

1. PERSONAL DATA

Full Name : Assoc. Prof. Dr. Khairunisak Abdul Razak
Nationality : Malaysian
NRIC No. : 771030-08-6438
Date of birth : 30.10.1977
Nationality : Malaysian
Sex : Female
Current position : Associate Professor
Qualification : Ph.D in Chemical and Materials Engineering (Auckland)
Field of specialization : Electronic materials, Nanobiotechnology
h-index : 12
Citation : 372
E-mail : khairunisak@eng.usm.my
Phone : +604-5996126/ +6017-4064070
Fax : +604-5941011



2. ACHIEVEMENT

Grants:

	Title of Research <i>Tajuk penyelidikan</i>	Grant's Name <i>Nama Geran</i>	Position / Role <i>Jawatan / Peranan</i>	Amount	Duration <i>Tempoh</i>	Start Date <i>Tarikh mula</i>	End Date <i>Tarikh tamat</i>
1	Understanding the effect of size and shape on interaction of ZnO nanorods with glucose in enzymatic and non-enzymatic systems	FRGS	Principle Investigator	RM90,434	24 Months	1 July 2014	30 June 2016
2	Development of Drug Delivery System (DDS) for Tuberculosis using Silica Nanocarriers (On-going)	USM Research University (RU) Grant	Principle Investigator	RM201,200	24 Months	1 May 2010	30 April 2013

3	Fundamental studies of lead free rare earth doped-Bi _x Na _{1-x} TiO ₃ (BNT) piezoelectric material synthesize using a wet chemical technique. (Completed)	USM Research University (RU) Grant	Principle Investigator	RM101,300	24 Months	1 August 2009	31 July 2011
4	Production of in house gold nanoparticles conjugated biomolecules for diagnostic applications, - (Project 9 in RU cluster RM4,867,684) (On-going)	USM Research University (RU) Grant (Cluster)	Principle Investigator	RM320,098	36 Months	1 June 2011	31 May 2014
5	BioNexus Partner	Malaysian Biotechnology Corporation	Project head	RM444,824	1 year	August 2011	July 2012
6	Performance analysis of iron oxide ferrofluid conjugated biomolecules for diagnostic applications	ERGS	Principle Investigator	RM50000	24 months	1 August 2012	31 July 2014
7	Synthesis of stable nanomagnets in solution (ferrofluid) for disease detection applications 304/Pbahan/6050228/L117	L'oreal Malaysia	Principle investigator	RM20000	24 months	16 August 2011	15 August 2013
8	Formation and Integrity Studies of Iron Fused ZrO ₂ Nanotubes Catalysts System for Green Urea Production (Research programme: OneBAJA: Next Generation Green and Economical Urea, UTP) RM780 000	Ministry of Higher Education Malaysia (MOHE, Long Term Fundamental Research Grant Scheme (LRGS))	Co-researcher	RM780 000		1/8/2011	30/7/2016
9	Production of gold colloidal conjugated antibodies for diagnostic applications (1 Jan 2011-31 Dec 2012) (On-going)	USM Research University (RU) Grant	Co-researcher	RM196,829	24 Months	1 Jan 2011	31 Dec 2012
10	The formation of self aligned electrochromic WO ₃ nanorods by template growth in controlled chemical bath (On-going)	USM Research University (RU) Grant	Co-researcher	RM186,490	24 Months	1 May 2010	30 April 2012
11	Development of organic (aloe vera)-based dielectric thin film (On-going)	USM Short Term Grant	Co-researcher	RM38369	24 months	15 August 2011	14 August 2013
12	Self entrapment of silica encapsulated fluorescence dye (On-going)	USM Short Term Grant	Co-researcher	RM33,900	24 Months	15 Nov 2010	14 Nov 2012
13	Formation of tungsten oxide (WO ₃) nanostructures for smart window application synthesized via template growth hydrothermal reaction, Ng Chai Yan (Ongoing)	PRGS- Postgraduate research grant scheme	Co-researcher	RM19996.87	36 months	15 Aug 2011	14 Aug 2014
14	Development of iron oxide ferrofluid conjugated biomolecules for diagnostic applications, Noorhashimah Mohamad Nor (Ongoing)	PRGS- Postgraduate research grant scheme	Co-researcher	RM9490.00	21 months	15 Sept 2011	14 June 2013

