

Carbon Capture: Growth and Development of Membranes in Gas Sequestration

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Abstract : Various technologies are emerging to capture or reduce carbon intensity from a gas stream, such as industrial effluent air and atmosphere. Of these technologies, filter membranes are emerging as a key player in carbon sequestering. The key advantages of these membranes are their high surface area and porosity. Fabricating a filter membrane that has high selectivity for carbon sequestration is challenging as material properties and processing parameters affect the membrane properties. In this study, the growth of the filter membranes and the critical material properties that impact carbon sequestration are presented.

Keywords : membranes, filtration, separations, polymers, carbon capture

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