, 11/05/2016-12/05/2016 (-)
7. Jawatankuasa siasatan kes bayaran di bawah arahan perbendaharaan 59, 25/04/2016-31/10/2016 (-)
8. Jawatankuasa Pra Tender (Alatan/Kerja), 15/02/2016-31/12/2018 (-)
9. Jawatankuasa tetap penilaian awal kenaikan pangkat staf akademik, 01/01/2016-31/12/2016 (-)
10. AJK kecil PTJ- sumber manusia, 01/01/2016-31/12/2016 (-)
11. AJK ijazah tinggi dan penyelidikan PPKBSM, 01/01/2016-31/12/2016 (-)
12. AJK Keselamatan dan Kesihatan Pekerjaan, Kampus Kejuruteraan (JKKP KKj), 11/11/2015-11/11/2017 (-)
13. AJK Perlindungan sinaran universiti, 10/10/2015-11/11/2017 (University)
14. jk tetap penilai awal kenaikan pangkat staf akademik, 22/04/2015-31/05/2015 (-)
15. AJK Kecil Pusat Tanggungjawab (PTJ) - Sumber Manusia, 19/01/2015-31/12/2015 (-)
16. Penilai permohonan geran RU 2014 - bidang kejuruteraan dan teknologi, 09/12/2014-09/12/2014 (-)
17. JK kempen keselamatan (safety and security) dan kesihatan pekerjaan USM 2014/2015, kampus kejurutera, 24/11/2014-30/04/2015 (-)
18. wakil senat dalam jk kehilangan dan hapuskira, usm, 04/09/2014-14/08/2017 (-)
19. ahli senat, 15/08/2014-14/08/2017 (University)
20. Penilai permohonan geran sciencefund fasa 2/2014, 09/06/2014-09/06/2014 (-)
21. Penilai permohonan skim geran penyelidikan transdisiplinari (TRGS) fasa 1/2014, 30/04/2014-30/04/2014 (-)
22. deputy dean (research), 01/01/2013-31/12/2015 (-)
23. TIMBALAN DEKAN , PUSAT PENGAJIAN KEJURUTERAAN BAHAN DAN SUMBER MINERAL, 01/01/2013-31/12/2015
24. AJK penyemakan dan penyediaan format prosedur kerja selamat (SOP) punca sinaran, 06/03/2012-31/12/2012 (-)

25. AJK kelompok pusat tanggungjawab (PTJ) - sumber manusia (kejuruteraan), 01/02/2012-01/01/2013 (-)
26. AJK alatan universiti 2012, 01/02/2012-31/12/2012 (-)
27. ahli jk kecil ptj - sumber manusia, 09/12/2011-31/01/2013 (-)
28. Jawatankuasa keselamatan dan kesihatan pekerjaan (JKKP) kampus kejuruteraan, 11/11/2011-11/11/2013 (-)
29. Nano Mesh GMP facility, 25/08/2011-25/08/2013 (-)
30. ahli senat, 01/08/2011-01/08/2011 (-)
31. jawatankuasa pratender alat, 01/03/2010-01/03/2013 (-)
32. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL, 26/03/2007-31/05/2008
33. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL, 26/03/2005-25/03/2007
34. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL, 26/03/2003-25/03/2005
35. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL, 01/01/2003-25/03/2003
36. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL, 01/01/2001-31/12/2002
37. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 01/01/1999-31/12/2000
38. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 15/03/1998-31/12/1998
39. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 01/05/1997-14/03/1998
40. Pengerusi Rancangan , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 01/01/1995-31/12/1996
41. Penyunting Akademik , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 01/04/1994-31/12/1994
42. Penyunting Akademik , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 01/04/1993-31/03/1994
43. Penyunting Akademik , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 01/04/1987-31/03/1988
44. Penyunting Akademik , Pusat Pengajian Kejuruteraan BAHAN DAN SUMBER MINERAL (KCP), 01/10/1986-28/02/1987

University Committee:

