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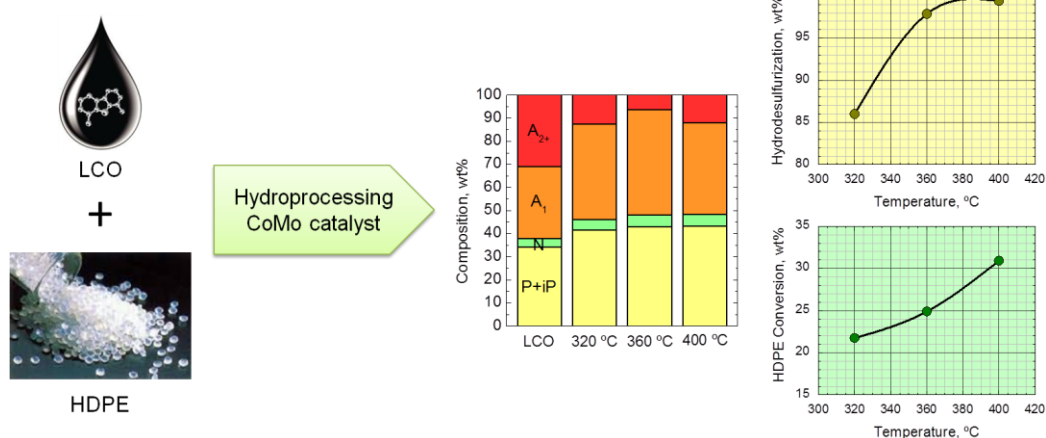
# Upgrading of High-Density Polyethylene and Light Cycle Oil Mixtures to Fuels via Hydroprocessing

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## Graphical abstract



## Highlights

- CoMo/Al catalyst is suitable for LCO hydrodesulfurization
- HDPE co-feeding improves the LCO hydrodesulfurization
- The hydrodesulfurization conversion of LCO/HDPE mixture is of 99.6 wt% at 400 °C.
- HDPE co-feeding has no significant impact on product distribution.

## ABSTRACT

The joint valorization of high-density polyethylene (HDPE) and light cycle oil (LCO) has been studied via hydroprocessing with the aim of valorizing the HDPE and reducing the sulfur and polyaromatic contents in the LCO. Experiments have been carried out in

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