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## **Supplementary information**

## OSDA-free and steam-assisted synthesis of PHI type zeolite showing unique CO<sub>2</sub> adsorption behaviour

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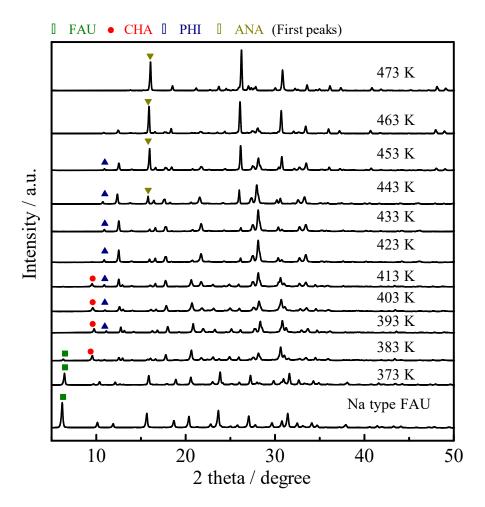


Fig. S1 PXRD patterns of FAU zeolite and products converted from FAU zeolite at different temperatures.

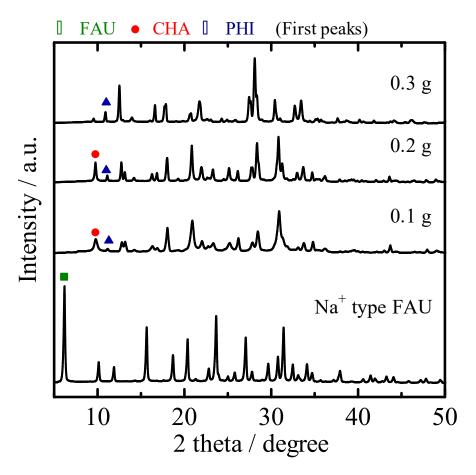


Fig. S2 PXRD patterns of FAU zeolite and products converted from FAU zeolite at different amounts of KOH. The synthesis temperature and time were 393 K and 24 h, respectively.

The crystallinity of the products converted from FAU using 0.1 g KOH was weaker compared to using 0.2 g KOH. On the other hand, the intensity of CHA first peak was not observed with increasing the amount of KOH. Therefore, 0.2 g of KOH was suitable for this interzeolite transformation process.