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PENSYARAH UNIVERSITI DS13

CONTACT

Phone: 78745

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Faculty: Fakulti Sains
Dan Teknologi

SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 2,
Ongoing: 0

AREAS OF EXPERTISE

Chemistry Of Catalysis

Phytochemicals

ACADEMIC QUALIFICATION

PhD in Kimia (2017)

Master in Kimia (2013)

Bachelor in Kimia Petroleum (2005)

RESEARCH

**1. ELUCIDATING THE STRUCTURE?ACTIVITY RELATIONSHIP
OF IRON-IMPREGNATED COFFEE GROUND ASH IN
BIFUNCTIONAL CATALYSIS OF WASTE FRYING OIL**

2026 GERAN PENYELIDIKAN FUNDAMENTAL ON GOING CO-RESEARCHER

**2. SYNTHESIS OF CU EMBEDDED MAGNETIC HYDROCHAR
NANOCOMPOSITE DERIVED FROM COCONUT HUSK FOR
CATALYTIC DEGRADATION OF ORGANIC POLLUTANT**

2024 GERAN PENYELIDIKAN USIM ON GOING MAIN RESEARCHER

**3. MODIFIED WASTE CHICKEN BONES DERIVED BI-
FUNCTIONAL CATALYST FOR BIODIESEL PRODUCTION FROM
HIGH FREE FATTY ACIDS WASTE COOKING OIL**

2021 GERAN PENYELIDIKAN USIM ON GOING CO-RESEARCHER

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

2019 GERAN KPT COMPLETED MAIN RESEARCHER

5. ANTIMICROBIAL, ANTIFUNGAL, ANTIOXIDANT AND ANTICANCER OF BETA-GLUCAN FROM ?CENDAWAN BUSUT? (TERMITOMYCES SP.) LOCALLY ISOLATED IN NEGERI SEMBILAN: A QUAD FUNCTIONAL NATURAL BIOACTIVE COMPOUND.

2019

GERAN PENYELIDIKAN USIM

ON GOING

CO-RESEARCHER

RESEARCH

6. ADSORPTION MECHANISM AND ELECTRICAL PROPERTIES OF CARBON AEROGEL EXTRACTED FROM SELECTED AGRICULTURE WASTE'S COCKTAIL IN UNDERSTANDING ITS HYDROGEN STORAGE BEHAVIOURS

2019 GERAN KPT ON GOING CO-RESEARCHER

7. STRUCTURAL AND PHYSICOCHEMICAL STUDIES OF PALLADIUM(II) WITH TETRAAZA SALT LIGANDS BY NON-TEMPLATING SYNTHETIC PATHWAY

2019 GERAN KPT COMPLETED CO-RESEARCHER

8. ENCAPSULATION OF KAFFIR LIME LEAVES ESSENTIAL OIL IN CHITOSAN AND ITS ANTIMICROBIAL ACTIVITY

2018 GERAN PENYELIDIKAN HEADSTART PROGRAM COMPLETED MAIN RESEARCHER

9. SYNTHESIS AND ANTICANCER STUDIES OF COUMARIN DERIVATIVES AND THEIR COMPLEXES

2018 GERAN PENYELIDIKAN USIM COMPLETED CO-RESEARCHER

PUBLICATION

1. INTERLAYER EXPANSION AND MORPHOLOGICAL TRANSFORMATION OF ZINC-ALUMINIUM ANIONIC CLAY THROUGH METHYL ORANGE INTERCALATION

MALAYSIAN JOURNAL OF CHEMISTRY

2025 JOURNAL OTHER DATABASE CO-AUTHOR

2. INTERCALATION OF RHODAMINE B DYE INTO ZINC-ALUMINUM LAYERED DOUBLE HYDROXIDES: STRUCTURAL, TEXTURAL, AND MORPHOLOGICAL INSIGHTS

TRENDS IN SCIENCES

2025 JOURNAL OTHER DATABASE CO-AUTHOR

3. CATALYTIC TRANSESTERIFICATION OF WASTE COOKING OIL USING FE-MODIFIED CHICKEN BONE CATALYST: CHARACTERIZATION AND OPTIMIZATION

SAINS MALAYSIANA

2025 JOURNAL INDEXED BY ISI AND SCOPUS CORRESPONDING AUTHOR

4. UNLOCKING THE POTENTIAL OF PT-BASED AND METAL OXIDES CATALYSTS IN LIQUID FUEL CELLS TECHNOLOGIES: PERFORMANCE AND CHALLENGES