15	Synthesis of silica nanocolloids drug delivery system using micelle formation approach, Hajarul Azwana Ab Wab	PRGS-Postgraduate research grant scheme	Co-researcher	RM8425.00	24 bulan	15 Sept 2011	14 Sept 2013
16	Gold coated iron oxide conjugate biomolecules for disease detection application, Siti Rabizah Makhsin, (Ongoing)	PRGS-Postgraduate research grant scheme	Co-researcher	RM9185.00	21 months	15 Sept 2011	14 June 2013
17	Feasibility study of ZnO nanorods for gas sensor application, Nur Syafinaz Ridhuan (Ongoing)	PRGS-Postgraduate research grant scheme	Co-researcher	RM8994.45	21 months	15 Sept 2011	14 June 2013
18	Development of gold conjugated antibodies for diagnostic application, Pauline Teoh (Ongoing)	PRGS-Postgraduate research grant scheme	Co-researcher	RM8183.50	18 months	15 Dec 2010	14 May 2012
19	Newsprint and e-newsprint production via lean APMP system adapted to EFB (Leader: Dr Arniza Ghazali) (On-going)	USM Research University (RU) Grant	Co-researcher	RM331,981	24 Months	15 Jan 2009	14 Jan 2012
20	Study on the parameters influenced the synthesis of nanoporous alumina through sol-gel auto-combustion method (Leader: Dr Hasmaliza Mohamad) (On-going)	USM Short Term Grant	Co-researcher	RM32,801	24 Months	1 July 2008	30 June 2010
21	Synthesis and electrical microstructure modeling of barium strontium titanate (BST) (Completed)	USM Short Term Grant	Co-researcher	RM36,238	24 Months	15 April 2008	14 Oct 2010
22	Functionality of thick film composites as potential candidates in antenna applications (Completed)	USM Short Term Grant	Principle Investigator	RM35,900	24 Months	1 March 2008	28 Feb 2010

Graduate students:

PhD candidates (graduated):

1. Vemal a/l Raja Manikam, "Die attach materials for high temperature use on SiC devices", 2012 (Co-supervise with Assoc. Prof. Dr. Cheong Kuan Yew)
2. Umar Al-Amani Azlan, "Synthesis of rare-earth doped bismuth titanate using wet chemical technique", 2014 (Co-supervise with Dr Srimala Sreekantan)
3. Ng. Chai Yan, "Formation of WO₃ nanostructures for smart window application", 2015 (main supervisor).

PhD candidates (Ongoing):

1. Ng. Soo Ai, Development of Gold Nanoparticles Thin Film for MOS Memory Device Application, (main supervisor), 1 August 2011-31 July 2014
2. Noorhashimah Mohamad Nor, The development of glucose biosensor based on iron oxide nanoparticles. 2013
3. Nursyafinaz Ridhuan, The Development of Zinc Oxide Nanorods for Biosensor Application, 2014
4. Nurul Sabihah binti Zakaria, “Bioconjugated and biofunctionalised molecules for molecular detection using atomic force microscope (AFM)”, (Co-supervise with Assoc. Prof. Dr. Azlan Abdul Aziz)

Master Degree (Research)

(i) Graduated MSc students (research)

