Profile Image

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CONTACT

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FACULTY
Fakulti Sains Dan Teknologi

SUPERVISION

	COMPLETED	ONGOING
PhD	1	2
Master	1	0

AREAS OF EXPERTISE

- Other Theoretical And Computational Physics N.e.c
- Condensed Matter Physics

ACADEMIC QUALIFICATION

- 2011 **PhD** - Fizik
- 2008 **Master** - Fizik
- 2006 **Bachelor** - Fizik Industri

RESEARCH

1. **A FIRST PRINCIPLES STUDY OF GRAPHENE, GRAPHENE-DOPED METAL AND THE INTERACTION WITH GLUCOSE**
   2026 | GERAN PENYELIDIKAN FUNDAMENTAL | ON GOING | MAIN RESEARCHER
2. **UNRAVELING THE MECHANISM OF DUAL ENZYME CATALYSIS BY NOVOZYME AND LIPOZYME FOR KOJIC ACID MONOOLEATE SYNTHESIS USING DENSITY FUNCTIONAL THEORY**
   2024 | GERAN KPT | ON GOING | CO-RESEARCHER
3. **DENSITY FUNCTIONAL THEORY STUDY (DFT) STUDY OF INTERACTIONS BETWEEN PHOTOCATALYST-BIOADSORBENTS (O-PYRITE/CHITOSAN)**
   2019 | GERAN SEPADAN AGENSI KERAJAAN | COMPLETED | MAIN RESEARCHER
4. **STRUCTURAL AND PHYSICOCHEMICAL STUDIES OF PALLADIUM(II) WITH TETRAAZA SALT LIGANDS BY NON-TEMPLATING SYNTHETIC PATHWAY**
   2019 | GERAN KPT | COMPLETED | CO-RESEARCHER
5. **ELECTRONIC PROPERTIES OF ARSENENE LAYER CALCULATED USING DENSITY FUNCTIONAL THEORY**
   2018 | GERAN PENYELIDIKAN USIM | COMPLETED | MAIN RESEARCHER

RESEARCH

6. MODEL GANTANG STANDARD BERASASKAN SISTEM METRIK UNTUK PEMBAYARAN ZAKAT DI MALAYSIA

2017 | GERAN SEPADAN INDUSTRI | COMPLETED | CO-RESEARCHER

7. ELECTRICAL STUDIES OF RENEWABLE BIONANOCOMPOSITE BIOPOLYMER ELECTROLYTE FOR DYE SENSITIZED SOLAR CELL (DSSC) APPLICATION

2016 | GERAN KPT | COMPLETED | CO-RESEARCHER

8. DEVELOPMENT OF THERMOELECTRIC ZT MEASUREMENT FACILITY UNDER TEMPERATURE RANGE OF 300K-700K USING NOVEL "OPEN-SHORT CIRCUIT" TECHNIQUE

2015 | GERAN PENYELIDIKAN JANGKA PENDEK | COMPLETED | CO-RESEARCHER

9. DETERMINATION OF ZT FOR SEGMENTED THERMOELECTRIC GENERATOR (TEG) UNDER LARGE TEMPERATURE DIFFERENCE (L?T) USING "OPEN-SHORT CIRCUIT" TECHNIQUE

2015 | GERAN KPT | COMPLETED | CO-RESEARCHER

10. AB INITIO CALCULATION OF VIBRATIONAL SPECTRA OF ZINC CLUSTER OF THE STANNITE-KESTERITE AND THE RAMAN SPECTRA

2013 | GERAN KPT | COMPLETED | MAIN RESEARCHER

11. DENSITY FUNCTIONAL THEORY (DFT) CALCULATION OF SUPERCONDUCTIVITY OF CAC6, BAC6, YBC6, C6CAC6 AND OTHER GRAPHITE COMPOUNDS

2013 | GERAN PENYELIDIKAN USIM | COMPLETED | MAIN RESEARCHER

PUBLICATION

1. A FLASH FLOOD WARNING SYSTEM USING SOLAR POWERED NODE MCU

JOURNAL OF ENGINEERING TECHNOLOGY AND APPLIED PHYSICS

2025 | JOURNAL | MYCITE | CORRESPONDING AUTHOR

2. PRELIMINARY DFT STUDY OF THE ENERGY GAP OF GINGEROL

INTERNATIONAL SEMINAR ON ISLAM AND SCIENCE (SAIS) 2025

2025 | PROCEEDING | NON-INDEX | MAIN AUTHOR

3. STRUCTURAL AND ELECTRONIC PROPERTIES OF SINGLE LAYER FLAT STANENE: A COMPUTATIONAL STUDY

2ND INTERNATIONAL SCIENCE, ENGINEERING AND TECHNOLOGY COLLOQUIUM (ISETC 2025)

