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# Process systems engineering issues and applications towards reducing carbon dioxide emissions through conversion technologies: Review

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## Highlights

- Issues and applications in process systems engineering for carbon dioxide conversion are reviewed.
- Four different elements for the sustainable carbon dioxide process design are introduced and the relevant gaps and opportunities are highlighted.
- Integration of carbon dioxide conversion processes with other infrastructures is described along with the roles of PSE methods and tools.

## Abstract

This paper reviews issues and applications for design of sustainable carbon dioxide conversion processes, specifically through chemical conversion, and the integration of the conversion processes with other systems from a process systems engineering (PSE) viewpoint. Systematic and computer-aided methods and

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