AIN SHAMS ENGINEERING JOURNAL

2024 JOURNAL SCOPUS CORRESPONDING AUTHOR

5. EVALUATING ELECTROCATALYTIC ACTIVITIES OF PT, PD, AU AND AG-BASED CATALYST ON PEMFC PERFORMANCE: A REVIEW

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

2024 JOURNAL ISI, SCOPUS AND ERA CO-AUTHOR

6. EFFECT OF NIO SUPPORTED SIO2 IN HIGH CONCENTRATION OF CO

AIP CONFERENCE PROCEEDINGS

2024 JOURNAL SCOPUS CO-AUTHOR

7. FUNDAMENTAL CHEMISTRY FOR STEM C STUDENT

2024 BOOK CO-AUTHOR

8. EFFECT OF TRANSITION METALS ADDITION ON THE NICKEL OXIDE CATALYST TOWARD REDUCTION BEHAVIOUR IN CARBON MONOXIDE ATMOSPHERE

PERTANIKA JOURNAL OF SCIENCE AND TECHNOLOGY

2023 JOURNAL ISI, SCOPUS AND ERA CO-AUTHOR

9. ELECTROCATALYTIC ACTIVITIES OF PLATINUM AND PALLADIUM CATALYSTS FOR ENHANCEMENT OF DIRECT FORMIC ACID FUEL CELLS: AN UPDATED PROGRESS

AEJ - ALEXANDRIA ENGINEERING JOURNAL

2023 JOURNAL SCOPUS CO-AUTHOR

10. PHYSICAL AND CHEMICAL PROPERTIES ON REDUCTION BEHAVIOUR OF CHROMIUM DOPED TO MOLYBDENUM OXIDE IN CARBON MONOXIDE ENVIRONMENT

MALAYSIAN JOURNAL OF ANALYTICAL SCIENCES

2023 JOURNAL SCOPUS CO-AUTHOR

11. WORKBOOK BASIC CHEMISTRY FOR STEM C

2023 BOOK CO-AUTHOR

12. PROGRESS AND MAJOR BARRIERS OF NANOCATALYST DEVELOPMENT IN DIRECT METHANOL FUEL CELL: A REVIEW

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

2022 JOURNAL ISI, SCOPUS AND ERA MAIN AUTHOR / CONTACT PERSON IN USIM

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

MALAYSIAN JOURNAL OF ANALYTICAL SCIENCES

2022 JOURNAL SCOPUS CORRESPONDING AUTHOR

PUBLICATION

14. EFFECT OF DIFFERENT SUPPORTED HETEROPOLY ACID ON THE CATALYTIC HYDROTHERMAL CONVERSION OF CELLULOSE INTO FORMIC ACID

MATERIALS SCIENCE FORUM

2022 JOURNAL ERA CORRESPONDING AUTHOR

15. STUDIES ON INFLUENCE OF HYDROGEN AND CARBON MONOXIDE CONCENTRATION ON REDUCTION PROGRESSION BEHAVIOR OF MOLYBDENUM OXIDE CATALYST

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

2021 JOURNAL ISI, SCOPUS AND ERA MAIN AUTHOR / CONTACT PERSON IN USIM

16. ISOLATION, IDENTIFICATION, CULTIVATION AND DETERMINATION OF ANTIMICROBIAL β -GLUCAN FROM A WILD-TERMITE MUSHROOM TERMITOMYCES HEIMI RFES 230662

BIOCATALYSIS AND AGRICULTURE BIOTECHNOLOGY

2021 JOURNAL WOS CO-AUTHOR

17. PREPARATION OF CERIUM DOPED NICKEL OXIDE FOR LOWER REDUCTION TEMPERATURE IN CARBON MONOXIDE ATMOSPHERE

MALAYSIAN JOURNAL OF ANALYTICAL SCIENCES

2021 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

18. INFLUENCE OF HYDROGEN AND CARBON MONOXIDE ON REDUCTION BEHAVIOR OF IRON OXIDE AT HIGH TEMPERATURE: EFFECT ON REDUCTION GAS CONCENTRATIONS

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

2020 JOURNAL ISI, SCOPUS AND ERA MAIN AUTHOR / CONTACT PERSON IN USIM

19. PHYSICAL AND CHEMICAL BEHAVIOUR OF TUNGSTEN OXIDE IN THE PRESENCE OF NICKEL ADDITIVE UNDER HYDROGEN AND CARBON MONOXIDE ATMOSPHERES

