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The nitrogen-doped porous carbons/PIM mixed-matrix membranes for CO₂ separation

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Abstract

Nitrogen-doped porous carbons (NDPC)/polymer of intrinsic microporosity (PIM) mixed-matrix membranes (MMMs) were fabricated via a thermal treatment of the ionic liquids (ILs)/PIM blending membranes, in which the nitrile-containing ILs reacted and formed the NDPC with three-dimensional-connected frame-works after the thermal post-treatment. The chemical characterization was performed by Fourier transform infrared spectroscopy. The thermal property was investigated by thermo-gravimetric analysis. The average inter-chain distance of the MMMs was

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