

ALSHAIMA ALSHEHRI

Chemical Engineer & Battery Researcher

✉ Alshaima.Alshehri@gmail.com | 📞 0507316956 | 📍 Abha, Saudi Arabia

SUMMARY

Chemical Engineer and Master's researcher specializing in energy storage, advanced materials, and sustainable energy solutions. Focused on research in sodium-sulfur (Na-S) batteries, biopolymer self-healing cathodes, and green material synthesis. Experienced in scientific research methodologies, laboratory protocols, material characterization, and international conference presentations.

EDUCATION

Master of Science in Chemical Engineering

King Khalid University – Abha, Saudi Arabia

- **Research Focus:** Sustainable Cathode Materials for Sodium-Sulfur Batteries.

Bachelor of Science in Chemistry

University of Bisha – Bisha, Saudi Arabia

INTERNATIONAL & REGIONAL CONFERENCE PRESENTATIONS

250th Electrochemical Society (ECS) Meeting

Canada

Accepted – Oral Presentation

- Selected for oral presentation on biowaste-derived sustainable cathode materials for sodium-sulfur battery systems.

AIChE Annual Meeting (American Institute of Chemical Engineers)

USA

Accepted

- Research abstract accepted on biopolymer self-healing hydrogel binders for sustainable battery applications.

Sustainable Energy and Environmental Solutions Conference (SEESC 2025)

King Khalid University – Abha, Saudi Arabia

Dec 9–10, 2025

- Participated in technical tracks and specialized plenary sessions:
 - **Plenary Session 1 (Sustainable Energy):** Advanced competitive energy technologies and efficiency optimization.
 - **Plenary Session 3 (Recycling Track):** Waste-to-resource conversion strategies and sustainable materials recycling.
 - **Plenary Session 4 (Environmental Impact):** Environmental impact assessment tools for industrial processes.
 - **Plenary Session 5 (Circular Economy):** Implementation frameworks for circular economy models in academic & industrial sectors.
- Engaged in interactive panel discussions covering Net Zero Transition Strategies, The Future of Sustainable Energy Systems, and Reinventing Waste Management Solutions.

PROFESSIONAL DEVELOPMENT & WORKSHOPS

Optimal Innovation Selection Using INAS Methodology

Center for Entrepreneurship, King Khalid University – Al-Far'a

Apr 21, 2026

- Mastered systematic evaluation methodologies for screening, selecting, and commercializing innovative entrepreneurial concepts.

Teacher and Education in the Era of Artificial Intelligence Conference

3rd International Conference by Saudi Scientific Association for Teachers (JASM), King Khalid University

Apr 15–16, 2026

- Participated in discussions and sessions focused on AI integration in educational frameworks, advanced teaching methodologies, and modern pedagogical tools.

Institutional Excellence in Higher Education Forum

King Khalid University – Abha, Saudi Arabia

Oct 27–28, 2025

- Attended specialized sessions on institutional performance standards, educational quality frameworks, and strategic governance in higher education.

TECHNICAL & RESEARCH SKILLS

- **Material Synthesis & Chemistry:** Biopolymer modification, functional polymer crosslinking, porous carbon synthesis, and hydrogel binder formulation.
- **Characterization & Analytical Techniques:** Analytical data interpretation and electrochemical testing for material characterization.
- **Software & Data Analysis:** MATLAB, OriginLab, and Microsoft Office Suite.
- **Core Competencies:** Scientific research methodology, technical report writing, presentation design, and project management.

VOLUNTEER & EXTRA-CURRICULAR ACTIVITIES

Community & Academic Volunteer Leadership

2023 – 2026

Multiple Organizations & Institutional Initiatives

- Completed over 500 accredited volunteer hours participating in national, academic, and environmental development campaigns.
- Coordinated logistics, delegation reception, and event execution for academic conferences and university symposiums.
- Demonstrated effective team coordination, communication, adaptability, and problem-solving skills.