



ELISABETH CLAUDY RACHELLA PURBA

082364162755 | claudyelisabethh@gmail.com | <https://www.linkedin.com/in/elisabethclaudy>
Flora Aryana Karawaci E4-40, Kab. Tangerang, Banten

Chemistry graduate experience in analytical laboratory testing, sample preparation, solution preparation, and scientific data analysis. Experienced in physicochemical analysis of wastewater using SNI standard methods, as well as laboratory activities involving titration and colorimetric analysis. Proficient in UV-Vis spectroscopy, FTIR, volumetric titration, and scientific documentation, with a strong focus on accuracy, laboratory safety, and SOP compliance.

EDUCATION

Diponegoro University – Tembalang, Semarang

August 2022 – May 2026

Bachelor of Science (S. Si)

GPA: 3.71/4.00 (Relevant Coursework : Analytical Chemistry, Instrumental Analysis, Quantitative Analysis)

Thesis: Synthesis and Characterization of Citric Acid and CaCl_2 Crosslinked Cassava Peel Starch–Chitosan Bioplastics Using the Solution Casting Method

RESEARCH EXPERIENCE

Diponegoro University – Tembalang, Semarang

April 2025 – Maret 2026

Undergraduate Thesis – Cassava Peel Starch Chitosan Bioplastic

- Synthesized cassava peel starch–chitosan bioplastics using the solution casting method with citric acid and CaCl_2 crosslinking.
- Characterized the developed membranes using FTIR, tensile testing, optical microscopy, WVTR, swelling, water uptake, porosity, contact angle, and biodegradability tests.
- Analyzed experimental data to evaluate the effects of formulation and crosslinking on material properties.
- Evaluated the application of the developed bioplastic as packaging material through a tomato packaging study.

WORK EXPERIENCE

Diponegoro University – Tembalang, Semarang

August 2025 – December 2025

Laboratory Assistant - Analytical Chemistry Laboratory

- Facilitated analytical chemistry laboratory sessions for groups of up to 6 students, covering acid-base, redox, precipitation, and complexometric titrations.
- Prepared chemical and standard solutions, calibrated instruments, and ensured laboratory readiness in coordination with 2 instructors.
- Guided 45 students through experimental procedures, data interpretation, and laboratory safety.
- Assisted in evaluating experimental results and ensuring procedures were carried out according to laboratory guidelines.

Assistant - General Chemistry Laboratory

- Led laboratory sessions for 50 students, demonstrating basic laboratory techniques and colorimetric analysis.
- Prepared reagents, equipment, and chemical solutions while ensuring compliance with laboratory procedures and safety standards.

Balai Standardisasi dan Pelayanan Jasa Industri (BSPJI) Medan

January 2025 – February 2025

Laboratory Testing Intern

- Assisted physicochemical wastewater analysis for up to 25 samples per day, including BOD, COD, nitrate, fluoride, and chloride.
- Prepared and handled industrial wastewater samples and performed analyses using SNI standard methods.
- Recorded and verified test results and supported preparation of up to 7 test reports.

Diponegoro University – Tembalang, Semarang
Laboratory Assistant - General Chemistry Laboratory

August 2024 – December 2024

- Assisted laboratory sessions for 55 first-year students, including experiment preparation, demonstrations, and data interpretation.
- Prepared reagents and equipment for 3 laboratory sessions while ensuring compliance with SOPs and laboratory safety.

ORGANIZATION

LPM Polimer, Chemistry Student Association
Social Media Creator

June 2024 – August 2025

- Managed 15+ social media posts per month, increasing audience engagement by 70%.
- Produced visual content using Adobe Photoshop, Canva, and CapCut to enhance the organization's digital presence.

SKILLS

-
- **Hard Skills:** Sample Preparation, Solution Preparation, Physicochemical Testing, UV-Vis Spectroscopy, FTIR, Antibacterial Testing, Scientific Data Analysis, Acid-Base Titration, Redox Titration, Complexometric Titration, Precipitation Titration, Wastewater Analysis (BOD/COD), SOP & Occupational Safety and Health Compliance, Scientific Documentation
 - **Tools & Software:** Microsoft Excel, Origin Pro, ChemDraw, ImageJ, SPSS, Avogadro, Adobe Photoshop, Canva, CapCut
 - **Laboratory Instruments:** UV-Vis Spectrophotometer, Optical Microscope, Analytical Balance
 - **Languages:** Indonesian, English