1. Mohammad Saleh Gorji, 2011 (co-supervise with Assoc. Prof. Ir. Dr. Cheong Kuan Yew)
2. Dede Miftahul Anwar, Formation of nanostructured oxide film as catalyst support for ammonia production”, 2014 (co-supervisor with Dr Zainovia Lockman)
3. Hajarul Azwana Ab Wab, “Development of self entrapment silica drug delivery system” 1 November 2010-(main supervisor)- 2013
4. Siti Rabizah Makhsin, “Production of Gold-coated Iron Oxide Conjugated Bio Molecules for Disease Detection Application (main supervisor)- 2013
5. Noorhashimah Mohamad Nor, “Development of iron oxide ferrofluid conjugated biomolecules for diagnostic applications” (main supervisor)- 2013
6. Nursyafinaz Ridhuan, “Feasibility study of ZnO nanorods for gas sensor application” (main supervisor)- 2013
7. Teoh Poay Ling, “Properties study of gold conjugated antibodies for diagnostic applications” (main supervisor), 2012
8. Radin Shafinaz binti Jamil, “Synthesis of porous alumina through sol-gel combustion for biomedical applications”, (Co-supervise with Dr. Hasmaliza Mohamad)- graduated 2011
9. Tan Wai Kian, “Flexible Optoelectronics Device on Polymeric Substrate”, (Co-supervise with Dr. Zainovia Lockman), 2011
10. Nik Akmar Rejab, Synthesis of ceramics using wet chemical technique for antenna applications”, (Co-supervise with Prof. Zainal Arifin Ahmad), 2010

11. Tedi Kurniawan, "Formation of ZrO₂ thin film by thermal oxidation of sputtered Zr and SiC substrate", (co-supervise with Dr Cheong Kuan Yew), 2009

(ii) Graduated MSc students (Mixed mode)

1. Ng Soo Ai, The effects of size and shape of gold nanoparticles thin film properties (main supervisor), (main supervisor), July 2011
2. Ng Chai Yan, "Pr doped lead free piezoelectric (Bi_{0.5}K_{0.5})TiO₃ prepared by soft combustion technique" (main supervisor), July 2010
3. Chiah Jun Yip, "Pr doped lead free piezoelectric (Bi_{0.5}Na_{0.5})TiO₃ prepared by soft combustion technique" (main supervisor), July 2010

Ongoing MSc candidates

Publications:

- i. Chapters in book: 4
- ii. International journals: 66
- iii. National journal: 4
- iv. International conference: 82
- v. National conference: 30

Patents/ Copyrights/ Filing

4 Copyrights

- i. Khairunisak Abdul Razak, Azlan Abdul Aziz, Shaharum Shamsuddin, Synthesis and characterization of NanoPDT, 2010, p. 1-42
- ii. Khairunisak Abdul Razak, Azlan Abdul Aziz, Shaharum Shamsuddin, Synthesis and characterization of magnetic nanoparticles, 2010, p. 1-52
- iii. Khairunisak Abdul Razak, Azlan Abdul Aziz, Shaharum Shamsuddin, Synthesis and characterization of liposomes encapsulated doxorubicin, 2010, p. 26
- iv. Khairunisak Abdul Razak, Azlan Abdul Aziz, Shaharum Shamsuddin, Synthesis and characterization of gold nanoparticles, 2010, p. 1-18

Achievements/Awards / Recognitions:

Academic awards:

- L'oreal Women in Science, 2011, L'oreal Malaysia
- Awarded a USM Hall of Fame Award (Anugerah Sanggar Sanjung), Publication Category, 2012
- Awarded a USM Hall of Fame Award (Anugerah Sanggar Sanjung), Publication Category, 2011
- Awarded a USM Hall of Fame Award (Anugerah Sanggar Sanjung), Publication Category, 2010
- Awarded a USM "Sanjungan" Prize, Publication Category, 2010
- Awarded a USM "Sanjungan" Prize, Publication Category, 2009 (2 manuscripts)
- Awarded a USM Hall of Fame Award (Anugerah Sanggar Sanjung), Publication Category, 2008
- Awarded a USM Hall of Fame Award (Anugerah Sanggar Sanjung), Publication Category, 2007
- Awarded a USM "Sanjungan" Prize, Publication Category, 2007
- PhD completion award, University of Auckland, 2007
- Graduate Research Fund, University of Auckland, 2006

Academic recognitions:

Reviewer for international journals:

