



ADIESTY PUTRI HANDAYANI

Quality Control Analyst

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SUMMARY

A Bachelor of Chemistry graduate with **experience in quality control at BPOM and PDAM**, as well as **research on the synthesis of organic compounds** for perfume raw materials. **Experience in cosmetic samples, traditional medicines and health supplements (OTSK) sample preparation** for HPLC, AAS, and GC-MS analysis, as well as conducting **qualitative analysis of OTSK samples using Thin-Layer Chromatography (TLC)** in accordance with Farmakope testing guidelines and BPOM RI regulations. Experienced in **water quality monitoring** for clean water, drinking water, wastewater, and river water, **handling up to 20 samples per day**. **Conducted nitrite analysis using UV-Vis spectrophotometry** in accordance with SNI 06-6989.9-2004 and **prepared standard curves for nitrite and ammonia analysis** in accordance with SNI 06-6989.30-2005. **Successfully produced 8 batches of caryophyllene oxide** as a fragrance raw material and contributed directly to the development and optimization of a systematic method for synthesizing its derivatives. **Involved in compound characterization and structural confirmation** using **GC-FID, GC-MS, and FTIR**. Knowledgeable in the principles of **Good Laboratory Practice (GLP), Good Manufacturing Practice (GMP), and Hazard Analysis and Critical Control Points (HACCP)**. **Certified in Occupational Safety and Health (K3)** by BNSP, with the ability to consistently apply safety procedures when handling chemicals and laboratory equipment. **Interested in developing a career in Quality Control and Research & Development (R&D) within the food, pharmaceutical, cosmetic, fragrance, and environmental testing industries.**

EDUCATION

Bachelor of Chemistry - Indonesian University of Education

September 2022 – August 2026

GPA: 3,71 / 4,00

Final Project: Optimization of Reaction Conditions and Characterization of Caryophyllene Oxide Derivative Products Using Acids and Bases

Activities: Member of Kelompok Studi Ilmiah, Himpunan Mahasiswa Kimia (HMK)

EXPERIENCE

Research Assistant

September 2025 – August 2026

Universitas Pendidikan Indonesia

- **Synthesis of caryophyllene oxide** as a precursor for perfume raw materials, including production scale-up of 8 batches to a volume of 2.5 liters per batch and **coordinating raw material/reagent stock management with partial procurement**, in collaboration with the research supervisor, to meet raw material requirements for subsequent derivative synthesis while supporting the product's commercialization potential.
- **Identified and resolved reaction inefficiencies** by optimizing conditions for caryophyllene oxide derivative synthesis through reflux techniques, systematically testing 5 data points per variable (temperature, catalyst molar equivalent, solvent volume, and time) to obtain optimal reaction conditions.
- **Maintained detailed and accurate experimental records** (reaction parameters, yields, and characterization data) while refining compound separation and purification via liquid-liquid extraction, and **elucidating structure and composition using GC-FID, FTIR, and GC-MS to confirm target compound identity** and support traceability of synthesis results.

Biochemistry Lab Assistant

September 2025 – December 2025

Universitas Pendidikan Indonesia

- **Mentored up to 15 students** per biochemistry practicum per weekly biochemistry laboratory session (covering qualitative and quantitative analysis of carbohydrates, proteins, lipids, enzymes, and DNA), **resulting in more efficient lab sessions** with minimal procedural errors and accurate analytical data.
- **Prepared practicum solutions and reagents** in accordance with standard guidelines for organic chemistry and biochemistry laboratories **to support the accuracy of practicum results.**
- **Evaluated student practicum reports** and journals against the applicable assessment criteria.

Intern

June 2025 – July 2025

Perusahaan Daerah Air Minum (PDAM)

- **Managed the preparation and testing** of up to 20 water samples per day including clean water, drinking water, wastewater, and river water **to support the smooth running of daily water quality** testing at PDAM.
- **Analyzed nitrite levels and developed the nitrite standard curve** (SNI 06-6989.9-2004) using a UV-Vis spectrophotometer **to ensure accurate test results**.
- **Performed absorbance measurements and prepared ammonia calibration** curves using a UV-Vis spectrophotometer in accordance with SNI 06-6989.30-2005, **generating accurate and reliable water sample concentration** data for analytical decision-making.

Intern

February 2025 – June 2025

Balai Besar Pengujian Obat dan Makanan (BBPOM)

- **Prepared cosmetic and OTSK samples**, including weighing, dissolving via vortex or sonication, and wet digestion **to ensure samples were ready for analysis** according to procedure.
- **Conducted OTSK quality testing using Thin Layer Chromatography (TLC)**, one of BPOM's official testing stages **used to determine product compliance with quality standards** for further regulatory follow-up.
- **Prepared mobile phases for HPLC analysis** and studied the working principles and operation of AAS, GC-MS, and HPLC instruments **to strengthen understanding of instrumental analysis**.
- **Studied and applied BPOM regulations and guidelines** including Good Manufacturing Practices for Drugs (CPOB), Good Manufacturing Practices for Traditional Medicines (CPOTB), and Good Manufacturing Practices for Cosmetics (CPKB) as references for product quality control.

CERTIFICATION

- Occupational Safety and Health (K3) Officer Competency Certification - National Professional Certification Agency (BNSP)
- IC3 Digital Literacy Certification GS6 Level 1 - Certiport / American Council on Education (ACE);

TRAINING & COURSES

- Food Safety & Good Manufacturing Practices Training: Good Manufacturing Practice (GMP), HACCP, ISO 22000:2018, and FSSC 22000 Version 7.0 - Makin Ahli

SKILLS

Languages: Indonesian, English (PTESOL Score 503)

Technical:

- **Skilled in operating UV-Vis spectrophotometer** (including calibration standard curve development) and **performing OTSK sample testing via Thin Layer Chromatography (TLC)** - PDAM, BBPOM.
- **Experienced in sample preparation for OTSK, cosmetic, water, and organic compound** samples (weighing, dissolving, vortexing, sonication, dilution) - BBPOM, PDAM, and organic synthesis research.
- Capable of **elucidating organic compound structures** using GC-FID, GC-MS and FTIR and familiar with the working principles of HPLC, AAS, and UV-Vis spectrophotometer - Research Assistant, BBPOM, PDAM.
- **Experienced in maintaining detailed experimental documentation** (reaction parameters, yields, characterization data) and **coordinating raw material/reagent stock**, including partial procurement, to support uninterrupted synthesis production - Research Assistant.
- **Proficient in Microsoft Office** (Word, Excel, PowerPoint) for documentation and reporting of test results.

Personal:

- **Protocol adherence, attention to detail, and workplace adaptability** - consistently followed laboratory SOPs and safety protocols (K3) while adjusting to different work cultures across BBPOM, PDAM, research laboratory, and biochemistry practicum settings.
- **Leadership, teamwork, and communication** - mentored students during biochemistry practicum sessions, evaluated practicum reports against assessment criteria, and collaborated within a team as an HMK member, communicating results clearly to colleagues.
- **Time management and work resilience** - able to prioritize testing tasks amid fluctuating workloads, including periods of increased sample volume.