

CURRICULUM VITAE

PERSONAL DATA

Name	Mohammed Khalil Mohammed Ali
Nationality	Sudanese
Position	Assistant Professor - Physics Department - College of Science - Imam Mohammad Ibn Saud Islamic University (IMSIU)- Kingdom of Saudi Arabia.
E-Mail	mkali@imamu.edu.sa
Phone	+966544830694

EDUCATION

Year	Academic Degree	Institution
2014	PH. D In Physics (nanomaterials)	Universiti Sains Malaysia (USM), Malaysia.
2005	M. Sc. In Solid State Physics,	Sudan University of Science & Technology (SUST), Khartoum, Sudan
2002	B. Sc. (Honor) In Physics	Sudan University of Science & Technology (SUST), Khartoum, Sudan.

WORK EXPERIENCE

Period	Position	Address
1/02/2016 Up to Now	Assistant Professor	Physics Department - College of Science - Imam Mohammad Ibn Saud Islamic University (IMSIU)-Ministry of Education, Riyadh, Kingdom of Saudi Arabia.
21/01/2003 to 1/02/2016	Assistant Professor (Researcher)	Material and Electronics Research Institute – National Center for Research -Khartoum- Sudan-P.O Box 2404
2007 to 2009	Head of Semiconductors and electronics Department	National Center for Research – Material and Electronics Research Institute – Khartoum- Sudan Sudan-P.O Box 2404
2009 to 2012	Graduate Teaching Assistant (GA)	School of Physics - Universiti Sains Malaysia (USM), Penang, Malaysia.

2005 to 2008	Lecturer	Sudan University of Science & Technology (SUST)/ Khartoum, Suda, Physics Department.
2005 to 2008	Lecturer	Omdurman Islamic University- Faculty of Science & Technology - Physics Department.
2003 to 2005	Teaching Assistant	Sudan University of Science & Technology (SUST)/ Khartoum, Sudan, Lecturer at Physics Department.

RESEARCH INTERESTS

Fabrication and Characterization of Micro & Nano optoelectronics devices materials, Solar energy (Solar Thermal and Photovoltaic), Fabrication, Characterization and spectroscopic studies of nanomaterials (Raman, PL, XRD, EDX, SEM, FTIR, FESEM, AFM and UV-Vis), Fabrication of semiconductors nanostructures (Thin film depositions, epitaxial growth on different substrates. Fabrication, Characterization of the flexible and organic (polymers) solar cells and optoelectronic devices, Nano Physics & Technology and Laser Physics.

