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# Blending of Compatible Polymer of Intrinsic Microporosity (PIM-1) with Tröger's Base Polymer for Gas Separation Membranes

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## ABSTRACT

The novel gas separation membranes have been prepared by blending highly gas permeable polymer of intrinsic microporosity (PIM-1) and with Tröger's Base polymer (TB). Interestingly, it was found firstly that the PIM-1 polymer was miscible with Tröger's Base polymer in any proportion. It was assumed that the excellent compatibility between two polymers could be attributed to the interaction between CN group in PIM-1 and N atoms in Tröger's Base moieties, as confirmed by ATR-IR results. Thus, flexible, tough and transparent blending membranes (PIM/TB) at different compositions between PIM-1 and TB were obtained by solution casting. The SEM results further

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