- Materials Chemistry and Physics (20 manuscripts)
- Journal of Alloys and Compounds (4 manuscripts)
- Materials Research Bulletin (1 manuscript)
- Journal of Materials Science (5 manuscript)
- Current Applied Physics (1 manuscript)
- Journal of Physics and Chemistry of Solids (1 Manuscript)

- Solid State Sciences (1 manuscript)
- International Journal of Thermophysics (1 manuscript)
- Sains Malaysiana (2 manuscripts)
- International conferences (8 manuscripts)
- Advanced Materials Research (10 manuscripts)

5. CURRENT RESEARCH AND PAST RELATED RESEARCH:

Current research area

- ◆ Electronic ceramic formation via soft combustion, wet chemical, hydrothermal and solid state techniques.
- ◆ Films formation via electrophoretic deposition, low temperature hydrothermal techniques, seeded growth approach
- ◆ Nanoparticles for biomedical applications including drug delivery system and diagnostic applications.

Past research area:

- ◆ Structural and properties studies of BST produced by high temperature hydrothermal technique.
- ◆ Development of piezoelectric materials for fibre optic switching applications.
- ◆ Formation of ferroelectric thick film via electrophoretic deposition technique.

6. RESEARCH PUBLICATIONS:

Chapters in book

- i. Umar Al-Amani, S. Sreekantan, M. N. Ahmad Fauzi, **K. A. Razak**, Current Progress In Synthesis and Properties of Doped Bismuth Titanate For Advanced Electronic Applications, in Bismuth: Characteristics, Production and Applications, 2011, ISBN: 978-1-61470-640-3, Editor: Kamakhya Prasad Ghatak, Nova Publishing
- ii. Umar Al-Amani, S. Sreekantan, M.N. Ahmad Fauzi, **K. A. Razak**, Synthesis and Properties of Nd-Doped $\text{Bi}_4\text{Ti}_3\text{O}_{12}$ Using the Soft Combustion Technique, in Bismuth:

Characteristics, Production and Applications, 2011, ISBN: 978-1-61470-640-3, Editor: Kamakhya Prasad Ghatak, Nova Publishing

- iii. Umar Al-Amani Azlan , Warapong Krengvirat, Ahmad Fauzi Mohd Noor, **Khairunisak Abd. Razak** and Srimala Sreekantan, Sintering and Characterization of Rare Earth Doped Bismuth Titanate Ceramics Prepared by Soft Combustion Synthesis, in Sintering, 2011, ISBN 978-953-308-4-8, Intech
- iv. Teoh Poay Ling, **Khairunisak Abdul Razak**, Azlan Abdul Aziz, Rahmah Noordin, Controlled synthesis of gold nanorods via seeded growth approach, Adv Struct Mater (2013) 4: 61–72.

International refereed journals (5 years):

1. Mei Ling Cheah, Khairunisak Abdul Razak, Chai Yan Ng, Properties of lanthanum-doped bismuth sodium titanate ($\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3$) prepared by soft combustion technique, Advanced Materials Research, 2014,858 (2014), 141-146
2. Noorhashimah Mohamad Nor, Khairunisak Abdul Razak, Rahmah Noordin, The effect of oxygen precursor concentration to the iron oxide nanoparticles properties for lateral flow immunoassay application, Advanced Materials Research, 2014,1024 (2014), 277-280.
3. S.A. Ng, L.P. Goh, K.A. Razak, K.Y. Cheong, P.C. Ooi, K.C. Aw, The effect of hydrothermal reaction time on formation of AuNPs by sacrificial templated growth hydrothermal approach, Advanced Materials Research, 2014,1024 (2014), 71-74.
4. Monna Rozana, Mustaffa Ali azhar, Dede Miftahul Anwar, Go Kawamura, Khairunisak Abdul Razak, Atsunori Matsuda, Zainovia Lockman, Effect of applied voltage on the formation of self-organized iron oxide nanoporous film in organic electrolyte via anodic oxidation process and their photocurrent performance, Advanced Materials Research, 2014,1024 (2014), 99-103
5. Nur Syafinaz Ridhuan, Nabil Iman Muzzafaruddin, Khairunisak Abdul Razak, K. C. Aw, Formation of platinum nanodendrites embedded organic insulator for memory application, Advanced Materials Research, 2014,1024 (2014), 44-47
6. Syazwan Saidin, Muhammad H Yunus, Nor D Zakaria, Khairunisak A Razak, Lim B Huat, Nurulhasanah Othman, Rahmah Noordin, Production of recombinant Entamoeba histolytica pyruvate phosphate dikinase and its application in a lateral flow dipstick test for amoebic liver abscess, BMC infectious diseases, 14, (2014) p 533
7. Mohammad Saleh Gorji, Khairunisak Abdul Razak, Kuan Yew Cheong, Schottky barrier height engineering of Al contacts on Si by embedded Au nanoparticles, Microelectronic Engineering, 2014, [doi:10.1016/j.mee.2014.11.007](https://doi.org/10.1016/j.mee.2014.11.007)

