

## **Supporting Information**

# **Template Removal from SBA-15 by Ionic Liquid for Amine Grafting: Applications to CO<sub>2</sub> Capture and Natural Gas Desulfurization**

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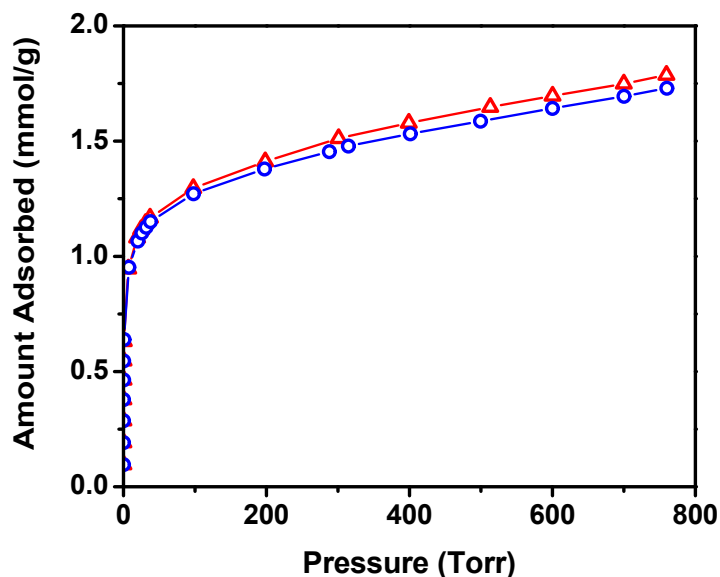
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### Effect of ionic liquid treatment temperature

When conducting the ionic liquid treatment at 90 °C, the organic template P123 can also be removed from as-synthesized SBA-15. The resulting amine grafted adsorbent showed a similar CO<sub>2</sub> adsorption capacity to the NH<sub>2</sub>-SBA-15-IL treated at 120 °C.



**Figure S1.** CO<sub>2</sub> adsorption isotherms on amine-grafted SBA-15 with different ionic liquid treatment temperature (△ was treated at 120 °C and ○ was treated at 90 °C).