

Nurhalizah

Jl Baladewa Kiri, Jakarta Pusat, 10540 | +62-857-7161-6764
| nhalizah697@gmail.com | linkedin.com/in/Nurhalizah-86b97a241/

PROFILE

Chemistry graduate from Universitas Negeri Jakarta with hands-on experience in **natural compound isolation, formulation, product development, and chemical research**. Experienced in **developing hand soap formulations and product development** from cooking oil waste through the Integrated Community Service Program (KKN). Practical experience as a **Chemical Analyst** in the Toxicology Laboratory at Laboratorium Kesehatan Daerah Provinsi DKI Jakarta and **Successfully prepared 100–200 samples** per day with laboratory quality standards (SOP) compliance. Possesses strong in **analytical testing, laboratory analysis, data interpretation, problem solving, research, and attention to detail**. Passionate about pursuing a career in Research & Development (R&D), Product Development, Quality Control (QC), or Quality Assurance (QA). Familiar with GMP, GDP, GLP, CPOB, CPKB, CAPA, ISO 22716:2007, ISO 9001:2015, and ISO 17025:2017 through various training programs and webinars.

CAREER EXPERIENCE

Laboratory Assistant

March 2025 - Oct 2025

Laboratory Course in Instrumental and Separation Analytical Chemistry

- Successfully guided 36 sixth semester students in mastering laboratory procedures and the use of UV-Vis and FTIR instruments as part of the instrumental analytical chemistry laboratory course.
- Responsible for providing guidance on the proper use of chemicals and laboratory equipment in accordance with Good Laboratory Practice (GLP) and laboratory safety procedures throughout the practical sessions.
- Enhanced students knowledge and laboratory competencies by up to 50%, as measured through competency assessments conducted during laboratory practical sessions and written examinations.

Laboratorium Kesehatan Daerah Provinsi DKI Jakarta (LABKESDA)

Augst 2024 - Nov 2024

Research Intern – Toxicology Laboratory

- Successfully prepared 100-200 human biological specimens, including blood, urine, hair, and nail samples in accordance with Good Laboratory Practice (GLP) and Standard Operating Procedures (SOPs) for laboratory analysis.
- Performed specimen sample preparation using acid and hydrogen peroxide-assisted thermal digestion method.
- Analyzed and interpreted heavy metal concentrations in biological specimens using ICP-OES and ICP-MS instrumentation.
- Maintained accurate laboratory records and analytical documentation in accordance with established Good Laboratory Practice (GLP) principles and procedures.

Academic Assistant

Jan 2024 - June 2024

Fundamental Chemistry II

- Enhanced the understanding of 37 second semester students in General Chemistry II by up to 50% through the implementation of interactive learning methods and systematic problem solving approaches.
- Evaluated the academic understanding through group-based assessments and written examinations to measure their mastery of course material.

Community Service (Integrated KKN Program)

Jan 2024 - June 2024

Formulator of Hand Soap from Cooking Oil Waste

- Developed a liquid hand soap formulation from cooking oil waste, from active ingredient selection to finished product performance evaluation.
- Determined the optimal formulation composition based on raw material characteristics and the desired final product performance.
- Conducted product quality evaluations through organoleptic, pH, viscosity, foaming performance, microbiological, and stability tests to ensure product quality and performance.

- Collaborated with a team to design practical labeling and packaging for liquid hand soap products.
- Applied Good Laboratory Practice (GLP) throughout the formulation development and product evaluation processes.

ORGANIZATION

Badan Legislatif Mahasiswa Program Studi Kimia

Jan 2022 - March 2023

Human Resources Development (PSDM) Supervisory Staff

- *Project Management* : Monitored and evaluated the performance of the Student Executive Board (BEM) in executing organizational work programs to ensure operational effectiveness and the achievement of organizational objectives.
- *Collaboration and Teamwork* : Collaborated with other divisions to evaluate the performance of all executive board divisions and to design the annual programs of the legislative body.

Kelompok Peneliti Muda (KPM UNJ)

Dec 2021 - Nov 2023

Member of Researches Group

- *Committee Member* : Participated in the successful execution of KPM's annual event as a mentor for orientation groups of prospective new young researchers.
- *Collaboration and Teamwork* : Head of Sponsorship and Logistics and collaborating with all KPM UNJ divisions to successfully organize major annual events, including CASTLE (Conference on Social, Science, Technology, Language, and Education) and SKILL (Seminar on Scientific Research and Research Outcomes), as inter-university platforms for academic competition and research dissemination.

Head of Chemistry Study Program Cohort

Sept 2021 - Dec 2025

- *Collaboration and Teamwork* : Represented Chemistry students' aspirations and advocacy while supporting the chemistry study program administration in disseminating information to students.

COMMUNITY SERVICE & SUPPORTING EXPERIENCE

Olympiad Tutor (Middle to High School Level)

Oct 2024 – Present

Science, Chemistry, and Mathematics Olympiad

- Provided training by delivering materials and practice problems to students from several public schools.
- Evaluated students understanding and knowledge for the school-level National Science Olympiad selection.

Olympiad Tutor (Middle to High School Level)

March 2015 – Present

Science, Chemistry, and Mathematics

- Assisted students in understanding school subjects by providing clear and structured explanations.
- Delivered additional insights and materials to enhance students understanding of topics relevant to their school curriculum.
- Designed and assigned exercises or tasks to assess and further develop students comprehension and skills.

SKILL AND STRENGTHS

Practical Skills

- Formulation development & optimization
- Basic physicochemical testing (pH, viscosity, density)
- Raw material functional properties & compatibility
- Chemical analysis techniques
- Sample preparation & preservation
- Laboratory safety standards
- Analytical instrument operation
- Technical documentation & laboratory reporting

Instruments Skills

- UV-Vis Spectrophotometer
- Atomic Absorption Spectrophotometer (AAS)

- Fourier Transform Infrared Spectroscopy (FTIR)
- High Performance Liquid Chromatography (HPLC)
- Gas Chromatography–Mass Spectrometry (GC-MS)
- Liquid Chromatography–Mass Spectrometry (LC-MS)

EDUCATION

Universitas Negeri Jakarta

Aug 2021– Jan 2026

Bachelor of Chemistry, Faculty of Mathematics and Natural Sciences (GPA: 3.51/4.00)

Thesis Research:

“Isolation and Characterization of Secondary Metabolites from the n-Hexane Extract of Mangosteen (*Garcinia mangostana* L.) Peel, Antioxidant Bioactivity Assay and In Silico Study on PDGFR- α and VEGFR-2 Receptors”.

- Successfully isolated a pure xanthone-derived compound through a series of chromatographic separation techniques, including vacuum liquid chromatography (VLC), thin-layer chromatography (TLC), column chromatography, and radial chromatography.
- Identified compound classes through interpretation of 1D NMR (^1H -NMR and ^{13}C -NMR) and 2D NMR (HSQC and HMBC) spectral data using NMR spectroscopy.
- Reviewed more than 30 scientific articles on the antioxidant and anticancer activities of the isolated compounds to support research analysis and interpretation.

Relevant Courses: Organic Chemistry, Analytical Chemistry, Fundamental Chemistry, Anorganic Chemistry, Biochemistry, Determination of Compound Structure, and Chemistry of Natural Products.