PUBLICATIONS

- MKM Ali**, AO Elzupir, Al Aljameel and KH Ibnaouf Synthesis, Crystal Structures, and Nonlinear Optical Properties of Chalcone Doped by Titanium Dioxide Nanoparticles for Solar Cell Application Journal of Nanoelectronics and Optoelectronics-17(9) 1308-1314-2022/9/1
- O Aldaghri, A Modwi, H Idriss, **MKM Ali**, KH Ibnaouf. Cleanup of Cd II from water media using Y2O3@ gC3N4 (YGCN) nanocomposite. Diamond and Related Materials 129, 109315.2022.
- Murtala Uba Mohammed, Murtala M Badamasi, Fahad Usman, Zakariyya Uba Zango, John Ojur Dennis, Abdul'aziz I Aljameel, **Mohammed Khalil Mohammed Ali**, Osamah A Aldaghri, Khalid Hassan Ibnaouf, Tasneem Mohammed Hussein Towards Urban Sustainability: Developing Noise Prediction Model in an Informal Setting Applied Sciences 12 (18), 9071.2022.
- J Ojur Dennis, **MKM Ali**, KH Ibnaouf, O Aldaghri, NFM Abdel All, AA Adam, ... Effect of ZnO Nanofiller on Structural and Electrochemical Performance Improvement of Solid Polymer Electrolytes Based on Polyvinyl Alcohol–Cellulose Acetate–Potassium Molecules 27 (17), 5528.2022.
- AA Adam, **MKM Ali**, JO Dennis, H Soleimani, MFBA Shukur, KH Ibnaouf, ... Innovative Methylcellulose-Polyvinyl Pyrrolidone-Based Solid Polymer Electrolytes Impregnated with Potassium Salt: Ion Conduction and Thermal Properties. Polymers 14 (15), 3055.2022.
- ZU Zango, JO Dennis, Al Aljameel, F Usman, **MKM Ali**, BA Abdulkadir, ... Effective Removal of Methylene Blue from Simulated Wastewater Using ZnO-Chitosan Nanocomposites: Optimization, Kinetics, and Isotherm Studies Molecules 27 (15), 474620.22.
- KHI O Aldaghri, A Modwi, H Idriss, B Mustafa, **MKM Ali** Photodecolorization of synthetic dye Congo red from the aquatic system by CaMgO2@ g-C3N4 nanocomposite.20.22.
- O Aldaghri, A Modwi, H Idriss, B Mustafa, **MKM Ali**, KH Ibnaouf. Photodecolorization of synthetic dye Congo red from the aquatic system by CaMgO2@ g-C3N4 nanocomposite.2022.
- JO Dennis, AA Adam, **MKM Ali**, H Soleimani, MFBA Shukur, KH Ibnaouf, ...Substantial proton ion conduction in methylcellulose/pectin/ammonium chloride based solid nanocomposite polymer electrolytes: effect of ZnO nanofiller.20.22.Membranes 12 (7), 706

