Profile Image

# PROF. MADYA DR. SHIKH MOHD SHAHRUL NIZAN BIN SHIKH ZAHARI

PENSYARAH UNIVERSITI DS14

## CONTACT

Phone: 067980235

E-mail:

shahrul.zahari@usim.edu.my

Faculty: Fakulti Sains Dan

Teknologi

## **SUPERVISION**

PhD - Completed: 0, Ongoing: 0
Master - Completed: 3, Ongoing: 1

## AREAS OF EXPERTISE

Magnetic Materials

Nano Materials

Ionic Liquids

**Biomass Products** 

Cellulosic And Fibre Technology (including Nano Cellulosic Materials)

## **ACADEMIC QUALIFICATION**

PhD in Kimia (2016)

Master in Kejuruteraan Kimia (2011)

Bachelor in Kimia Perindustrian (2008)

## RESEARCH

1. CONVERSION OF SACRED-PAPER-DERIVED GLUCOSE TO OXYGEN-RICH GAS VIA ANAEROBIC DIGESTION AS AN ALTERNATIVE TO INCINERATING SACRED PAPER

2024 GERAN PENYELIDIKAN TRANSDISIPLINARI ON GOING MAIN

2. PROGRAM: CONVERSION OF WASTE-PAPER-DERIVED
GLUCOSE TO OXYGEN-RICH GAS VIA ANAEROBIC DIGESTION:
TOWARDS INTEGRATING NAQLI & AQLI PROJEK: PENUKARAN
GLUKOSA DARI KERTAS KEPADA GAS OKSIGEN MELALUI
PENCERNAAN ANAEROBIK SEBAGAI ALTERNATIF PEMBAKARAN
KERTAS S

2024 GERAN PENYELIDIKAN TRANSDISIPLINARI ON GOING CO-

3. STUDY OF MECHANICAL PROPERTIES OF POLYHYDROXYALKANOATES (PHA) BLEND FROM FOOD WASTE VIA ADDITIVE MANUFACTURING FOR MEDICAL APPLICATIONS

2020 GERAN KPT COMPLETED CO-RESEARCHER

4. CONVERSION OF PAPER WASTE CONTAINING HOLY WORDS TO LACTIC ACID: TOWARDS INTEGRATING NAQLI AND AQLI

2019 GERAN KPT COMPLETED MAIN RESEARCHER

5. PHYSICOCHEMICAL PROPERTIES OF MODIFIED PHOSPHOMOLYBDIC ACID/HYDROTALCITE CATALYZED HYDROLYTIC OXIDATION OF CELLULOSE TO FORMIC ACID

2019 GERAN KPT COMPLETED CO-RESEARCHER

## **RESEARCH**

6. MAGNETITE-POLYVINYLPYRROLIDONE NANOCOMPOSITES AS ADSORBENTS FOR THE REMOVAL OF OIL SPILLS FROM AQUEOUS ENVIRONMENTS

2018 GERAN PENYELIDIKAN USIM COMPLETED MAIN RESEARCHER

7. ELUCIDATION OF MEAT QUALITY IN HALAL AND NON-HALAL BROILER CHICKEN USING METABOLOMICS APPROACH

2017 GERAN KPT COMPLETED CO-RESEARCHER

#### **PUBLICATION**

1. CABARAN KONTEMPORARI DALAM MEMBENTUK KEPIMPINAN DAN SAHSIAH PELAJAR: STRATEGI PENGETUA-PENGETUA DI UNIVERSITI SAINS ISLAM MALAYSIA

SEMINAR PENGURUSAN ASRAMA PERINGKAT KEBANGSAAN 2024 (SPARK 2024)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

2. ISU DAN CABARAN MEDIA SOSIAL TERHADAP PEMBANGUNAN SAHSIAH PELAJAR: PENGALAMAN DALAM KALANGAN PENGETUA DI UNIVERSITI SAINS ISLAM MALAYSIA

SEMINAR PENGURUSAN ASRAMA PERINGKAT KEBANGSAAN (SPARK 2024)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

3. UTILIZATION OF TRIETHYLAMMONIUM HYDROGEN SULPHATE-MEDIATED SOLVENT FOR OPTIMIZATION OF ASIATICOSIDE EXTRACTION AND ANTIOXIDANT CAPACITY OF CENTELLA ASIATICA (L.)

