

# 2025

## 공정솔루션연구실

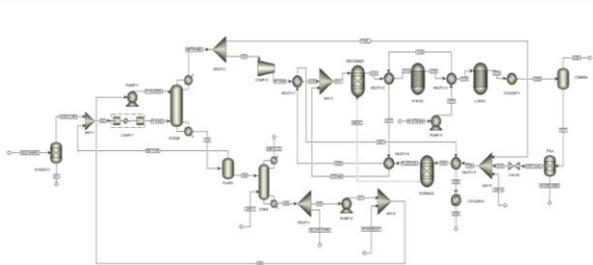
(송대성 교수님 연구실)

## 학부연구생 모집



### # 연구실 소개

- ✓ 폐배터리 내 금속 재활용 공정 모델링 및 최적화
- ✓ 유가금속 및 희토류 회수 공정 연구
- ✓ 탄소중립 고려한 지속 가능한 기술 연구 및 시뮬레이션 구현
- ✓ 포스코, 현대제철, SK 등 기업과제 다수



### # 지원 자격



- ✓ 학점 3.5 이상
- ✓ 4학년 대상
- ✓ 연구 분야에 관심 많으신 분
- ✓ 대학원 진학에 관심 있으신 분

### # 활동 내용

- ✓ 실험 및 시뮬레이션 보조
- ✓ 분석 장비 이용 및 데이터 분석

### # 지원 방법

- ✓ 이메일 지원 ([dssong@jnu.ac.kr](mailto:dssong@jnu.ac.kr))



기타 문의사항: [csb3014@naver.com](mailto:csb3014@naver.com)

### # 모집 기간

- ✓ ~ 12월 26일 (금)까지

# # 연구실 사진



# # 논문 리스트 (2025)

Waste Management 201 (2025) 114787



Contents lists available at ScienceDirect

Waste Management

journal homepage: [www.elsevier.com/locate/wasman](http://www.elsevier.com/locate/wasman)



Research Paper

Enhancing lithium recovery from spent lithium-ion batteries: Techno-economic analysis comparison with and without extractant recovery process

Seungu- Cho, Thang Toan Vu, Junghyeong- Seo, Jieun- Cha, Yeongeun- Choi, Daesung- Song

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Journal of Water Process Engineering 71 (2025) 107262



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Journal of Water Process Engineering

journal homepage: [www.elsevier.com/locate/jwpe](http://www.elsevier.com/locate/jwpe)



Economic and environmental implications of extractant loss in lithium recovery from waste battery effluent: A comparative study of  $\beta$ -diketone-based extractants, HDBM and HBTA

Jieun-Cha, Thang Toan Vu, Junhyung-Seo, Seungu-Cho, Yeongeun-Choi, Daesung-Song

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Contents lists available at ScienceDirect



International Journal of Hydrogen Energy

journal homepage: [www.elsevier.com/locate/ijhe](http://www.elsevier.com/locate/ijhe)



Techno-economic and environmental assessment of hydrogen production utilizing captured methane from hydropower reservoirs

Yeongeun Choi, Thang Toan Vu, Seungu Cho, Jieun Cha, Seohyeon Park, Seokbeom Choi, Hojung Kim, Daesung Song

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Journal of Energy Storage

journal homepage: [www.elsevier.com/locate/jest](http://www.elsevier.com/locate/jest)



Research papers

Techno-economic evaluation of Lithium hydroxide recovery from waste battery effluent: Process design and scalability assessment

Junhyeong- Seo<sup>1</sup>, Thang Toan Vu<sup>1</sup>, Seungu- Cho, Jieun- Cha, Yeongeun- Choi, Hojung- Kim, Daesung- Song

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