2025 | PROCEEDING | NON-INDEX | MAIN AUTHOR

4. SOROTAN 2: KEHILANGAN YANG MENGINSAFKAN

ASPIRASI DAN MEMOIR, HAL EHWAL PELAJAR DAN ALUMNI

2025 | CHAPTER IN BOOK | MAIN AUTHOR

5. THE STRUCTURAL STUDIES OF LAWSONE IN HENNA: THE FIRST PRINCIPLE APPROACH

THE INTERNATIONAL SEMINAR ON ISLAM AND SCIENCE (SAIS 2024)

2024 | PROCEEDING | NON-INDEX | MAIN AUTHOR

PUBLICATION

6. THE SYNTHESIS OF OXALATE-MODIFIED PYRITE/CHITOSAN AS AN ANTIBACTERIAL COMPOSITE

BIOINSPIRED, BIOMIMETIC AND NANOBIOMATERIALS

2023 JOURNAL SCOPUS CO-AUTHOR

7. PHOTOCATALYTIC DEGRADATION OF HUMIC ACID ON OXALATE-PYRITE/CHITOSAN

6TH INTERNATIONAL CONFERENCE OF CHEMICAL ENGINEERING AND INDUSTRIAL BIOTECHNOLOGY (ICCEIB2022)

2023 PROCEEDING NON-INDEX CO-AUTHOR

8. DETERMINATION OF THERMOELECTRIC PROPERTIES OF FLAT LAYER ARSENENE USING BOLTZMANN TRANSPORT EQUATION: A COMPUTATIONAL STUDY

PERSIDANGAN FIZIK KEBANGSAAN 2022

2022 PROCEEDING NON-INDEX MAIN AUTHOR

9. IMPACT OF DOPING AND ADDITIVE APPLICATIONS ON PHOTOCATALYST TEXTURAL PROPERTIES IN REMOVING ORGANIC POLLUTANTS: A REVIEW

CATALYSTS

2021 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

10. THE STUDY OF A STRUCTURAL AND ELECTRONIC PROPERTIES OF TWO-DIMENSIONAL FLAT LAYER ARSENENE USING PLANEWAVES DENSITY FUNCTIONAL CALCULATION

SOLID STATE PHENOMENA

2020 JOURNAL SCOPUS MAIN AUTHOR

11. INTRODUCTION TO VIBRATIONS AND WAVES

2019 BOOK MAIN AUTHOR

12. THE BAND STRUCTURE OF A RARE EARTH ELEMENT OF PROMETHIUM (III) OXIDE (PM2O3) CALCULATED USING DENSITY FUNCTIONAL THEORY

JOURNAL OF PHYSICS: CONFERENCE SERIES

2018 JOURNAL SCOPUS MAIN AUTHOR

13. A FIRST PRINCIPLE STUDY OF BAND STRUCTURE OF TETRAGONAL BARIUM TITANATE

AIP CONFERENCE PROCEEDINGS

2017 JOURNAL WOS MAIN AUTHOR

14. PROPERTIES OF SILICON CARBIDE POLYTYPES UNDER HIGH PRESSURE INFLUENCE CALCULATED USING DFT

SOLID STATE PHENOMENA, SOLID STATE SCIENCE AND TECHNOLOGY XXIX

2017 JOURNAL SCOPUS CO-AUTHOR

15. FIRST PRINCIPLES CALCULATION OF ?-PHASE OF SOLID OXYGEN

ACTA PHYSICA POLONICA A

2016 JOURNAL WOS CO-AUTHOR

16. ELECTRONIC STRUCTURE AND PHASE STABILITY OF LOW-TEMPERATURE BA (FE1-XNIX) 2AS2 SUPERCONDUCTOR

AIP CONFERENCE PROCEEDINGS

2016 JOURNAL WOS CO-AUTHOR

PUBLICATION

17. DENSITY FUNCTIONAL THEORY (DFT) CALCULATION OF BAND STRUCTURE OF KESTERITE

ADVANCED MATERIALS RESEARCH

2015 JOURNAL SCOPUS MAIN AUTHOR

18. THE STUDY OF BAND STRUCTURE OF GRAPHITE INTERCALATION COMPOUND CONTAINING SODIUM CALCULATED USING DENSITY FUNCTIONAL THEORY

JOURNAL OF PHYSICS: CONFERENCE SERIES

2015 JOURNAL SCOPUS MAIN AUTHOR

19. THE ELECTRONIC STRUCTUREOF PEROVSKITE-TYPE MATERIAL BARIUM TITANATE (BATIO3) CALCULATED USING DENSITY FUNCTIONAL THEORY(DFT)