JOURNAL OF KING SAUD UNIVERSITY - SCIENCE

2023 JOURNAL SCOPUS CORRESPONDING AUTHOR

4. IRON MAGNETIC NANOPARTICLES COATED WITH DIFFERENT LOADINGS OF POLYVINYLPYRROLIDONE: EVALUATION OF MAGNETIC PROPERTIES AND MORPHOLOGY

INORGANIC CHEMISTRY COMMUNICATIONS

2023 JOURNAL ERA CORRESPONDING AUTHOR

5. APPLICATIONS OF IONIC LIQUIDS FOR THE BIOCHEMICAL TRANSFORMATION OF LIGNOCELLULOSIC BIOMASS INTO BIOFUELS AND BIOCHEMICALS: A CRITICAL REVIEW

BIOCHEMICAL ENGINEERING JOURNAL

2023 JOURNAL ERA CO-AUTHOR

6. OPEFB PRETREATMENT USING THE LOW-COST N,N,N-DIMETHYLBUTYLAMMONIUM HYDROGEN SULFATE IONIC LIQUID UNDER VARYING CONDITIONS

SCIENTIFIC REPORTS

2023 JOURNAL SCOPUS CORRESPONDING AUTHOR

7. UNDERSTANDING THE CATION EXCHANGE AFFINITY IN MODIFIED-MMT CATALYSTS FOR THE CONVERSION OF GLUCOSE TO LACTIC ACID

**RSC ADVANCES** 

2023 JOURNAL ISI CORRESPONDING AUTHOR

8. DIRECT CATALYTIC CONVERSION OF CELLULOSE INTO FORMIC ACID BY SUPPORTED PHOSPHOTUNGSTIC ACID CATALYST

MALAYSIAN JOURNAL OF ANALYTICAL SCIENCES

2022 JOURNAL SCOPUS CO-AUTHOR

9. INFLUENCE OF NECK SLAUGHTERING IN BROILER CHICKEN MEAT ON PHYSICOCHEMICAL ANALYSIS AND METABOLITES ?FINGERPRINTING? TO ENHANCE MEAT QUALITY

ARABIAN JOURNAL OF CHEMISTRY

2021 JOURNAL ISI CO-AUTHOR

10. IDENTIFICATION OF METABOLITE PROFILE IN HALAL AND NON-HALAL BROILER CHICKENS USING FOURIER-TRANSFORM INFRARED SPECTROSCOPY (FTIR) AND ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY-TIME OF FLIGHT- MASS SPECTROMETRY (UHPLC-TOF-MS)

JOURNAL OF THE MALAYSIAN SOCIETY OF APPLIED BIOLOGY

2020 JOURNAL SCOPUS CO-AUTHOR

11. INTEGRATED GREEN MEMBRANE DISTILLATION-MICROALGAE BIOREMEDIATION FOR ARSENIC REMOVAL FROM PENGORAK RIVER KUANTAN, MALAYSIA

CHEMICAL ENGINEERING AND PROCESSING: PROCESS INTENSIFICATION

2020 JOURNAL ERA CO-AUTHOR

12. A PRELIMINARY STUDY OF CATALYTIC HYDROTHERMAL CONVERSION OF CELLULOSE TO LACTIC ACID: EFFECTS OF REACTION TEMPERATURE AND METAL ION CATALYST

JOURNAL OF PHYSICS: CONFERENCE SERIES

2020 JOURNAL SCOPUS MAIN AUTHOR

13. EFFECT OF DIFFERENT SLAUGHTERING METHODS ON METABOLITES OF BROILER CHICKENS USING ULTRA HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY-TIME OF FLIGHT-MASS SPECTROMETRY (UHPLC-TOF-MS)