8. MS Gorji, AR Khairunisak, KY Cheong, Deposition of Gold Nanoparticles on Linker-Free Silicon Substrate by Spin-Coating, *Advanced Materials Research* 1024, (2014) 124-127
9. Mustaffa Ali Azhar, Monna Rozana, Mabel de Cunha, Dede Miftahul Anwar, Ehsan Ahmadi, Abdul Razak Khairunisak, Kuan Yew Cheong, Zainovia Lockman, Effect of Annealing Temperature of Hybrid CeO₂/TiO₂ Nanotubes on the Photocurrent, *Advanced Materials Research* 1024,(2014)132-135
10. Siti Rabizah Makhsin, Khairunisak Abdul Razak, Rahmah Noordin, Development of Silver-Coated Gold Nanoparticles and its Conjugation for Labeling on Lateral Flow Immunoassay, *Advanced Materials Research* 1024,(2014), 273-276
11. Ghaseb N Makhadmeh, Azlan Abdul Aziz, Khairunisak Abdul Razak, Loading and Unloading Properties of Encapsulated Methylene Blue in Silica Nanoparticles for Photodynamic Applications, *Advanced Materials Research* 1024,(2014), 292-295
12. Wai Kian Tan, Leow Cheah Li, Khairunisak Abdul Razak, Go Kawamura, Hiroyuki Muto, Atsunori Matsuda, Zainovia Lockman, Formation of Two-Dimensional ZnO Nanosheets by Rapid Thermal Oxidation in Oxygenated Environment, *Journal of nanoscience and nanotechnology*, 14(4), 2014, 2960-2967
13. S. A. Ng, K. A. Razak, L. P. Goh, K.Y. Cheong, P.C. Ooi, K. C. Aw, Direct formation of AuNPs thin film using thermal evaporated zinc as sacrificial template in hydrothermal method, *Journal of Materials Science: Materials in Electronics*, (2014) 25:2227–2236 (IF=1.486)
14. Hajarul Azwana Ab Wab, Khairunisak Abdul Razak, Nor Dyana Zakaria, Properties of amorphous silica nanoparticles colloid drug delivery system synthesized using the micelle formation method, *J Nanopart Res* (2014) 16:2256 (IF=2.175)
15. Chai Yan Ng, Khairunisak Abdul Razak, Zainovia Lockman, WO₃ nanorods prepared by low-temperature seeded growth hydrothermal reaction, *Journal of Alloys and Compounds* 588 (2014) 585–591 (IF=2.39)
16. Chai Yan Ng, **Khairunisak Abdul Razak**, Azlan Abdul Aziz, Zainovia Lockman, The formation of WO₃ Nanorods using the Surfactant-Assisted Hydrothermal Reaction, *Journal of Experimental Nanoscience*, 2014, Vol. 9, No. 1, 9–16 (IF= 1.011) [△](#)
17. Soo Ai Ng, **Khairunisak Abdul Razak**, Azlan Abdul Aziz, Kuan Yew Cheong, The effect of size and shape of gold nanoparticles on thin film properties, *Journal of Experimental Nanoscience*, 2014, Vol. 9, No. 1, 64–77 (IF= 1.011)
18. S.A. Ng, L.P. Goh, K.A. Razak, K.Y. Cheong, P.C. Ooi, K.C. Aw, Effect of zinc nitrate concentration on formation of AuNPs by sacrificial templated growth hydrothermal approach and its properties in organic memory device, *Advanced Materials Research*, 2014,858 (2014), p 67-73

