

**RIEKE APRILIA WARDHANI**

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A Bachelor of Chemistry from Institut Teknologi Sepuluh Nopember (ITS) with a deep understanding of materials chemistry, instrumental analysis, and laboratory research. Experienced in research, scientific data processing, and report writing. Skilled in using analytical instruments and supporting software. Possesses precision, analytical skills, the ability to work independently and in teams, and a strong commitment to career development in industry and various professional fields, supported by rapid adaptability and a strong enthusiasm for learning.

EDUCATION

- Institut Teknologi Sepuluh Nopember (ITS) — Surabaya, Indonesia** **2021 – 2025**
Bachelor of Science in Chemistry
GPA: 3.49 / 4.00 (Very Satisfactory)
Final Thesis Title : “Effect of Hydrothermal Time and Temperature and Organic Template Concentration on the Synthesis of Silicalite-1 from Geothermal Sludge”
 - Developed MFI-type zeolite materials from environmentally friendly and cost-effective natural resources, utilizing geothermal sludge as an alternative to commercial materials.
 - Designed and optimized material purification processes to reduce impurities and obtain high-purity silica sources.
 - Successfully synthesized silicalite-1 materials from geothermal sludge under optimal synthesis conditions.
 - Interpreted material characterization data using advanced analytical techniques, including XRD, FTIR, and FESEM-EDX.
 - Prepared detailed laboratory logbooks, progress reports, and the final undergraduate thesis documentation.

WORK EXPERIENCE

- Project Lecturer with PT Pertamina Geothermal Energy – Laboratory Research Assistant** **2023**
 - Developed high-quality porous nanosilica from geothermal sludge using technical-grade chemicals through an innovative prototyping approach.
 - Designed a 100-liter reactor prototype and successfully produced 1 kg of nanosilica with particle sizes < 100 nm, supporting large-scale nanomaterial production.
 - Interpreted material characterization data using advanced analytical techniques, including XRF, XRD, FTIR, and FESEM-EDX.
 - Prepared detailed laboratory logbooks, progress reports, and final reports, ensuring comprehensive research documentation.
- Technical Implementation Unit for Occupational Safety, Department of Manpower and Transmigration of East Java Province – Laboratory Analyst Intern** **2024**
 - Analyzed emission air and ambient/workplace air testing samples from companies in accordance with standard procedures.
 - Processed and interpreted test result data to ensure accuracy and consistency.
 - Prepared testing reports in compliance with laboratory standards and safety procedures.

AWARDS & ACHIEVEMENT

- Student Creativity Program League** **2024**
Research Funding by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia
Research Title : “Fabrication of CaO/ZIF-8 Catalyst from Chicken Eggshell Waste for Biodiesel Production from Used Cooking Oil”
 - Developed CaO catalysts from chicken eggshell waste supported with ZIF-8 as high-performance catalysts for biodiesel production from used cooking oil.

- Designed the research workflow and successfully produced effective catalysts for biodiesel conversion.
- Interpreted material characterization data using advanced analytical techniques, including FTIR, XRD, SEM-EDX, Acid Value Test, and GC-MS.
- Prepared detailed laboratory logbooks, progress reports, and final reports, ensuring comprehensive research documentation.
- **Student Creativity Program League** **2024**
Gold-Equivalent Award, PKM-RE Team Category
Research Title : "Fabrication of CaO/ZIF-8 Catalyst from Chicken Eggshell Waste for Biodiesel Production from Used Cooking Oil"
 - Developed CaO catalysts from chicken eggshell waste supported with ZIF-8 as high-performance catalysts for biodiesel production from used cooking oil.
 - Designed the research workflow and successfully produced effective catalysts for biodiesel conversion.
 - Interpreted material characterization data using advanced analytical techniques, including FTIR, XRD, SEM-EDX, Acid Value Test, and GC-MS.
 - Prepared detailed laboratory logbooks, progress reports, and final reports, ensuring comprehensive research documentation.
- **Independent Community Service Program** **2023**
Aquaculture Waste Management in Pacitan, East Java
 - Designed chitosan-based edible coatings from shrimp shell waste as biodegradable polymers to extend fruit shelf life through polymer-based material research.
 - Served as Production Person-in-Charge (PIC) for research activities conducted in both laboratory and field settings.
 - Provided training and guidance to local communities on converting abundant shrimp shell waste into chitosan, contributing to improved household income.

SKILLS

- **LANGUAGES:** Indonesian (Native), English (Proficient – TEFL Score: 523), Japanese (Beginner)
- **SOFTWARE:** Microsoft Office (Word, Excel, Power Point), Origin, ImageJ, ChemDraw, Matlab, PyMOL
- **SPECIALIZED SKILLS:** Quality Control, Research and Development (RnD), Quality Assurance, Laboratory Skills, Scientific Analysis, Research Skills

ORGANIZATIONAL EXPERIENCE

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| ITS Chemistry Student Association | 2024-2025 |
| Head of Advance Program, Human Resource Development Department | |
| ITS Gresik Student Association | 2023-2024 |
| Head of Entrepreneurship Department | |
| ITS Bridge Student Activity Unit | 2023-2024 |
| Vice Head of External Affairs Department | |

TRAINING

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| ● ISO/IEC 17025:2017 Laboratory Management System | 2026 |
| ● Good Manufacturing Practices (GMP) | 2026 |
| ● Hazard Analysis and Critical Control Point (HACCP) | 2026 |
| ● ISO 22000:2018 Food Safety Management System | 2026 |
| ● Food Safety System Certification (FSSC) 22000 Version 7.0 | 2026 |
| ● Quality Assurance (QA) in Food Industry | 2026 |
| ● Quality Control (QC) in Food Industry | 2026 |
| ● Hazard Analysis and Critical Control Point (HACCP) Plan Development | 2026 |