

SALSABILLA NUR ABTI

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Fresh graduate with a Bachelor's degree in Chemistry. I am eager to contribute to innovative developments in inorganic materials and catalysis, with a strong understanding of laboratory safety procedures and chemical risk management.

Work Experiences

Laboratorium Kimia Dasar Research Center ITS

Practicum Assistant of Basic Chemistry II

March – June 2025

- Supervised and coordinated laboratory activities for 168 students, offering guidance to ensure accurate comprehension and proper execution of the experiments.
- Guided students in the foam production experiment using detergent, sodium bicarbonate, and aluminum sulfate, based on colloid system principles.
- Assisted in experiment preparation, ensured safety compliance, prepared reagents and equipment, and supported data collection and analysis.
- Assessed students' academic performance of 168 students by reviewing pretest outcomes, grading assignments and reports, and evaluating final examinations.

Laboratorium Kimia Fundamental

Practicum Assistant of Inorganic Material Synthesis and Characterization

March – June 2025

- Led and supervised laboratory experiments for a total of 157 students, providing guidance and support throughout the practical sessions to ensure proper understanding and execution of the experiments.
- Guided students in synthesis of trans-potassium dioxalato diaquochromate(III) using redox reaction.
- Supervised the cis-trans test using ammonia to distinguish complex compound isomers.
- Evaluated and assessed the academic performance of 157 students, including reviewing pretest results, evaluating work scores, providing feedback on reports, and grading final exams.

Laboratorium Kimia Dasar Research Center ITS

Practicum Assistant of Basic Chemistry I

September – December 2024

- Oversaw and guided laboratory sessions for 120 students, ensuring correct understanding and precise execution of experiments.
- Supervised pH testing of oxides to identify acidic and basic materials.
- Ensured adherence to laboratory safety protocols and provided clarification on relevant theoretical concepts.
- Monitored students' performance by analyzing pretests, grading assignments/reports, and evaluating final examinations.

Balai Besar Pengawas Obat dan Makanan Yogyakarta

Pharmaceuticals and Cosmetics Laboratory Analyst Intern

July – August 2024

- Analyzed methanol, ethanol, and isopropanol in micellar water using GC.
- Measured vitamin D2/D3 in cosmetics and THP in tablets using HPLC.
- Tested hydrogen peroxide in hair dye via titration.
- Conducted mercury detection in cosmetics (Reinsch test).
- Applied TLC for hydroquinone, retinoic acid, and synthetic dye screening in cosmetics.

Research Projects

Laboratorium Kimia Material dan Energi

Member of laboratory

November 2024 – August 2025

- Conducted literature review on two materials capable of forming a composite with strong photocatalytic performance.

- Synthesized ZIF-8 using precipitation method and prepared activated carbon (AC) from sugarcane bagasse.
- Fabricated AC/ZIF-8 composites by incorporating varying AC masses during synthesis.
- Determined the appropriate adsorbent dosage and adsorbate volume for adsorption testing.
- Tested adsorption performance under different contact times and initial adsorbate concentrations.
- Evaluated photocatalytic efficiency under UV light irradiation.
- Interpreted adsorption, photocatalysis, and material characterization data from XRD, FTIR, SEM-EDX, and UV-Vis DRS.
- Operated UV-Vis spectrophotometer and transmission FTIR for material analysis.

PKM Riset Eksakta Pendanaan 2023

Third Member of Research Team

April – October 2023

- Contributed experimental work and creating social media content to communicate research progress and results @amox.mission on Instagram.
- Conducted a literature review on materials with potential to address amoxicillin pollution in water.
- Synthesized ZnCl₂-activated banana peel-derived activated carbon (AC) and fabricated UiO-66H/AC composites with varying AC mass (0, 10, 25, and 50%) via solvothermal method for amoxicillin degradation.
- Characterized materials using XRD, FTIR, SEM-EDX, and UV-Vis/DRS, and observed a band gap reduction.
- Led coordination with two members to manage and develop the team's Instagram content.

PKM Riset Eksakta Pendanaan 2023

Fifth Member of Research Team

April – October 2023

- Contributed experimental work and data analysis, involved in producing final deliverables such as reports and social media publications @solid_electrolyte on Instagram.
- Conducted research on cellulose extracted from water hyacinth, focusing on cellulose-I α , cellulose-I β , and cellulose-II.
- Presented the implementation during Penilaian Kemajuan Pelaksanaan PKM (PKP2).

Organization

BEM Fakultas Sains dan Analitika Data

Staff of External Relation Department

March 2023 – January 2024

- Executed 100% of external relation programs (Halo Komunitas Lingkungan, benchmarking, and podcast BISIKS).
- Awarded Best Staff of the Month (July 2023) for outstanding performance representing the External Relation Department.
- Coordinated as the PIC of 'Bincang Asik Scientics' (BISIKS) podcast as part of the External Relation Department of BEM FSAD ITS, overseeing planning, production, and performance achievement.
- Successfully produced and uploaded 4 episodes on Instagram (@bemfsad_its) and Spotify (BISIKS).
- Surpassed all performance targets: 28 average plays per episode on Spotify (target: 25); 5499 average plays per episode on Instagram (target: 1000); and an average score of 9/10 from the BEM FSAD members (target: 7).
- Produced 1 podcast episode focused on social issue, and overall performance achievement: 100%.

Education

Institut Teknologi Sepuluh Nopember, Bachelor Degree of Chemistry

2021 - 2025

- GPA: 3.57/4.00

Soft Skills & Hard Skills

- Proficient in Microsoft Office, Google Workspace, Origin for data analysis
- Instrumental and laboratory skill
- Analytical thinking
- Communication and cross-functional collaboration