19. Z Lockman, DM Anwar, M Rozana, S Ismail, E Ahmadi, AR Khairunisak, Formation of Anodic Oxide Nanotubes in H₂O₂-Fluoride Ethylene Glycol Electrolyte as Template for Electrodeposition of α -Fe₂O₃, *Advanced Materials Research*, 2014, 832, 333-337
20. Venugopal Balakrishnan, Hajarul Azwana Ab Wab, Khairunisak Abdul Razak, Shaharum Shamsuddin, In vitro evaluation of cytotoxicity of colloidal amorphous silica nanoparticles designed for drug delivery on human cell lines, *Journal of Nanomaterials*, 2013, 1-8 (IF=1.547)
21. MS Gorji, KA Razak, KY Cheong, Gold nanoparticles deposited on linker-free silicon substrate and embedded in aluminum Schottky contact, *Journal of colloid and interface science*, 2013, 408, 220-228 (IF=3.172)
22. Kean C Aw, Poh Choon Ooi, Khairunisak Abdul Razak, Wei Gao, A Transparent and Flexible Organic Bistable Memory Device Using Parylene with Embedded Gold Nanoparticles, *Journal of Materials Science: Materials in Electronics, J Mater Sci: Mater Electron* (2013) 24:3116–3125 (IF=1.486) [△](#)
23. Abbas Khan, Muhammad Bisyrul Hafi Othman, Khairunisak Abdul Razak, Hazizan Md Akil, Synthesis and physicochemical investigation of chitosan-PMAA- based dual-responsive hydrogels, *J Polym Res* (2013) 20:273 (IF= 2.019)
24. Vemal Raja Manikam, Khairunisak Abdul Razak, Kuan Yew Cheong, Reliability of sintered Ag₈₀–Al₂₀ die attach nanopaste for high temperature applications on SiC power devices, *Microelectronics Reliability* 53 (2013) 473–480 (IF= 1.167) [△](#)
25. VR Manikam, KA Razak, KY Cheong, A novel silver–aluminium high-temperature die attach nanopaste system: the effects of organic additives content on post-sintered attributes, *Journal of Materials Science: Materials in Electronics*, 2013, 24 (8), 2678-2688 (IF=1.486)
26. P.C. Ooi, K.C. Aw, W. Gao, **K.A. Razak**, An optically transparent and flexible memory with embedded gold nanoparticles in a polymethylsilsesquioxane dielectric, *Thin Solid Films*, 544 (2013) 597–601 (IF=1.89)
27. Tan Wai Kian, **Khairunisak Abdul Razak**, Zainovia Lockman, Go Kawamura, Hiroyuki Muto, and Atsunori Matsuda, Photoluminescence properties of rod-like Ce-doped ZnO nanostructured films formed by hot-water treatment of sol-gel derived coating, *Optical Materials*, 2013, Volume 35, Issue 11, p. 1902-1907(IF=2.023)
28. Wai KianTan, **Khairunisak Abdul Razak**, Zainovia Lockman, Go Kawamura, Hiroyuki Muto, Atsunori Matsuda, Formation of highly crystallized ZnO nanostructures by hot-water treatment of etched Zn foils, *Materials Letters* 91 (2013) 111–114 (IF=2.307) [△](#)
29. Hajarul Azwana Ab Wab, Nor Dyana Zakaria, Azlan Abdul Aziz and **Khairunisak Abdul Razak**, The effect of amount of surfactant and types of drug on amorphous silica drug delivery system (DDS), *Advanced Materials Research*, 620(2013), p. 112-116 [△](#)

