

SYLVA RAISYA KHALYLA

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PROFESSIONAL SUMMARY

Chemical Engineering graduate with hands-on experience in production process monitoring, quality management, operational analysis, and continuous process improvement within the manufacturing industry. Skilled in analyzing operational data, identifying process deviations, supporting reliability improvement initiatives, and ensuring compliance with quality, safety, and operational standards. Detail-oriented, analytical, and collaborative with strong problem-solving skills.

EDUCATION

Bachelor of Chemical Engineering – Malikussaleh University

Sep 2021 – July 2025

GPA : 3.79/4.00

Final Thesis : “Design of Hydrogen Peroxide Plant from Hydrogen, Air, and Anthraquinone Using the Anthraquinone Auto-Oxidation Process with a Capacity of 100.000 Ton/Years (Special Task: Hydrogenation Reactor)”

Relevant Course : Process and Simulation Process, Quality Management System (QMS), GMP, HACCP, and Good Laboratory Practice, Mass & Energy Balance, Equipment Design, Health, Safety, and Environment Management, Utility, Economic Analysis, Process Optimization.

SKILLS, CERTIFICATION, AND ACHIEVEMENTS

- **Technical Skills:** Process Simulation & Design (ASPEN HYSYS), GMP Implementation, Data Analyst, Microsoft Office & excel, Quality Control & Assurance, Process Troubleshooting & Deviation Analysis, Mass & Energy Balance, Waste Treatment, Process and Production Optimization.
- **Languages** : Indonesia (Native), English (intermediate)
- **Training** : Upstream Oil & Gas Industri Exploration (Sharing Session by Mubadala Energy & Migas Center, 2025). | HSSE Management (PHE NSO - PHR Regional 1 & Migas Center, 2024). | Oil & Gas Production Process (Migas Center, SKKMIGAS, PHE NSO, Harbour Energy, 2024). | ASPEN HYSYS Proses Simulation Software (Chemical Engineering Training Center, 2023).
- **Achievement:** Chemical Operation System Laboratory Assistant at Malikussaleh University (2024-2025). | Development and production of Bioplastic from Starch and Cellulose by using RSM Method (2025).
- **Certificates** : K3 BNSP (2026), Chemical Operation System Laboratory Assistant, Chemical Engineering Department (2025). | ASPEN HYSYS Proses Simulation Software (2023)

EXPERIENCES

Process & Production Engineer Intern – Plant Operation 1

Nov 2025 – Mei 2026

PT Pupuk Iskandar Muda

- Monitored production process of ammonia parameters to ensure stable and efficient plant operations.
- Analyzed process deviations and operational constraints to support troubleshooting and maintain production continuity.
- Supported plant start-up activities to ensure safe and smooth commissioning.
- Coordinated with field operators and control room personnel to maintain operational reliability and safety compliance.

Chemical Operation System Laboratory Asisstant
Malikussaleh University

Aug 2024 – 2025

- Conducted laboratory supervision and guided over 100 students in process analysis and data interpretation.
- Performed sampling, laboratory testing, and reporting to support process evaluation and quality control.
- Skilled in process control, data trending, and Statistical Process Control (SPC) concepts.
- Able to conduct root cause and CAPA analysis when quality issues arise.

Process and Production Engineer – Internship
PT Pupuk Iskandar Muda

Aug 2024

- Monitored High Pressure Decomposer Equipment performance using DCS data to ensure safe operation and compliance with Safety standards in urea production.
- Evaluated equipment performance and ensured compliance with operational and safety standards.

Seismic Survey Staff (Blok WK-B)

Maret 2023

Pema Global Energy

- Conducted seismic survey to identify subsurface geological structures for exploration and development planning in Blok WK-B.
- Participated in seismic survey to evaluate subsurface potential for hydrocarbon exploration.

ORGANIZATION

Migas Center Community – Research and Technology Division
Malikussaleh University

2023-2025

- Participated in conducting oil and gas exploration and exploitation studies.
- Handled the development of oil and gas technology.
- Extended and collaborated with SKKMIGAS, Mubadala Energy, Harbour Energy, Pertamina Ep, PHE NSO to improved knowledge about oil & gas production.

Chemical Engineering Students Association

2024

Head of Academic and Profession Department

- Lead team in 10 academic and professional development programs.
- Collaborated with PT Solusi Bangun Andalas for field learning.
- Conducted professional training with Alumnus in industrial sector.

PROJECTS

Final Thesis : “Design of Hydrogen Peroxide Plant
from Hydrogen, Air, and Anthraquinone Using the Anthraquinone Auto-Oxidation Process with a
Capacity of 100.000 Ton/Years (Special Task: Hidrogenation Reactor)”

Mar- July 2025

- Developed AO Process for hydrogen peroxide production and optimization process flow diagram.
- Designed a hydrogen peroxide plant with including process simulation, mass & energy balance, and equipment sizing using Aspen HYSYS, while performing economic feasibility analysis.

Optimization Of Biodegradable Plastic Production

Jan 2025

Based On Colocasia Esculenta Tuber Starch With The Addition Of Zinc Oxide (Zno) As A Filler
Using The Response Surface Methodology (RSM)

- Produced bioplastics by doing characteristic tests to accepted Indonesian standart, developed environmentally friendly products and reducing waste
- Published findings in Chemical Engineering Journal Storage



Krueng Geukueh, 23 Mei 2026

Nomor : 01/DL.03.01/3110/V/2026
Lampiran : -
Hal : **Surat Rekomendasi**

Dengan hormat, saya yang bertanda tangan dibawah ini:

Nama : Samsul Gamal
Jabatan : VP Operasi Pabrik-1
Perusahaan : PT Pupuk Iskandar Muda

Dengan ini memberikan rekomendasi kepada:

Nama : Sylva Raisya Khalyla
Posisi : Staf Operasi Pabrik-1

Yang bersangkutan tercatat sebagai peserta magang dalam program pemagangan lulusan perguruan tinggi oleh Kementerian Ketenagakerjaan RI pada PT Pupuk Iskandar Muda bagian keuangan dan pajak selama periode 24 November 2025 sampai dengan 23 Mei 2026.

Selama masa magang, Saudari Sylva Raisya Khalyla menunjukkan kinerja yang baik, teliti, dan bertanggung jawab serta memiliki pemahaman yang baik di bidang Proses dan Produksi, khususnya dalam kegiatan Quality Control, termasuk pengolahan dan analisis data untuk mendukung pengendalian kualitas, pemantauan proses produksi, serta memastikan kesesuaian proses dengan standar operasional yang berlaku.

Selain itu, yang bersangkutan mampu bekerja baik secara individu maupun dalam tim, memiliki komunikasi yang efektif, serta mampu beradaptasi dengan lingkungan kerja secara profesional. Sikap dan etos kerja yang ditunjukkan dinilai sangat baik serta memberikan kontribusi positif bagi unit kerja.

Berdasarkan penilaian tersebut, kami merekomendasikan yang bersangkutan untuk dapat dipertimbangkan dalam posisi yang relevan.

Demikian surat referensi kerja ini dibuat untuk digunakan sebagaimana mestinya.

Hormat kami,
PT Pupuk Iskandar Muda

Samsul Gamal
Vice President Operasi Pabrik-1