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## ACCEPTED MANUSCRIPT

# Recovery of ethanol via vapor phase by polydimethylsiloxane membrane with excellent performance

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#### **Highlights**

- A little change is performed in the PV process for ethanol recovery.
- GSVP show superior separation performance of ethanol from model solution.
- Reduction of pervaporation performance in fermentation broth are avoided.
- GSVP is more energy-efficient than pervaporation and distillation.

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