

Nurhalizah

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ABOUT

Chemistry graduate from Universitas Negeri Jakarta with strong hands-on experience in **laboratory analysis, natural compound isolation, formulation, and chemical research**. Proficient in laboratory analysis, sample preparation, instrumental analysis, compound characterization, and data interpretation. Experienced in natural compound isolation through chromatographic techniques, supported by spectroscopic characterization and computational compound analysis using UV-Vis, FTIR, GC-MS, LC-MS, and NMR. Developed **hand soap formulations** from used cooking oil through the Integrated Community Service Program (KKN), including product evaluation through organoleptic, pH, viscosity, foam, and stability testing to ensure product quality and performance. Practical experience as a **Chemical Analyst** in the Toxicology Laboratory at Laboratorium Kesehatan Daerah Provinsi DKI Jakarta, involving the preparation of blood, urine, hair, and nail specimens and elemental analysis using ICP-OES and ICP-MS. **Successfully prepared 300–500 samples** per day while consistently adhering to Standard Operating Procedures (SOPs) and laboratory quality standards. Possesses strong analytical thinking, attention to detail, problem-solving, laboratory operations, and teamwork skills. Passionate about pursuing a career in Research & Development (R&D), Product Development, Quality Control (QC), or Quality Assurance (QA), with a strong commitment to supporting innovation in industries. Familiar with GMP, GDP, GLP, CPOB, CPKB, CAPA, 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

- Guided sixth-semester active students in the Instrumental and Separation Analytical Chemistry laboratory course, assisting them in analyzing and understanding experimental procedures throughout the practicum.
- Prepared laboratory equipment and materials in accordance with safety standards and ensured compliance with safety protocols during all practicum sessions.
- Evaluated students based on their laboratory competencies and conceptual understanding during practical sessions and written examinations.

Laboratorium Kesehatan Daerah Provinsi DKI Jakarta (LABKESDA)

Augst 2024 - Nov 2024

Research Intern – Toxicology Laboratory

- Performed the preparation of 300–500 human biological specimens, including blood, urine, hair, and nail samples, in accordance with standard operating procedures (SOPs) for laboratory analysis.
- Performed specimens testing through multiple preparation stages, including wet acid digestion using concentrated nitric acid and heating with hydrogen peroxide prior to instrumental analysis.

- Analyzed and interpreted analytical data generated by ICP-OES and ICP-MS to determine heavy metal concentrations in biological specimens.
- Maintained laboratory records and analytical documentation in accordance with GLP principles and established procedures.

Academic Assistant

Jan 2024 - June 2024

Fundamental Chemistry II

- Mentored second-semester undergraduate students in the General Chemistry II course, fostering their conceptual understanding and academic development.
- Evaluated the academic performance and conceptual understanding of 36 undergraduate students through continuous assessments and written examinations.

Community Service (Integrated KKN Program)

March 2023 - Oct 2023

Formulation of Hand Soap from Used Cooking Oil

- Developed a liquid hand soap formulation from used cooking oil, including the selection of active ingredients and evaluation of raw materials.
- 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, 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

Student Legislative Board of the Chemistry Study Program

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.

Young Researchers Group (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.

Private Tutor (Middle to High School Level)

March 2015 – Present

Science, Chemistry, and Mathematics Olympiad

- 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.

PUBLICATION

Scientific Article on Community Service

- Pemberdayaan Ekonomi Masyarakat Sawah Gede Kecamatan Cianjur Pasca Gempa Bumi Melalui Pemanfaatan Minyak Jelantah Sebagai Bahan Sabun Cair Cuci Tangan.

SKILLS AND STRENGTHS

Practical Skills

- Quantitative & qualitative chemical analysis
- Sample and reagent preparation
- Experimental data analysis
- Laboratory safety (K3), risk assessment, and compliance
- Technical documentation & report writing
- Literature review and benchmarking
- Data processing, validation, and visualization

Software Skills

- Microsoft Office (Word, Excel, Powerpoint)
- Canva
- AutoDock & BIOVIA Discovery

EDUCATION

STATE UNIVERSITY OF JAKARTA (GPA: 3.51)

Aug 2021 – Jan 2026

- Bachelor's Degree in Chemistry (S.Si)
- 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

SMAN 10 JAKARTA (GPA: 87.85)

July 2017 - May 2020

- Science Major at Senior High School