



Putri Khairunnisa Harahap

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Kalideres, West Jakarta, DKI Jakarta, Indonesia

Dedicated and detail-oriented Chemical Laboratory Analyst with comprehensive experience in testing physical and metal parameters using AAS (Flame & Graphite Furnace) and UV-Vis Spectrophotometry. Proficient in implementing ISO/IEC 17025 standards, method validation and verification, measurement uncertainty estimation, and laboratory quality control systems (Internal & External Quality Control). Proven track record in handling non-conformance investigations, quality documentation, and developing laboratory monitoring systems.

EDUCATION

POLITEKNIK AKA BOGOR - Bogor, Indonesia	Graduated : Sept 2024
<i>Diploma in Chemical Analysis</i>	
- Core Analytical Competencies: Comprehensive training in quantitative and qualitative analysis techniques including Titrimetry, Gravimetry, Proximate Analysis, Microbiology, Spectrophotometry, and Chromatography. - Advanced Instrumental & Pharmaceutical Analysis: Hands-on operation and interpretation for High-Performance Liquid Chromatography (HPLC) and UV-Vis Spectrophotometer. Acquired strong theoretical principles and conceptual understanding of Gas Chromatography (GC, GC-MS) and Inductively Coupled Plasma (ICP-MS, ICP-OES) operations during academic courses and laboratory practicals. Experienced with Dissolution and Hardness Testers. - Integrated Management Systems & Professional Training: Covered core industry principles through formal coursework including ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System), ISO 22000:2018 (Food Safety Management System), Laboratory Equipment Calibration, Method Validation & Verification, and Achievement Motivation Training (AMT).	

SKILLS & COMPETENCIES

Core Competencies	ISO/IEC 17025, Method Validation & Verification, Measurement Uncertainty Estimation, Laboratory Quality Control (PMI & PME), Corrective and Preventive Action (CAPA), Internal Calibration
Instrumentation	AAS Flame & Graphite Furnace (Advanced), UV-Vis Spectrophotometer (Advanced), HPLC (Intermediate), Karl Fischer Titrator (Basic), Data Color Spectrophotometer
Technical & Software	Gravimetric, Volumetric, Proximate & Microbiological Analysis, Chemical Handling, Laboratory Tool Calibration, Microsoft Office (Advanced Excel, Word, PowerPoint), AppSheet
Soft Skills	Cross-analyst coordination, non-conformance investigation, precise technical reporting, analytical thinking, disciplined, strong communication

PROFESSIONAL EXPERIENCE

UPTD LABKESDA Kabupaten Tangerang - Tangerang	Feb 2025 - Present
<i>Public Health Laboratory Analyst</i>	
- Conduct comprehensive testing and evaluation of water samples for physical, metal, and non-metal parameters utilizing AAS Flame, Graphite Furnace, and UV-Vis Spectrophotometer. - Execute method validation, verification, and measurement uncertainty estimation strictly adhering to ISO/IEC 17025 standards. - Manage Internal Quality Control (PMI) by systematically monitoring control charts for every analysis and conducting analyst proficiency/inter-comparison checks to guarantee process stability and precision. - Coordinate External Quality Control (PME) through inter-laboratory comparisons and proficiency testing to assure organizational competence and testing reliability. - Monitor and document overall laboratory environmental parameters (temperature and humidity) to secure ideal testing conditions and maintain analytical precision. - Ensure total compliance with the laboratory's documentation systems, quality standards, and compliance records.	

QC Raw Material & Packaging Staff

- Analyzed incoming raw materials including solvents, pigments, resins, extenders, and additives (color intensity, color matching, stability testing, acid/amine value determination, viscosity, density, pH, and water content via
- Karl Fischer Titrator) against standardized specifications.
- Inspected incoming packaging materials (cans, boxes, labels) covering dimensional measurements, layout designs, and leakage testing based on strict corporate quality standards.
- Validated testing methods for oil absorption parameters in extenders, organic, and inorganic pigments.
- Developed optimization methods evaluating the effects of glass bead weight and shaker duration on color intensity in organic and inorganic pigments.
- Measured color intensity of raw pigment materials utilizing Data Color Spectrophotometer and gloss meters.
- Archived and cataloged standard reference samples to maintain an accurate and up-to-date benchmark database.

KEY ACCOMPLISHMENTS

- Method Development: Successfully optimized and developed methods for measuring Cadmium (Cd) levels in water.
- Validation & Verification: Successfully executed analytical method validation and verification for metal and non-metal parameters using AAS (Flame & Graphite Furnace) and UV-Vis Spectrophotometer.
- Quality Control Contribution: Actively strengthened and streamlined laboratory internal and external quality control management systems.
- Digitalization Initiative: Pioneered the digital transformation of reagent stock tracking and laboratory climate monitoring systems using custom spreadsheet macros and AppSheet.
- Internal Calibration: Executed precise internal calibration procedures for critical laboratory instrumentation.

TRAININGS & CERTIFICATIONS

Jul 2024	Professional Competency Certification in Spectrophotometric Chemical Analysis – LSP Politeknik AKA Bogor
May 2026	High-Performance Liquid Chromatography (HPLC) Training – PT Ditek Jaya
May 2026	UV-Vis Spectrophotometer Application Training – PT Ditek Jaya
Jan 2026	Laboratory Health, Safety, and Environment (K3 Laboratorium) – Integrasi Institute
Sep 2025	AAS Basic Maintenance and Calibration Training (with Live Demo) – Integrasi Institute
May 2025	Refreshment & Implementation of SNI ISO/IEC 17025:2017 – Padmalab Global Indonesia
Mar 2025	Laboratory Quality Assurance (Jaminan Mutu Laboratorium) – Padmalab Global Indonesia
Feb 2025	Measurement Uncertainty Estimation (Estimasi Ketidakpastian Pengukuran) – Padmalab Global Indonesia