1. panel penilai kandungan manuskrip, 25/09/2018-22/10/2018 (University)
2. panel pembentangan laporan kemajuan geran rui 2017, 25/06/2018-25/06/2018 (University)
3. panel penilai geran penyelidikan pembangunan prototaip (PRGS), 24/05/2018-24/05/2018 (University)
4. AJK Perlindungan sinaran universiti, 13/07/2016-31/12/2018 (University)
5. panel temuduga program ijazah sarjana muda kejuruteraan (kepujian) kejuruteraan bahan, 2016/2017, 11/05/2016-12/05/2016 (-)
6. Jawatankuasa siasatan kes bayaran di bawah arahan perbendaharaan 59, 25/04/2016-31/10/2016 (-)
7. Jawatankuasa Pra Tender (Alatan/Kerja), 15/02/2016-31/12/2018 (-)
8. AJK kecil PTJ- sumber manusia, 01/01/2016-31/12/2016 (-)
9. Jawatankuasa tetap penilaian awal kenaikan pangkat staf akademik, 01/01/2016-31/12/2016 (-)
10. AJK Keselamatan dan Kesihatan Pekerjaan, Kampus Kejuruteraan (JKKP KKj), 11/11/2015-11/11/2017 (-)
11. jk tetap penilai awal kenaikan pangkat staf akademik, 22/04/2015-31/05/2015 (-)
12. wakil senat dalam jk kehilangan dan hapuskira, usm, 04/09/2014-14/08/2017 (-)
13. ahli senat, 15/08/2014-14/08/2017 (University)
14. AJK penyemakan dan penyediaan format prosedur kerja selamat (SOP) punca sinaran, 06/03/2012-31/12/2012 (-)
15. AJK alatan universiti 2012, 01/02/2012-31/12/2012 (-)
16. AJK kelompok pusat tanggungjawab (PTJ) - sumber manusia (kejuruteraan), 01/02/2012-01/01/2013 (-)
17. ahli jk kecil ptj - sumber manusia, 09/12/2011-31/01/2013 (-)
18. Jawatankuasa keselamatan dan kesihatan pekerjaan (JKKP) kampus kejuruteraan, 11/11/2011-11/11/2013 (-)
19. ahli senat, 01/08/2011-01/08/2011 (-)
20. jawatankuasa pratender alat, 01/03/2010-01/03/2013 (-)

School Committee:

1. AJK Perlindungan sinaran universiti, 13/07/2016-31/12/2018 (University)
2. AJK ijazah tinggi dan penyelidikan PPKBSM, 01/01/2016-31/12/2016 (-)
3. AJK Perlindungan sinaran universiti, 10/10/2015-11/11/2017 (University)
4. AJK Kecil Pusat Tanggungjawab (PTJ) - Sumber Manusia, 19/01/2015-31/12/2015 (-)
5. Penilai permohonan geran RU 2014 - bidang kejuruteraan dan teknologi, 09/12/2014-09/12/2014 (-)
6. JK kempen keselamatan (safety and security) dan kesihatan pekerjaan USM 2014/2015, kampus kejurutera, 24/11/2014-30/04/2015 (-)
7. Penilai permohonan geran sciencefund fasa 2/2014, 09/06/2014-09/06/2014 (-)
8. Penilai permohonan skim geran penyelidikan transdisiplinari (TRGS) fasa 1/2014, 30/04/2014-30/04/2014 (-)
9. Nano Mesh GMP facility, 25/08/2011-25/08/2013 (-)

University Representative (Sport and Non-Academic Activities) :

Position, Name of the Community/Type of Industry Engagement, Duration (Level)

International

1. -,member of the international advisory committee for ICXRI2016, -, 09/12/2015-18/08/2016 (International)
2. -,ignite2016, -, 01/01/2015-29/01/2016 (International)
3. -,Deputy Chairman Inter. Conference for Nanomaterials Synthesis and Characterization 2011 (INSC2011), -, 04/07/2011-05/07/2011 (International)
4. -,Chairman of the international conference on x-ray and related techniques 2012 (ICXRI2012), -, 01/01/2011-01/10/2012 (International)

National

- Project Leader/Coordinator, chairman of the X-ray application society of
1. malaysia - MNS, -15/04/2017 - present (National), Community, 15/04/2017-
14/04/2019 (National)
- Volunteer, member of the international advisory committee for Advanced
2. Materials Characterization Techniques 2017 (AMCT2917), Community,
13/02/2017-30/11/2017 (National)
3. -, Kreatif Link 2016 - Titian Kreatif TUNAS, -, 05/09/2016-05/09/2016
(National)
4. -, ICXRI 2014, -, 12/08/2014-12/08/2014 (National)
5. -, ICXRI 2014, -, 11/08/2014-13/08/2014 (National)
6. -, mentor for research acculturation collaboration effort (RACE) project -
2/2013 phase, -, 09/07/2014-09/07/2014 (National)
7. -, JK Penilai Standard - Jab. Kemahiran, Kem. S. Manusia Malaysia, -,
22/05/2014-22/05/2014 (National)
8. -, vice chairman of the X-ray application society of malaysia - MNS, -,
01/01/2004-15/04/2017 (National)

State

District/Village/Institution

1. -, ajk surau al hidayah, taman semarak, parit buntar, perak, -, 01/06/2009-
01/06/2013 (Village)
2. Pengerusi sekolah rendah agama rakyat al hidayah, taman semarak, parit
buntar – 2017 - kini