30. Umar Al Amani Azlan, Srimala Sreekantan, Ahmad Fauzi Mohd Noor, **Khairunisak, Abd. Razak**, Single step combustion synthesis to prepare bismuth titanate ceramics for potential applications, *Advanced Materials Research*, 620(2013), p. 429-434. [△](#)
31. Norhashimah Mohamad Nor, **K. Abdul Razak**, Azlan Abdul Aziz, Rahmah Noordin, Iron salt concentration effect to the precipitation of iron oxide nanoparticles conjugated antibody, *Advanced Materials Research*, 620(2013), p. 268-272. [△](#)
32. **Khairunisak Abdul Razak**, Mohamad Afifi Anuar, Chai Yan Ng, The effects of combustion agent on the formation of Bi-based compounds synthesized using the sift combustion technique, *Advanced Materials Research*, 620(2013), p. 156-160 [△](#)
33. Siti Rabizah Makhsin, **Khairunisak Abdul Razak**, Azlan Abdul Aziz, Rahmah Noordin, Green Synthesis of 10 nm Gold Nanoparticles via Seeded-growth Method and its Conjugation Properties on Lateral Flow Immunoassay, *Advanced Materials Research*, 686(2013), p. 8-12
34. Nor Dyana Zakaria, A. S. Navanithan, Khairunisak Abdul Razak, Azlan Abdul Aziz, Shaharum Shamsuddin, Physiscal properties of the amorphous silica encapsulated fluorescence dye, *Advanced Materials Research*, 686(2013), p. 285-289
35. Nurul Sabihah Zakaria, Siti rabizah Makhsin, Azlan Abdul Aziz, Khairunisak A. Razak, Imaging of colloidal gold nanoparticle using atomic force microscope, *Nano Hybrids*, Vol. 4(2013),p. 47-60
36. Vemal Raja Manikam, Kim Seah Tan, Khairunisak Abdul Razak, Kuan Yew Cheong, Nanoindentation of porous die attach materials as a means of determining mechanical attributes, *Applied Mechanics and Materials*, 393 (2013), 57-62
37. Vemal Raja Manikam, Khairunisak Abdul Razak, Kuan Yew Cheong, Sintering of Silver–Aluminum Nanopaste With Varying Aluminum Weight Percent for Use as a High-Temperature Die-Attach Material, *Components, Packaging and Manufacturing Technology*, IEEE Transactions on, 2012, 2(12), 1940-1948
38. Siti Rabizah Makhsin, **Khairunisak Abdul Razak**, Rahmah Noordin, Nor Dyana Zakaria, Tan Soo Chun, The effects of size and synthesis methods of gold nanoparticle-conjugated M α HIgG₄ for use in immunochromatographic strip test to detect brugian filariasis, *Nanotechnology*, 23(2012)495719 (IF= 3.979) [△](#)
39. Nur Syafinaz Ridhuan, **Khairunisak Abdul Razak**, Zainovia Lockman, Azlan Abdul Aziz, Structural and morphology of ZnO nanorods synthesized using ZnO seeded growth hydrothermal method and its properties as UV sensing, *Plos One*, November 2012, Volume 7, Issue 11, e50405 (IF=4.092) [△](#)
40. Lean Poh Goh, **Khairunisak Abdul Razak**, Nur Syafinaz Ridhuan, Kuan Yew Cheong, Poh Choon Ooi, Kean Chin Aw, Direct formation of gold nanoparticles on substrates using a novel ZnO sacrificial templated-growth hydrothermal approach and their properties in organic memory device, *Nanoscale Research Letters* 2012, 7:563 (IF=2.726) [△](#)
41. Noorhashimah Mohamad Nor, **Khairunisak Abdul Razak**, Tan Soo Choon, Rahmah Noordin, Properties of Surface Functionalized Iron Oxide Nanoparticles (ferrofluid)

