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Highlights

- Metal supported MOF membranes are efficiently fabricated using rapid thermal deposition.
- The membranes exhibit high gas permeation in the order of $\times 10^{-6} \text{ mol.m}^{-2}.\text{s}^{-1}.\text{Pa}^{-1}$.
- The high permeance is attributed to the high void volume across the macroporous metal supports.
- The membranes exhibit Knudsen selectivities for He/N₂, Ar/N₂ and CO₂/N₂.

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