



NAYLA SHAFa SALSABILA

Laboratory Analyst | Chemical & Instrumental Analysis | Quality Control

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SUMMARY

Bachelor's degree graduate in Chemistry from IPB University with hands on experience in Laboratory analysis, Sample preparation, Instrumental analysis, and Analytical data processing. Experienced as a Chemical Analyst Intern at PT. SYSLAB, conducting heavy metal analysis (Cd, Cu, Ni, Pb, Zn) using ICP and AAS, including acid digestion, preparation of multi-element calibration standards, and analytical data validation in accordance with SNI 8910:2021 and K3 standards. Experienced in operating various laboratory instruments, including ICP-OES, ICP-MS, AAS, UV-Vis Spectrophotometer, and FTIR through professional and laboratory activities. Familiar with laboratory SOPs, K3, and ISO/IEC 17025:2017 requirements. Detail-oriented, disciplined, and committed to producing accurate and reliable analytical results.

EDUCATIONAL BACKGROUND

IPB UNIVERSITY

August 2022 – Juni 2026

S-1 Kimia (IPK: 3.30/4.00)

- **Software Skills:** Design-Expert, Origin-Lab, ImageJ, Microsoft Office (Excel, Word, Powerpoint), Google Workspace (Spreadsheets, Slide, Docs), and Canva.
- **Field of Study Interest:** Inorganic Chemistry.
- **Language:** Indonesian (Native), English (Intermediate).

CORE COMPETENCIES

- **Chemical & Instrumental Analysis:** Chemical analysis, quantitative analysis, sample preparation, and instrumental testing.
- **Heavy Metal Analysis:** Determination of Cd, Cu, Ni, Pb, and Zn in fly ash and bottom ash samples using ICP and AAS.
- **Analytical Instrumentation:** ICP-OES, ICP-MS, AAS, UV-Vis Spectrophotometer, FTIR, conductivity meter, pH meter, turbidimeter, and viscometers.
- **Calibration & Standard Preparation:** Preparation of multi-element standard solutions and calibration series for quantitative instrumental analysis.
- **Analytical Data Processing:** Data processing, data review, validation, and technical reporting using Microsoft Excel.
- **Laboratory Quality & Safety:** A Familiar with laboratory SOPs, SNI 8910:2021, K3, Laboratory Safety Procedures, and ISO/IEC 17025:2017.

WORK EXPERIENCES

Departement of Chemistry, IPB University - Bogor

August 2024 – June 2026

1. Laboratory Assistant of Inorganic Chemistry

January 2026 – June 2026

2. Laboratory Assistant of Physic Chemistry

January 2025 – June 2025

3. Laboratory Assistant of Science and Technology Courses

August 2024 – December 2024

- **Guided >100 students** in laboratory experiments and analytical procedures according to SOPs.
- Assisted practical activities involving **sample preparation, instrument operation, and analytical data evaluation.**
- Operated **UV-Vis, FTIR, pH meter, conductivity meter, turbidimeter, and viscometers** while applying laboratory K3 procedures.

Tools: UV-Vis Spectrophotometer, Fourier Transform Infrared Spectrophotometer (FTIR), Conductivity Meter, pH meter, Turbidimeter, Ostwald & Brookfield Viscometer, Spectronic 20D+, and UV Lamp Chamber.

Standards & Safety: SOP K3, Laboratory Safety Procedures.

PT. SYSLAB – Sentul City

September 2025 – November 2025

Chemical Analyst Intern

- Prepared fly ash and bottom ash samples from **3 companies** through **acid digestion** prior to instrumental analysis.
- Prepared **multi-element calibration standards** at **0.05, 0.10, 0.50, and 1.00 ppm** and conducted **heavy metal analysis of Cd, Cu, Ni, Pb, and Zn using ICP** in accordance with SNI 8910:2021.
- Operated **ICP-OES, ICP-MS, and AAS** and processed analytical data using Microsoft Excel for validation and technical reporting.
- **Applied laboratory SOPs, SNI 8910:2021, and K3 procedures** throughout analytical activities.

Tools: ICP-OES, ICP-MS, AAS, Hot Plate, Microsoft Excel, Microsoft Word, and Google Drive.

Standards & Safety: SNI 8910:2021, SOP K3, Laboratory Safety Procedures.

Key Achievement:

- **Successfully** prepared and analyzed **6 fly ash and bottom ash samples from 3 companies** for Cd, Cu, Ni, Pb, and Zn determination using ICP in accordance with SNI 8910:2021.
- Prepared a **4 point multi-element calibration series** to support instrument calibration and quantitative analysis.

ORGANIZATIONAL EXPERIENCE

Ikatan Mahasiswa Kimia (IMASIKA) - Bogor

January 2024 – December 2024

Staff of External Division

- Responsible for shaping Imasika IPB's public image, promoting the IPB Chemistry Department, and building relationships and partnerships with external stakeholders.
- Organized chemistry outreach and education programs for high school students.
- Engaged in community service by teaching at a Raudhatul Athfal (RA) school and supporting community health initiatives (Posyandu), including preparations for the district-level Posyandu competition.
- Recognized as Best Staff of the Month in September, achieving a performance score of 97.25/100.00.

Chemistry in Action - Bogor

February 2024 – September 2024

Head of Competition Division

- Determined the competition theme and topics, Established assessment criteria and scoring rubrics.
- Coordinated with judges throughout the competition process.
- Managed participant registration.
- Oversaw the competition process, including technical meetings, and submission stages.

Chemistry Goes to School (CGTS) - Bogor

March 2024 – May 2024

Chief Executive

- Led the planning and execution of "Chemistry Goes to School," a program introducing IPB Chemistry to high school students.
- Designed simple chemistry demonstration performances to engage students and spark interest in chemistry.
- Built and maintained communication with partner high schools regarding scheduling and logistics.
- Oversaw the overall program timeline, from planning to on-site implementation.

CERTIFICATION AND TRAINING

- **7 Habits of Highly Effective Collage Student** – 2022: **Modules:** Self-development training organized by FranklinCovey.
- **Awareness Training ISO/IEC 17025:2017** – 2026: **Modules:** Training on laboratory competence, quality management, and testing requirements.
- **Instrument HPLC (High-Performance Liquid Chromatography)** – 2026: **Modules:** HPLC Principles, Instrument Components, Separation Factors, Detectors, Sample Preparation, Qualitative & Quantitative Analysis, and Troubleshooting.