- Conjugated Antibody for Lateral Flow Immunoassay Application, *Journal of alloys and Compounds*, 538 (2012)p. 100-106 (IF=2.289). [△](#)
42. P.C. Ooi, K.C. Aw, **K.A. Razak**, W. Gao, Effects of Metal Electrodes and Dielectric Thickness on Nonvolatile Memory with embedded Gold Nanoparticles in Polymethylsilsesquioxane, *Microelectronic Engineering*, 98 (2012) 74–79 (IF= 1.557) [△](#)
 43. Umar Al-Amani, S. Sreekantan, M.N. Ahmad Fauzi, A.R. Khairunisak, K. Warapong, Soft Combustion Technique: Solution Combustion Synthesis and Low-Temperature Combustion Synthesis; to Prepare Bi₄Ti₃O₁₂ Powders and Bulk Ceramics, *Science of Sintering*, 44 (2012) 211-221 (IF= 0.274) [△](#)
 44. Vemal Raja Manikam, **Khairunisak Abdul Razak**, Kuan Yew Cheong, Physical and electrical attributes of sintered Ag₈₀-Al₂₀ high temperature die attach material with different organic additives content, *Journal of Materials Science: Materials in Electronics*, 2012, 1-14 (IF=1.076) [△](#)
 45. Vemal Raja Manikam, Khairunisak Abdul Razak, Kuan Yew Cheong, Effect of sintering time on silver-aluminium nanopaste for high temperature die attach applications, *Advanced Materials Research*, Vol 576, 2012, 199-202 [△](#)
 46. Siti Rabizah Makhsin, **Khairunisak Abdul Razak**, Azlan Abdul Aziz, Rahmah Noordin, Study on Controlled Size, Shape and Dispersity of Gold Nanoparticles (AuNPs) Synthesized via Seeded-growth Technique for Immunoassay Labeling, *Advanced Materials Research*, Vol 364, 2012, 504-509. [△](#)
 47. Hajarul Azwana Ab Wab, Nor Dyana Zakaria, Azlan Abdul Aziz, **Khairunisak Abdul Razak**, Properties of amorphous silica entrapped isoniazid drug delivery system (DDS), *Advanced Materials Research*, Vol 364, 2012, 134-138. [△](#)
 48. NoorhashimahMohamad Nor, NorDyana Zakaria, Azlan Abdul Aziz, **Khairunisak Abdul Razak**, Rahmah Nordin, Iron Oxide Nanoparticles Conjugated Monoclonal Antibody for Immunochromatographic Strip Test, *Advanced Materials Research*, Vol 364, 2012, 30-34. [△](#)
 49. Nur Syafinaz Ridhuan, Zainovia Lockman, Azlan Abdul Aziz, **Khairunisak Abdul Razak**, Properties of ZnO nanorods arrays growth via low temperature hydrothermal reaction, *Advanced Materials Research*, Vol 364, 2012, 422-426. [△](#)
 50. Umar Al-Amani Azlan, Srimala Sreekantan, Ahmad Fauzi Mohd Noor, Khairunisak Abd. Razak, Satoshi Tanaka, Uematsu Keizo, Structural and electrical properties of lanthanide substituted-bismuth titanate prepared by low-temperature combustion synthesis, *Advanced Materials Research*, Vol 545, 2012, 279-284. [△](#)
 51. **Razak, K.A.**, C.J. Yip, and S. Sreekantan, *Synthesis of (Bi_{0.5}Na_{0.5})TiO₃ (BNT) and Pr doped BNT using the soft combustion technique and its properties*. *Journal of Alloys and Compounds*. 2011, **509**(6): p. 2936-2941. [△](#)
 52. Ng, C.Y. and **K.A. Razak**, *Properties of praseodymium-doped bismuth potassium titanate (Bi_{0.5}K_{0.5}TiO₃) synthesised using the soft combustion technique*. *Journal of Alloys and Compounds*. 2011, **509**(3): p. 942-947. [△](#)

53. W.K. Tan, **K. Abdul Razak**, K. H. Tan, Zainovia Lockman, Oxidation of etched Zn foil for the formation of ZnO nanostructure (2011), Journal of Alloy and Compounds, 2011, 509(24): 6806-6811 [△](#)
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