10. **MKM Ali**, A Modwi, H Idriss, O Aldaghri, M Ismail, KH Ibnaouf Detoxification of Pb (II) from aquatic media via CaMgO₂@ g-C₃N₄ nanocomposite. *Materials Letters*, 132501.2022.
11. OA Aldaghri, BA El-Badry, **M.K.M. Ali**, KH Ibnaouf. Effect of Gamma Irradiation on the Optical Properties of the Conjugated Copolymer B-co-MP Applied Sciences 2021. 12 (3), 1606
12. MA Al-Balushi, NM Ahmed, SH Zyoud, **MK Mohammed Ali**, H Akhdar, Ionization Radiation Shielding Effectiveness of Lead Acetate, Lead Nitrate, and Bismuth Nitrate-Doped Zinc Oxide Nanorods Thin Films: A Comparative Evaluation. 2021. *Materials* 15 (1), 3
13. F Usman, JO Dennis, AI Aljameel, **M.K.M. Ali**, O Aldaghri, KH Ibnaouf, Plasmonic Biosensors for the Detection of Lung Cancer Biomarkers: A Review *Chemosensors* 9 (11), 326
14. MS Almomani, NM Ahmed, M Rashid, **MKM Ali**, H Akhdar, O Aldaghri, . Enhancement of temperature fluorescence brightness of Zn@ Si Core-Shell quantum dots produced via a unified strategy.2021. *Nanomaterials* 11 (11), 3158
15. AI Aljameel, **MKM Ali**, Zinc oxide thin films preparation by chemical methods onto Si substrate for solar cell application *Journal of Non-Oxide Glasses* 2021, Vol 13 (2), 21-29
16. AM Ahmed Ali, NM Ahmed, NA Kabir, **MKM Ali**, H Akhdar, OA Aldaghri, Investigation of X-ray Radiation Detectability Using Fabricated ZnO-PB Based Extended Gate Field-Effect Transistor as X-ray Dosimeters *Applied Sciences* 2021, 11 (23), 11258
17. K.H. IBNAOUF, A.O. ELZUPIR, M.A. IBRAHEM, **M.K.M. ALI**, and MUHANNA K. AL-MUHANNA. Optical Characteristics and Structural Properties of 3-(pNitrophenyl)-5-phenyl-1H-pyrazole. *Journal of Electronic Materials* February 2019. Volume 48, Issue 2, pp 861–866
18. A.O.Elzupir, **M.K.M. Ali**, R.K.Hussein, M.A.Ibrahem, Muhanna K.Al-Muhanna and K.H.Ibnaouf. Molecular structure, frontier molecular orbital and spectral analysis of dimethylamino chalcones efficient lasing dyes *Journal of Molecular Structure*. Volume 1178, 15 February 2019, Pages 285-289
19. K. H. Ibnaouf, R. Alhathloul and **M. K. M. Ali**, Title: Photophysical properties of a laser dye (LD-473) in different solvents. *Optics & Laser Technology* Volume 102, January 2018, Pages 111–114
20. A. Modwi, **M. K. M. Ali**, Kamal K. Taha, M. A. Ibrahem, H. M. El-Khair, M. H. Eisa, M. R. Elamin, O. Aldaghri, Raed Alhathloul, K. H. Ibnaouf , Structural and optical characteristic of chalcone doped ZnO nanoparticles, *Journal of Materials Science: Materials in Electronics*, Volume --, No.---, 14 November 2017. pages 1–6
21. **M. K. M. Ali**, A. O. Elzupirc, M. A. Ibrahem, H. Idriss, A. S. Alaamer, M. A. Alrajhi and K. H. Ibnaouf, Characterization of optical and morphological properties of chalcone thin films for optoelectronics applications *Optik - International Journal for Light and Electron Optics*. Volume 145, September 2017, Pages 529-533
22. K. H. Ibnaouf, **M. K. M. Ali**, A. O. Elzupirc, M. A. Ibrahem, H. Idriss, A. S. Alaamer, M. A. Alrajhi and M.S. Alsahhi. Spectral and ASE Properties of an Amino Chalcone 1-(4- CHLOROPHENYL)-3-(4- N, N DIMETHYLAMINO PHENYL)-2-PROPEN-1- One. *Digest Journal of Nanomaterials and Biostructures*. Vol. 12, No. 2, 2017, Pages. 423 – 430.
23. Abd-Alghafour, N. M, Ahmed, NM,Hassan, Z. Mohammad, Sabah M. **Ali, M. K. M.** Characterization of V₂O₅ nanorods grown by spray pyrolysis technique. *journal of materials science-materials in electronics*. May 2016 Volume: 27 Issue: 5 Pages: 4613-4621.
24. Abd-Alghafour, N. M, Ahmed, NM,Hassan, Z. Mohammad, Sabah M. **Ali, M. K. M.** Structural, Morphological and Optical Properties of V₂O₅ Nanorods Grown Using Spray Pyrolysis Technique at Different Substrate Temperature. *Nanoscience and NanotechnologyL*. February 2016. Volume: 8 Issue: 2 Pages: 181-186.

