

Sooik Im

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Raleigh, NC 27606

Education

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| Ph.D., Chemical and Biomolecular Engineering | North Carolina State University | Expected May. 2023 |
| M.S., Chemical and Biological Engineering | Korea University, South Korea | Aug. 2016 |
| B.S., Chemical and Biological Engineering | Korea University, South Korea | Aug. 2014 |

Research Experience

The Nonwovens Institute / NC State University

Raleigh, NC

Research Assistant

Jan. 2019 – Present

- Understanding charge on nonwovens
- Characterize polymer- polymer interaction and correlate with fiber structure and property relationship.

Korea University

Seoul, South Korea

Researcher, Energy and Materials Processes Lab

Aug. 2014 – May. 2018

- Heavy metal adsorption using metal oxide-carbon composite
- Solvent recovery in solvent deasphalting (SDA) process
- Slurry hydrocracking catalyst recycling
- Methane production from synthesis gas (CO, H₂) using catalytic reaction

First-author Publications

- **Sooik Im**, Sangcheol Shin, Jun Woo Park, Hyung Jin Yoon, Kang Seok Go, Nam Sun Nho, Ki Bong Lee, "Selective separation of solvent from deasphalted oil using CO₂ for heavy oil upgrading process based on solvent deasphalting", Chem Eng J, 331, 389-394 (2018)
- **Sooik Im**, Ki Bong Lee, "Novel sorption-enhanced methanation with simultaneous CO₂ removal for the production of synthetic natural gas", Ind Eng Chem Res, 55(34), 9244-9255 (2016).

International Presentations

- **Sooik Im**, Ki Bong Lee, "Sorption-enhanced methanation with simultaneous CO₂ removal for the production of synthetic natural gas", UK-Korea Focal Point Programme – Clean Energy: Advancing a Futuristic H₂-Based Economy through a Creative Partnership between the UK and Korea, Oral session (2017).
- **Sooik Im**, Sangcheol Shin, Ki Bong Lee, "Novel solvent recovery method for solvent deasphalting process", 15 AIChE Annual Meeting, Poster session (2015).
- **Sooik Im**, Ki Bong Lee, "Novel sorption-enhanced methanation reaction for the production of synthetic natural gas from coal-derived syngas", International Conference on Coal Science & Technology, Poster session (2015).

Skills

Computer: AspenPlus, Hysys, Matlab, and Microsoft Office.

Technical: Material characterization (SEM, TEM, XRD, XPS, FT-IR, BET, and TGA), oil characterization (GC-MS and TLC)

Languages: English (proficient), Korean (native)

Scholarships & Honors

- Best Oral Presentation Award in Korean Institute of Chemical Engineers Spring, 2018
- Best Poster Award in Korean Institute of Chemical Engineers Fall, 2014
- National Scholarship for Science & Engineering, Korea Student Aid Foundation 2010-2012
- Best Honors Scholarships Fall, 2008