

연속적인 CHA 유형 제올라이트 분리막 합성
(On the synthesis of continuous CHA type
zeolite membrane)

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Among 8-MR zeolites, all silica CHA (Si-CHA) zeolites are suitable for separating CO₂ from N₂ or CH₄ through their molecular sieving property. If these materials can be made as continuous membranes, they can separate CO₂ from N₂ or CH₄ via molecular sieving, even possibly in the presence of H₂O primarily due to the hydrophobicity. For membrane fabrication, the secondary growth method was adopted: a seed layer, comprised of zeolite particles or blocks, is first formed and its subsequent growth allows the formation of a continuous zeolite membrane. In this presentation, we will give the main idea of how to make Si-CHA membranes. In addition, their CO₂/N₂ separation performance will be discussed in detail.