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

2020 JOURNAL ISI, SCOPUS AND ERA MAIN AUTHOR / CONTACT PERSON IN USIM

20. COMPARATIVE ADSORPTION ISOTHERM FOR BERYLLIUM OXIDE/IRON (III) OXIDE TOWARD CO₂ ADSORPTION AND DESORPTION STUDIES

MATERIALS SCIENCE FORUM

2020 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

21. CHEMICAL REDUCTION BEHAVIOR OF ZIRCONIA DOPED TO NICKEL AT DIFFERENT TEMPERATURE IN CARBON MONOXIDE ATMOSPHERE

INDONESIAN JOURNAL OF CHEMISTRY

2020 JOURNAL SCOPUS CO-AUTHOR

22. CHARACTERIZATION OF ENCAPSULATED GINGER ESSENTIAL OILS AND ITS ANTIMICROBIAL PROPERTIES

JOURNAL OF ACADEMIA

2020 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

23. INFLUENCE OF CERIUM ON THE REDUCTION BEHAVIOUR OF IRON OXIDE BY USING CARBON MONOXIDE: TPR AND KINETIC STUDIES

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2019 JOURNAL OTHERS DATABASE MAIN AUTHOR

24. CHARACTERIZATION OF ENCAPSULATED GINGER ESSENTIAL OILS AND ITS ANTIMICROBIAL PROPERTIES

MELAKA INTERNATIONAL CONFERENCE ON SOCIAL SCIENCES, SCIENCE AND TECHNOLOGY (MIC3ST) 2019.

2019 PROCEEDING NON-INDEX MAIN AUTHOR

25. INFLUENCE OF HYDROGEN AND VARIOUS CARBON MONOXIDE CONCENTRATIONS ON REDUCTION BEHAVIOR OF IRON OXIDE AT LOW TEMPERATURE.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

2018 JOURNAL SCOPUS CO-AUTHOR

26. EFFECT OF RHODIUM ADDITIVE ON THE REDUCTION BEHAVIOUR OF IRON OXIDE IN CARBON MONOXIDE ATMOSPHERE

MALAYSIAN JOURNAL OF ANALYTICAL SCIENCES

2017 JOURNAL SCOPUS MAIN AUTHOR

PUBLICATION

27. STUDIES ON REDUCTION OF CHROMIUM DOPED IRON OXIDE CATALYST USING HYDROGEN AND VARIOUS CONCENTRATION OF CARBON MONOXIDE

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

2017

JOURNAL

SCOPUS

MAIN AUTHOR

AWARDS/RECOGNITION

1. ANUGERAH REKABENTUK INOVASI PENGAJARAN DAN PEMBELAJARAN UNIVERSITI SAINS ISLAM MALAYSIA TAHUN 2025

2025

UNIVERSITY

2. FROM HUSK TO HOPE ?COCONUT HUSK-BASED MAGNETIC CATALYST FOR SUSTAINABLE TEXTILE WASTEWATER TREATMENT

INNOVATION BANK CHALLENGE 2025

2025

ANTARABANGSA

SILVER

3. FROM AGRO-WASTE TO BIOETHANOL: GREEN TECHNOLOGY FOR TAYYIB SUSTAINABILITY

INNOVATION BANK CHALLENGE 2025

2025

ANTARABANGSA

BRONZE

4. CA2+ AND FE3+ IMPREGNATED CHICKEN BONE AS HETEROGENEOUS CATALYSIS FOR BIODIESEL PRODUCTION FROM WASTE COOKING OIL

VIRTUAL INNOVATION COMPETITION 2024

2024

ANTARABANGSA

BRONZE

5. FUN INTERACTIVE LEARNING GAMES FOR HIGH SCHOOL AND UNIVERSITY STUDENTS OF CHEMISTRY: BOARD OF CHEMICAL REACTION WITH A CHEM CARDS AND CHEM FACT CARDS.

INNOVATION BANK CHALLENGE 2023 (IBC2023)

2023

UNIVERSITI

GOLD

6. FUN INTERACTIVE LEARNING GAMES FOR HIGH SCHOOL AND UNIVERSITY STUDENTS OF CHEMISTRY: CHEM TIC TAC BOARD GAME

INNOVATION BANK CHALLENGE 2023 (IBC2023)

2023

UNIVERSITI

SILVER

7. CHEMISTRY MASTER

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

2023

UNIVERSITI

GOLD