

WISNU BIMANTORO

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Chemistry graduate who thrives at the intersection of lab bench and data. Hands-on experience in surfactant formulation for Enhanced Oil Recovery (EOR) and mineral characterization, alongside computational modeling (molecular dynamics), backed by two national research grants. Skilled in experimental design, data analysis, and applying scientific problem-solving across oil & gas, mining, and academic research settings.

Education Level

IPB University	Aug 2022 - Aug 2026
<i>Bachelor of Science in Chemistry, 3.62/4.00</i>	
2 time PKM-PM Grant Recipient, funded by the Kemenristek RI (2023 & 2024). - Undergraduate research focusing on computational chemistry and pharmacological network analysis to identify natural biflavonoid compounds as multitarget anti-Alzheimer candidates.	

Work Experiences

PT Pertamina Research and Technology Innovation	Jun 2025 - Sep 2025
<i>Research and Development Intern</i>	
- Formulated a 3 surfactant blend targeting low Interfacial Tension (IFT) for EOR under high-salinity and heavy crude oil conditions. - Applied Response Surface Methodology (RSM) in DesignExpert to evaluate 20 surfactant formulations, 14 of which successfully achieved conditions favorable for Winsor III microemulsion formation. - Conducted daily iterative screening of 10+ surfactant formulations using phase behavior tests and salinity scans to optimize microemulsion formation, phase stability, and salinity conditions in 19.1 g/L salt. - Performed basic sediment and water analysis on crude oil samples to determine net oil content.	
General Competency Education, IPB University	Jan 2025 - Jun 2025
<i>Laboratory Assistant of Fundamental Chemistry</i>	
- Mentored first-year students across 12 weekly sessions, delivering fundamental chemistry concepts through applied and contextual learning approaches. - Supervised a cohort of 50+ students in basic laboratory techniques, strictly enforcing compliance with Good Laboratory Practice (GLP) and Job Safety Analysis (JSA) standards.	
Department of Chemistry, IPB University	Jan 2025 - Mar 2025
<i>Laboratory Assistant of Physical Chemistry</i>	
- Supervised 40 students in advanced physical chemistry experiments, demonstrating analytical techniques such as the Hittorf method and electrolysis to explain redox reactions and determine ion transport numbers. - Managed laboratory operations in accordance with GLP principles, ensuring 100% safety compliance through JSA-based risk assessment across all sessions.	
PT Aneka Tambang (ANTAM) Pongkor Gold Mine	Dec 2024 - Jan 2025
<i>Quality Control Intern</i>	
- Determined gold and silver concentrations for 20+ daily samples using fire assay and wet chemical dissolution techniques, followed by Atomic Absorption Spectrophotometry (AAS) analysis. - Analyzed cyanide levels across 15–20 process streams, mining waste, and environmental samples using UV-Visible (UV-Vis) Spectrophotometry to ensure process efficiency and environmental compliance. - Evaluated particle size distribution of activated carbon and gold-cyanide slurry samples, also measured the specific gravity of 25–50 rock specimens daily from mining operations. - Validated chemical reagent concentrations used in plant production to support Quality Control (QC) and maintain accurate warehouse inventory management.	

Organization and Social Project

Ikatan Mahasiswa Kimia (Imasika) IPB

Jan 2024 - Dec 2024

Staff of External Division

- Built strategic partnerships with external stakeholders to strengthen the visibility of the IPB Chemistry Department.
- Led a community development program serving 200+ participants across education, environmental sustainability, and public health initiatives.
- Coordinated a comparative study with Padjadjaran University and outreach programs at 2 high schools to promote the IPB Chemistry Department.

Chemconnect

Jun 2024 - Sep 2024

Head of Disciplinary

- Directed an 11-member disciplinary team overseeing 100+ students during department orientation, ensuring protocol, safety, and schedule compliance.
- Developed a comprehensive guidebook covering SOPs, codes of conduct, and disciplinary procedures for the student cadre formation program.
- Implemented a health data management system to monitor participant well-being, mitigate field risks, and coordinate communication across divisions.

Hyperchem

Mar 2024 - May 2024

Head of Public Relations

- Led a 6-member public relations team providing Liaison Officer (LO) services for participants and guests, coordinating communication, on-site problem-solving, and event schedules.
- Managed external communications and official correspondence, and coordinated cross-functional committee meetings across all divisions.

Dewan Eksekutif Asrama IPB

Aug 2022 - May 2023

Hallway Leader

- Coordinated community engagement initiatives for 18 residents, organizing academic study sessions, athletic activities, and personal development programs to strengthen participation and community cohesion.
- Spearheaded the Nusantara Festival, coordinating representatives from 10 residential corridors to organize cultural showcases celebrating regional diversity and promoting community inclusivity.

Certifications, Skills, and Others

- **Languages:** Indonesian (Native) and English (TOEFL Prediction 560; Intermediate).
- **ISO 9001:2015, 14001:2015, & 45001:2018 Training** (2025): Integrated management system training by SafeX Indonesia.
- **Halal Supervisor Training** (2025): Halal supervisor training based on SKKNI & SJPH implementation organized by the Indonesia Halal Training and Education Center (IHATEC).
- **7 Habits of Highly Effective College Student** (2022): Self-development training organized by FranklinCovey.
- **Technical Skills:** Microsoft Office, DesignExpert, SPSS, OriginLab, MGLTools, Orange Data Mining, Python, VS Code, Google Colab.