THE 5TH INTERNATIONAL CONFERENCE ON SOLID STATE SCIENCE AND TECHNOLOGY 2015

2015 PROCEEDING NON-INDEX MAIN AUTHOR

20. FIRST PRINCIPLES STUDY OF BA(FE1-XNIX)2AS2 SUPERCONDUCTOR

THE 5TH INTERNATIONAL CONFERENCE ON SOLID STATE SCIENCE AND TECHNOLOGY 2015

2015 PROCEEDING NON-INDEX CO-AUTHOR

21. PENGGUNAAN MEDIA SOSIAL DALAM PROSES PENGAJARAN DAN PEMBELAJARAN (PNP) DI PUSAT TAMHIDI, UNIVERSITI SAINS ISLAM MALAYSIA (USIM)

PROSIDING KONVENSYEN SAINS ISLAM 2015 (KONGSI15) PERINGKAT KEBANGSAAN

2015 PROCEEDING NON-INDEX CO-AUTHOR

22. THE ENERGY BAND STRUCTURE OF A X FE 2 SE 2 (A = K, RB) SUPERCONDUCTORS

AIP CONFERENCE PROCEEDINGS

2014 JOURNAL SCOPUS CO-AUTHOR

23. AB INITIO CALCULATION OF VIBRATIONAL FREQUENCIES OF ZNSE AND THE RAMAN SPECTRA

AIP CONFERENCE PROCEEDINGS

2014 JOURNAL SCOPUS MAIN AUTHOR

24. NEW APPROACH IN DETERMINING GRAVITATIONAL FORCES OF THE SUN AND JUPITER

POSTGRADUATE COLLOQUIUM FST 2014 (PCFST2014)

2014 PROCEEDING NON-INDEX CO-AUTHOR

25. CLUSTERS OF GAAS PREPARED BY QUANTUM MECHANICAL DFT AND THE NANOWIRE RAMAN SPECTRA

SAINS MALAYSIANA

2013 JOURNAL WOS MAIN AUTHOR

26. DFT CALCULATION OF VIBRATIONS IN THE CLUSTERS OF ZINC AND OXYGEN ATOMS, AHMAD NAZRUL ROSLI, HASAN A. KASSIM, AND KESHAV N. SHRIVASTAVA, SAINS MALAYSIANA, 42 (5) 649-654 (2013).

SAINS MALAYSIANA

2013 JOURNAL WOS MAIN AUTHOR

PUBLICATION

27. THE RAMAN SPECTRA OF NANOCOMPOSITE CLUSTERS OF ATOMS IN PHOSPHOROUS-SELENIUM GLASSY STATE, AHMAD NAZRUL ROSLI, HASAN A. KASSIM, KESHAV N. SHRIVASTAVA AND V. RADHIKA DEVI, ADVANCED MATERIALS RESEARCH 667, 99-103 (2013).

ADVANCED MATERIALS RESEARCH

2013 JOURNAL WOS MAIN AUTHOR

28. AB INITIO CALCULATION OF VIBRATIONAL FREQUENCIES OF ZNSE AND THE RAMAN SPECTRA, AHMAD NAZRUL ROSLI, NORIZA AHMAD ZABIDI AND HASAN ABU KASSIM, AIP CONFERENCE PROCEEDINGS 1588, 265 (2014); DOI: 10.1063/1.4866958.

FRONTIERS IN PHYSICS IMFP 2013, 27 – 30 AUGUST 2013, AWANA GENTING, PAHANG.

2013 PROCEEDING NON-INDEX MAIN AUTHOR

29. THE ENERGY BAND STRUCTURE OF A X FE 2 SE 2 (A = K, RB) SUPERCONDUCTORS, NORIZA A. ZABIDI, MUHD. Z. AZHAN, A. N. ROSLI, AND KESHAV N. SHRIVASTAVA AIP CONFERENCE PROCEEDINGS 1588, 281 (2014); DOI: 10.1063/1.4866961.

