



# AYU FORTUNE LISA HUTABARAT

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Medan, North Sumatra

Bachelor of Chemistry from Lampung University skilled in laboratory analysis. My practical experience was strengthened through an internship at UPST Bantargebang, where I was directly involved in analysis and testing to support the waste treatment process. I am highly motivated to continue learning, responsible, disciplined, and able to adapt quickly to a dynamic work environment.

## Work Experiences

### UPST Bantargebang - Bekasi, Indonesia

Aug 2023 - Dec 2023

#### analyst

This UPST serves as a final disposal site (TPA) for waste originating from the DKI Jakarta area. In this area, waste is not only landfilled but also processed through various methods such as sorting, recycling, composting, and utilizing methane gas for energy.

Additionally, the Bantargebang UPST has an environmental laboratory tasked with analyzing water, air, and soil quality around the processing area to ensure management activities comply with environmental standards. This facility plays a crucial role in supporting the government's efforts toward more sustainable and environmentally friendly waste management.

- Performing leachate quality analysis at IPAS 2, particularly testing the Chemical Oxygen Demand (COD) level using the titrimetric method (SNI 6989.73:2019).
- Responsible for testing other parameters such as pH, Cd and Hg levels, and Biochemical Oxygen Demand (BOD) to ensure water quality meets standards.
- Involved in testing at the Refuse-Derived Fuel (RDF) laboratory, including testing moisture and ash content to support the fuel production process.

### University of Lampung - Bandar Lampung, Lampung

Oct 2024 - Mar 2025

#### Research Assistant, Physical Chemistry

Conversion of Palm Oil into Nitrogen Compounds Using Zeolite-P as a Catalyst and Testing its Activity as a Corrosion Inhibitor

- Synthesizing Zeolite-P catalyst from rice husk silica and characterizing it using X-Ray Diffraction (XRD) and Scanning Electron Microscopy (SEM) instruments.
- Converting palm oil into methyl ester through transesterification reaction, using Zeolite-P catalyst. The product is characterized using Gas Chromatography-Mass Spectrometry (GC-MS).
- Synthesizing nitrogen compounds from methyl ester and diethanolamine through amidation reactions. The products were also characterized using GC-MS.
- Testing the activity of nitrogen compounds as inhibitors of mild steel corrosion in a CO<sub>2</sub>-gassed corrosive medium, using the wheeltest method.
- Analyzing the surface morphology of mild steel (with or without inhibitors) using SEM to evaluate the effectiveness of inhibitors.

## Education Level

### Universitas Lampung - Bandar Lampung, Indonesia

Aug 2021 - Aug 2025

#### Bachelor of Chemistry, 3.37/4.00

- Active member of the Chemistry Student Association (HIMAKI)
- Internship at UPST Bantargebang in the water laboratory and environmental analysis department
- Researcher writing a thesis on the conversion of palm oil into nitrogen compounds using zeolite-P catalysts
- Successfully completed research on the synthesis of zeolite-P from rice husk silica and tested its activity as a corrosion inhibitor for mild steel.

## Organisational Experience

### Himpunan Mahasiswa Kimia (HIMAKI) - Bandar Lampung, Indonesia

Feb 2022 - Dec 2022

#### Member of the Publishing Bureau

The HIMAKI Publishing Bureau is a division that plays a role in managing and developing information media and publications related to the activities of the Chemistry Student Association. This bureau is responsible for creating and disseminating educational, informative, and creative content in the form of newsletters, magazines, posters, and social media.

- Responsible for the content and design of association magazines/newsletters, from planning to publication.
- Managing the association's social media platform to disseminate information and document activities.
- Writing articles, news, and activity reports for internal publication.
- Designing visual promotional materials, such as posters and pamphlets.

## Skills, Achievements & Other Experience

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- **Hard Skills** (2025): Able to use Microsoft Office (Word, Excel, PowerPoint).
- **Soft Skills** (2025): Possesses a strong desire to learn and high initiative
- **Hard Skills** (2025): Content design and publishing (Canva, CapCut, Lightroom, PicsArt)
- **Soft Skills** (2025): Leadership and team coordination skills
- **Soft Skills** (2025): Easily adapts to new work environments
- **Soft Skills** (2025): Thorough, disciplined, and responsible in completing tasks