25. **M. K. M. Ali**, K. Ibrahim, M. H. Eisa, M. G. Faraj, Osama S. Hamad and F. Azhari Indium tin oxide thin films deposited by DC magnetron sputtering on polyethylene terephthalate substrate, Romanian Journal Of Physics, 2011. 56, Numbers 5-6, ISSN 1221-146X).
26. **M. K. M. Ali**, K. Ibrahim, E.M. Mkawi and M.Z. Pakhuruddin Surface morphology and structural properties of silver thin films prepared on polyethylene terephthalate (PET) substrate by screen printing. Journal of Advanced Materials Research, 2012. 364. Pages.110-114.
27. **M. K. M. Ali**, K. Ibrahim, M. Z. Pakhuruddin and M.G. Faraj Optical and electrical properties of indium tin oxide thin films prepared by thermal evaporation method on polyethylene terephthalate substrate. Journal of Advanced Materials Research, 2012. 545. p 393-398.
28. **M. K. M. Ali**, K. Ibrahim and A.Salhin Effect of thickness on boron-doped silicon thin film deposited onto silver-aluminium back contact-coated plastic substrate by screen printing. International Journal of Electrochemical Science, 2012. 7. p. 13093 – 13105.
29. **M. K. M. Ali**, K. Ibrahim and E.M. Mkawi Silver - aluminum alloy thin film on plastic substrate by screen printing for solar cell back contact application. Journal of Materials Science in Semiconductor Processing, June 2013. 16 (3). p. 593–597.
30. **M. K. M. Ali**, K. Ibrahim, E.M. Mkawi and A.Salhin Characterization of phosphoric acid doped n-type silicon thin films printed on ITO coated PET substrate. International Journal of Electrochemical Science, 2013,8, p. 535 – 547.
31. **M. K. M. Ali**, K. Ibrahim and M. G. Faraj. PET as a plastic substrate for the flexible optoelectronic applications, Journal of Optoelectronics and Advanced Materials Rapid Communications. 5 (8), (2011), p.879–8.
32. O. F. Farhat, M. M. Halim, M. J. Abdullah, **M. K. M. Ali** and Naser M. Ahmed Fabrication and characterization of ZnO nanowires by wet oxidation of Zn thin film deposited on Teflon substrate, Superlattices and Microstructures October 2015 Volume 86, p. 236-242.
33. M. kawi, E. M., K. Ibrahim, **M. K. M. Ali**, M. A. Farrukh, and A. S. Mohamed. "The effect of dopant concentration on properties of transparent conducting Al-doped ZnO thin films for efficient Cu₂ZnSnS₄ thin-film solar cells prepared by electrodeposition method." Applied Nanoscience (2015): 1-9.
34. M. kawi, E. M., K. Ibrahim, **M. K. M. Ali**, M. A. Farrukh, and A. S. Mohamed. "Electrodeposited ZnS Precursor Layer with Improved Electro-optical Properties for Efficient Cu₂ZnSnS₄ Thin-Film Solar Cells." Journal of Electronic Materials: (2015)1-8.
35. Omar F. Farhat, Mohd M. Halim, Mat J. Abdullah, **Mohammed K. M. Ali** and Nageh K. Allam . Morphological and structural characterization of single-crystal ZnO nanorod arrays on flexible and non-flexible substrates. Beilstein J. Nanotechnol. 2015, 6, 720-725.
36. O. F. Farhat, M. M. Halim, M. J. Abdullah, **M. K. M. Ali**, Naser M. Ahmed and Nageh K. Allam. Growth of vertically aligned ZnO nanorods on Teflon as a novel substrate for low-power flexible light sensors. Appl. Phys. A (2015) 119:1197–1201 DOI 10.1007/s00339-015-9177.1.
37. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali**, K.A.M. Saron, M.A. Farrukh, Nageh K. Allam, A.S. Mohamed. Aqueous synthesis of visible-light photoactive cuboid Cu₂ZnSnS₄ nanocrystals using rotary evaporation Materials Letters 125 (2014) 195–197.
38. E.M. Mkawi , K. Ibrahim , **M. K. M. Ali**, M. A. Farrukh and A. S. Mohamed. Dependence of the properties of copper zinc tin sulfide thin films prepared by electrochemical deposition on sulfurization temperature" (2014) J. Mater. Sci: Mater. Electron Vol: 25(2) pp: 857-863.
39. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali**, K.A.M. Saron, M.A. Farrukh, Nageh K. Allam, A.S. Mohamed. Effect of complexing agents on the electrodeposition of Cu-Zn-Sn metal precursors and corresponding Cu₂ZnSnS₄-based solar cells Journal of Electroanalytical Chemistry. volume 735, 1 December 2014, Pages 129–135.