FRONTIERS IN PHYSICS IMFP 2013

2013 PROCEEDING NON-INDEX CO-AUTHOR

30. CLUSTERS OF GAAS PREPARED BY QUANTUM MECHANICAL DFT AND THE NANOWIRE RAMAN SPECTRA

NATIONAL PHYSICS CONFERENCES 2012

2012 PROCEEDING NON-INDEX MAIN AUTHOR

31. DENSITY-FUNCTIONAL THEORY OF VIBRATIONS IN NI1-XVX CLUSTERS.

JOURNAL OF CLUSTER SCIENCE

2011 JOURNAL WOS MAIN AUTHOR

32. DFT CALCULATION OF CLUSTERS OF BA AND O ATOMS AND THE RAMAN SPECTRA OF BARIUM PEROXIDE.

SPECTROCHIMICA ACTA PART A

2011 JOURNAL WOS MAIN AUTHOR

33. AB INITIO CALCULATION OF VIBRATIONAL FREQUENCIES OF ASO GLASS.

JOURNAL OF NON-CRYSTALLINE SOLIDS

2010 JOURNAL WOS MAIN AUTHOR

34. AB INITIO CALCULATIONS OF VIBRATIONAL FREQUENCIES IN A GLASSY STATE OF SELENIUM.

SAINS MALAYSIANA

2010 JOURNAL WOS MAIN AUTHOR

35. DFT CALCULATIONS OF VIBRATIONAL FREQUENCIES OF CARBON-NITROGEN CLUSTERS: RAMAN SPECTRA OF CARBON-NITRIDES

JOURNAL CLUSTER OF SCIENCE (SPRINGER)

2010 JOURNAL WOS MAIN AUTHOR

36. DFT CALCULATION OF CLUSTERS OF BA AND O ATOMS AND THE RAMAN SPECTRA OF BARIUM PEROXIDE.

ASIAN PHYSICS SYMPOSIUM, APS BANDUNG

2010 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

37. CLUSTERS OF GE AND O ATOMS AND THE RAMAN SPECTRA OF VITREOUS GEO2.

PERSIDANGAN FIZIK KEBANGSAAN, PERFIK 2010

2010 PROCEEDING NON-INDEX MAIN AUTHOR

38. DENSITY FUNCTIONAL THEORY CALCULATION OF ADSORPTION OF NACL ON CHLOROPHYLL.

MALAYSIAN JOURNAL OF SCIENCE

2009 JOURNAL WOS MAIN AUTHOR

39. DFT CALCULATION OF VIBRATIONAL FREQUENCIES IN CLUSTERS OF FE AND AS ATOMS

INTERNATIONAL WORKSHOP ON ADVANCED MATERIAL FOR NEW AND RENEWABLE ENERGY

2009 PROCEEDING NON-INDEX MAIN AUTHOR

40. GRAPHENE INFRARED SPECTROSCOPY: DFT VIBRATIONAL FREQUENCIES

PROGRESS OF PHYSICS RESEARCH IN MALAYSIA: PERFIK2009

2009 PROCEEDING NON-INDEX MAIN AUTHOR

41. DFT DETERMINATION OF LAW OF FORCE IN FE AND P CLUSTERS OF ATOMS

FRONTIERS IN PHYSICS: 3RD INTERNATIONAL MEETING

2009 PROCEEDING NON-INDEX MAIN AUTHOR

42. AB INITIO CALCULATION OF VIBRATIONAL FREQUENCIES IN ASXS1−X GLASS AND THE RAMAN SPECTRA

NANOSCIENCE AND NANOTECHNOLOGY: INTERNATIONAL CONFERENCE ON NANOSCIENCE AND NANOTECHNOLOGY 2008

2008 PROCEEDING NON-INDEX MAIN AUTHOR

43. VON KLITZING''S CONSTANT AS A SPECIAL CASE OF GENERALIZED CONSTANTS

NANOSCIENCE AND NANOTECHNOLOGY: INTERNATIONAL CONFERENCE ON NANOSCIENCE AND NANOTECHNOLOGY 2008

2008 PROCEEDING NON-INDEX MAIN AUTHOR

44. NANOSOLIDS

2008 BOOK CO-AUTHOR

AWARDS/RECOGNITION

1. SILVER MEDAL

2025 INTERNATIONAL

2. ANUGERAH KUALITI FST 2024

2025 UNIVERSITY

3. ANUGERAH LIBATSAMA KOMUNITI (PROJEK SCIFEST)

2025 UNIVERSITY

AWARDS/RECOGNITION

4. TRAINER / FACILITATOR

PERSATUAN PELAJAR TEKNOLOGI INDUSTRI KESIHATAN SESI AKADEMIK 2024/2025

2025 UNIVERSITY

5. IOT-ENABLED NEAR INFRARED SENSOR SYSTEM FOR POLYAMIDE ABSORPTION CHARACTERIZATION

INNOVATION BANK CHALLENGE 2025

2025 ANTARABANGSA SILVER

6. STAF CONTOH FST MARCH 2022

2022 UNIVERSITY

7. STAF CONTOH BULANAN (SCB) FAKULTI SAINS & TEKNOLOGI (FST) BAGI BULANJANUARI 2021

2021 UNIVERSITY

8. STAF CONTOH BULANAN FST OGOS 2019

2019 STATE

9. ACADEMIC ADVISOR

USIM

2019 UNIVERSITY