FOOD RESEARCH

2020 JOURNAL SCOPUS CO-AUTHOR

## **PUBLICATION**

GREEN CHEMISTRY

2015 JOURNAL WOS CO-AUTHOR

14. UNCATALYSED POLYCONDENSATION OF LACTIC ACID TO POLYLACTIC ACID UNDER MICROWAVE IRRADIATION: EFFECT OF MICROWAVE POWER  JOURNAL OF PHYSICS.: CONFERENCE SERIES  2020 JOURNAL SCOPUS MAIN AUTHOR
15. TRIETHYLAMMONIUM HYDROGEN SULFATE IONIC LIQUID AS A LOW-COST SOLVENT: A SHORT REVIEW OF SYNTHESIS, ANALYSIS AND APPLICATIONS  MATEC WEB OF CONFERENCES  2019 JOURNAL PROQUEST MAIN AUTHOR
16. STABILITY OF CELLULASES IN IONIC LIQUIDS  MALAYSIAN JOURNAL OF FUNDAMENTAL AND APPLIED SCIENCES  2019 JOURNAL INDEXED BY WOS CO-AUTHOR
17. POLY(VINYLPYRROLIDINONE)-IRON MAGNETIC NANOCOMPOSITES AS SORBENTS FOR EFFECTIVE OIL REMOVALE FROM WATER  AIP CONFERENCE PROCEEDINGS  2018 JOURNAL SCOPUS MAIN AUTHOR
18. APPLICATION OF NANOCATALYST IRON OXIDE (FE203) TO REDUCE EXHAUST EMISSIONS (CO AND HC) IOP CONFERENCE SERIES: MATERIALS SCIENCE AND ENGINEERING  2018 JOURNAL WOS CO-AUTHOR
19. DECONSTRUCTION OF MALAYSIAN AGRO-WASTES WITH INEXPENSIVE AND BIFUNCTIONAL TRIETHYLAMMONIUM HYDROGEN SULFATE IONIC LIQUID AIP CONFERENCE PROCEEDINGS  2018 JOURNAL SCOPUS MAIN AUTHOR
20. ANALYSIS OF HARDNESS, QUALITY AND FLUIDITY AL-SI CASTING RESULT BY USING CLAMSHELL (PLACUNA PLACENTA) AS THE MIXTURE OF SAND MOULDING  JOURNAL OF MECHANICAL ENGINEERING SCIENCE AND TECHNOLOGY  2018 JOURNAL WOS CO-AUTHOR
21. AN EASY AND RELIABLE METHOD FOR SYRINGYL: GUAIACYL RATIO MEASUREMENT TAPPI JOURNAL  2017 JOURNAL WOS CO-AUTHOR
22. KINETICS OF SURFACTIN PRODUCTION BY BACILLUS SUBTILIS IN A 5 L STIRRED-TANK BIOREACTOR SAINS MALAYSIANA  2017 JOURNAL WOS CO-AUTHOR

23. DESIGN OF LOW-COST IONIC LIQUIDS FOR LIGNOCELLULOSIC BIOMASS PRETREATMENT

## **CONSULTATION**

1. RESOURCE CIRCULARITY OF LITHIUM-ION BATTERIES WASTE

PETRONAS RESEARCH SDN BHD



2022 NATIONAL

#### AWARDS/RECOGNITION

#### 1. VISITING SCHOLAR

SHIBAURA INSTITUTE OF TECHNOLOGY

2024 INTERNATIONAL

## 2. CONVERSION OF WASTEPAPER TO GLUCOSE AS AN ALTERNATIVE TO INCINERATION: TECHNO-ECONOMIC ANALYSIS AND SAFETY ASSESSMENT

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITI SILVER

# 3. CONVERSION OF WASTEPAPER TO GLUCOSE AS AN ALTERNATIVE TO INCINERATION: TECHNO-ECONOMIC ANALYSIS AND SAFETY ASSESSMENT

SCIENCE AND TECHNOLOGY RESERACH EXPO (SCITEX@20TH FST)

2023 UNIVERSITI GOLD

4. VISITING SCHOLAR

ANKARA UNIVERSITY, TURKEY

2022 INTERNATIONAL

5. SCHOLARSHIP FOR POST-DOCTORAL STUDIES - IMPERIAL COLLEGE LONDON

2021 INTERNATIONAL

6. VISITING FELLOWSHIP

2020 INTERNATIONAL

7. VISITING SCHOLAR

IMPERIAL COLLEGE LONDON

2020 INTERNATIONAL

**8. FST RAISING STAR** 

2019 UNIVERSITY

9. VISITING SCHOLAR

FACULTY OF ENGINEERING, UNIVERSITAS NEGERI MALANG

2019 INTERNATIONAL

#### 10. CONVERSION OF GLUCOSE TO LACTIC ACID UNDER MICROWAVE TREATMENT

INTELLECTUAL RESEARCH & INNOVATION SHOWCASE (IRIS 2019)

2019 KEBANGSAAN SILVER

# 11. AN ECO-FRIENDLY AND FACILE METHOD FOR OIL-WATER SEPARATION USING PVP-FE MAGNETIC NANOCOMPOSITES

PERTANDINGAN FESTIVAL SAINS, TEKNOLOGI & INOVASI KEBANGSAAN III 2018

2018 KEBANGSAAN SILVER

12. SOCCER-CHEM

INTERNATIONAL RESEARCH INNOVATION, INVENTION & SOLUTION EXPOSITION (IRIISE)(IRIISE2018)

2018 ANTARABANGSA BRONZE

# 13. A GREEN METHOD FOR EXTRACTING HIGH-VALUE BIOPOLYMERS FROM MALAYSIAN AGRICULTURE WASTES USING A LOW-COST IONIC LIQUID

ISLAMIC INNOVATION STUDENT COMPETITION 2018 (IREKA'18)

2018 UNIVERSITI GOLD