40. M. G. Faraj, K. Ibrahim, M. H. Eisa, **M. K. M. Ali** and F. Azhari. Investigation on molybdenum thin films deposited by dc sputtering on polyethylene terephthalate substrate. International J. of Polymeric Materials, Volume 59, Issue 8 August (2010), p. 622 - 627.
41. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali**, M. A. Farrukh and Nageh K. Allam Influence of precursor thin films stacking order on the properties of Cu₂ZnSnS₄ thin films fabricated by electrochemical deposition method . Superlattices and Microstructures 76 (2014), p. 339–348.
42. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali** and A.Salhin, Dependence of copper concentration on the Properties of Cu₂ZnSnS₄ thin films prepared by electrochemical method . Int. J. Electrochem. Sci., 8 (2013), p. 359 -368.
43. M.A. Qaed, K. Ibrahim, Ruchi Srivastava, **M. K. M. Ali** and A. Salhin Structural and optical characterization of InGaN nanoparticles synthesized at low temperature, Materials Letters, 2013.99. p. 128–130.
44. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali** M. A. Farrukh and Nageh K. Allam, Solvent Solution Dependent Properties of Nonstoichiometric Cubic Cu₂ZnSnS₄ Nanoparticles- Accepted in journal of Chemical Physics Letters, volume 608, 21 July 2014, p. 393–397.
45. M. G. Faraj, K. Ibrahim, M. H. Eisa, **M. K. M. Ali** and M. Z. Pakhuruddin, Comparison of Zinc Oxide thin films deposited on the glass and polyethylene terephthalate substrates by thermal evaporation technique for applications in solar cells, Journal of Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), Vol 4 ISS.10(2010), p. 1587-1590.
46. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali** and M. A. Farrukh, Influence of triangle wave pulse on the properties of Cu₂ZnSnS₄ thin films prepared by single step electrodeposition- Journal of Solar Energy Materials and Solar Cells, volume 130, November 2014, Pages 91–98.
47. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali**, K.A.M. Saron, M.A. Farrukh, Nageh K. Allam, A.S. Mohamed. Influence of substrate temperature on the properties of electrodeposited kesterite Cu₂ZnSnS₄ (CZTS) thin films for photovoltaic applications. Journal of Materials Science: Materials in Electronics. 26 (2015). 222-228.
48. E.M. Mkawi, K. Ibrahim, **M.K.M. Ali**, M.A. Farrukh, A. Salhin Mohamed, "Synthesized and Characterization of Cu₂ZnSnS₄ (CZTS) Thin Films Deposited by Electrodeposition Method", Applied Mechanics and Materials, Jul. 2013 Vol. 343, pp. 85-89,
49. M. Z. Pakhuruddin, K. Ibrahim, **M. K. M. Ali** and A. Abdul Aziz, Surface morphology and optical reflection of thermally evaporated thin film Al-doped silicon on plastic substrates for solar cells applications. Conference publications, Nanotech Malaysia 2010: International Conference on Enabling Science and Nanotechnology, 1-3 December, 2010, KLCC, Malaysia ,978-1-4244-PrintISBN: 978-1-4244-8853-7,INSPEC Accession Number: 11773819©2010IEEE.
50. **M. K. M. Ali**, K. Ibrahim, K. M. Sulieman, M.R. Hashimand Osama S Hamad Characterization of zinc oxide thin films deposited by DC magnetron sputtering on polyethylene terephthalate substrate, 1st CONVEEESH, International Conference on Engineering, Environment, Economic, Safety and Health, & 10th Senvar International Seminar on Environment and Architecture Science & Engineering for better life, 26th to 27th October (2009), Manado, Indonesia.
51. **M. K. M. Ali**, K. Ibrahim, M. H. Eisa, M. G. Faraj, Osama S. Hamad and F. Azhari, Characterization of polyethylene terephthalate substrate for optoelectronic applications, 1stCONVEEESH, International Conference on Engineering, Environment, Economic, Safety and Health, & 10th Senvar International Seminar on Environment and Architecture Science &Engineering for better life, 26th to 27th October (2009), Manado, Indonesia.

52. **M. K. M. Ali**, K. Ibrahim, M. Z. Pakhuruddin and M.G. Faraj. Evaporation method on polyethylene terephthalate substrate. International Conference on The advancement Of Material & Nanotechnology ICAMN II 2010. from 29th November to 1st December 2010. Malaysia.
53. **M. K. M. Ali**, K. Ibrahim, M.Z. Pakhuruddin and E.M. Mkawi Surface morphology and structural properties of silver thin films prepared on polyethylene terephthalate (PET) substrate by screen printing technique. International Conference for Nanomaterials Synthesis and Characterization 2011 (INSC 2011) ,4 –5th July 2011 , Selangor Malaysia.
54. E.M. Mkawi, K. Ibrahim, **M. K. M. Ali**, M. A. Farrukh and Abdussalam Salhin Mohamed - Synthesized and characterization of Cu₂ZnSnS₄(CZTS) thin films deposited by electrodeposition method, the 2013 2nd International Conference on Sustainable Construction Materials and Computer Engineering (ICSCMCE 2013) June 1-2, 2013, Singapore.
55. **M. K. M. Ali**, K. Ibrahim, M. H. Eisa, M. G. Faraj, Osama S. Hamad and F. Azhari Characterization of Indium Tin Oxide Thin Films Deposited by DC Magnetron Sputtering on Polyethylene Terephthalate Substrate, 1st CONVEESH, International Conference on Engineering, Environment, Economic, Safety and Health, & 10th Senvar International Seminar on Environment and Architecture Science & Engineering for better life, 26th to 27th October (2009)(<http://acta.fih.upt.ro/pdf/2009-3/ACTA-2009-3-14-Event-3.pdf>), Manado, Indonesia.
56. F. Azhari, K. Ibrahim, **M. K. M. Ali**, M. H. Khalid, M. G. Faraj and Liu Chao-Zhuo. Characterization of Aluminium Deposited on PET Substrate by DC Sputtering and Evaporation Methods, 7th Asia Pacific Conference on Sustainable Energy and Environmental Technologies (7th APCSEET), 15th to 17th October (2009)(<http://apcseet2009.upc.edu.cn>) Qingdao, China.
57. M. Z. Pakhuruddin, K. Ibrahim, **M. K. M. Ali** and A. Abdul Aziz Surface morphology and optical reflection of thermally evaporated thin film Al-doped silicon on plastic substrates for solar cells applications. Nanotech Malaysia 2010: International Conference on Enabling Science and Nanotechnology, 1-3 December, 2010, KLCC, Malaysia.
58. M. G. Faraj, K. Ibrahim, M. H. Eisa, **M. K. M. Ali** and F. Azhari, Comparative studies of the Properties of molybdenum thin films deposited on different substrates by dc sputtering, The 2nd ISESCO International Workshop and Conference on Nanotechnology 2010 (IWCN2010), 25th to 27th January (2010)-(<http://pkukmweb.ukm.my/~iwcN2010/>), Kuala Lumpur, Malaysia.

Conferences

1. International Conference for Nanomaterials Synthesis and Characterization 2011 (INSC 2011),4 –5th July 2011 , Selangor Malaysia.
2. International Conference on The advancement Of Material & Nanotechnology ICAMN II 2010. from 29th November to 1st December 2010. Malaysia.
3. The 2013 2nd International Conference on Sustainable Construction Materials and Computer Engineering (ICSCMCE 2013) June 1-2, 2013, Singapore.
4. 1st CONVEESH, International Conference on Engineering, Environment, Economic, Safety and Health, & 10th Senvar International Seminar on Environment and Architecture Science & Engineering for better life, 26th to 27th October (2009), Manado, Indonesia.
5. 7th Asia Pacific Conference on Sustainable Energy and Environmental Technologies (7th APCSEET), 15th to 17th October (2009) Qingdao, China.