Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Facile synthesis of $Cu_3(BTC)_2$/cellulose acetate mixed matrix membranes and their catalytic applications in continuous flow process

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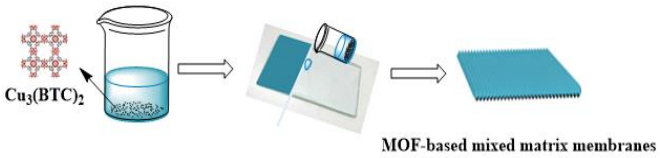
Supporting Information



Scheme S1. Schematic illustration of the $Cu_3(BTC)_2$ MMMs preparation.

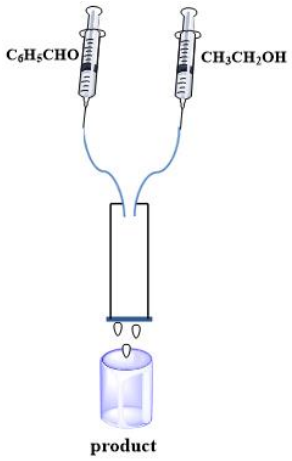


Fig.S1 The experimental set-up for continuous flow experiments.

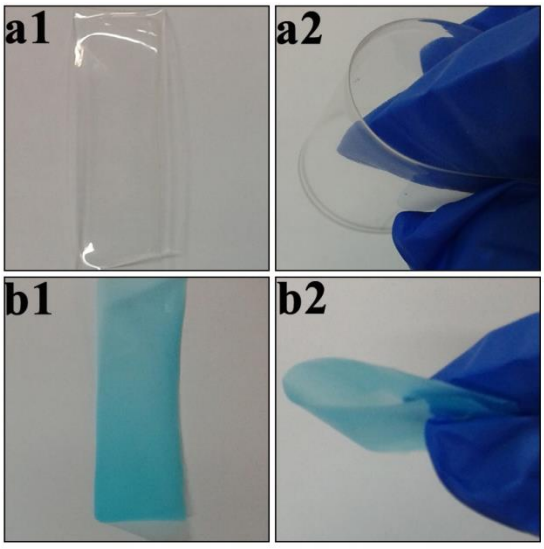


Fig. S2 optical photographs of the CA membrane (a), Cu-BTC-0.6 MMM (b).

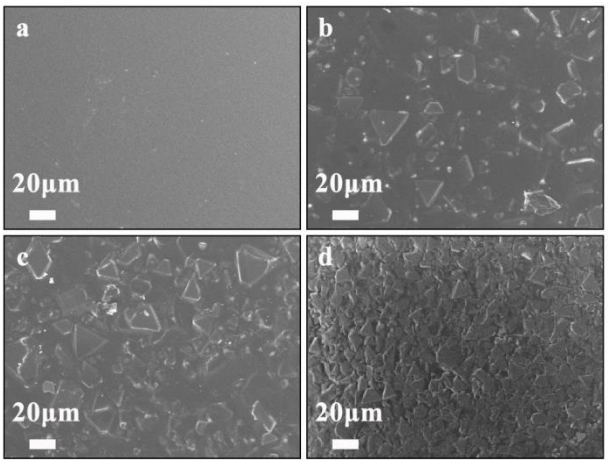


Fig. S3 SEM images of CA membranes (a) Cu-BTC-0.4 MMM (b), the Cu-BTC-0.5 MMM (b) and the Cu-BTC-0.6 MMM (d).

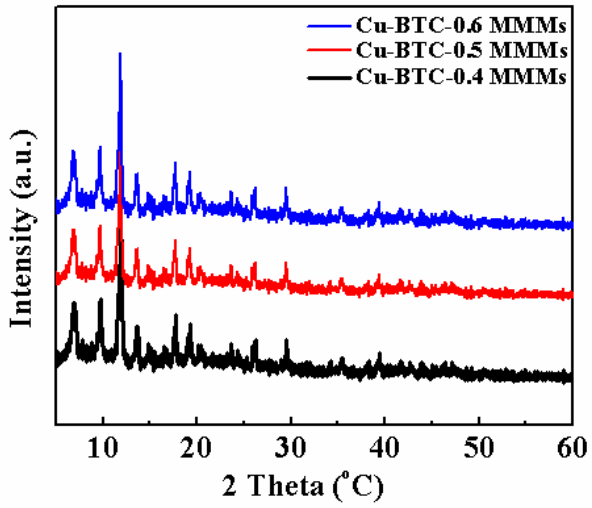


Fig. S4 XRD pattern of Cu-BTC-0.4 MMM (black), the Cu-BTC-0.5 MMM (red) and the Cu-BTC-0.6 MMM (blue).

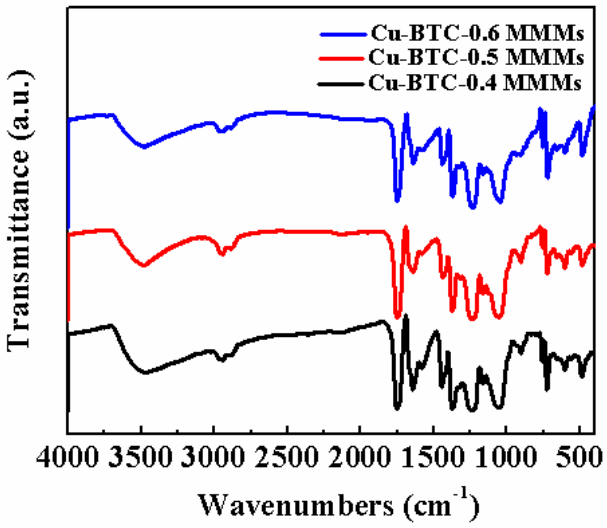


Fig. S5 FT-IR spectra of the Cu-BTC-0.4 MMM (black), the Cu-BTC-0.5 MMM (red) and the Cu-BTC-0.6 MMM (blue).

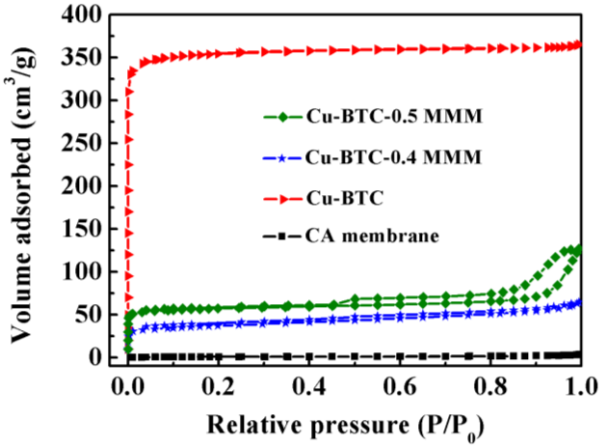


Fig. S6 N_2 adsorption-desorption isotherms and the pore size distributions of CA membrane (a), Cu-BTC (b), Cu-BTC-0.4 (c) and Cu-BTC-0.5 (d).

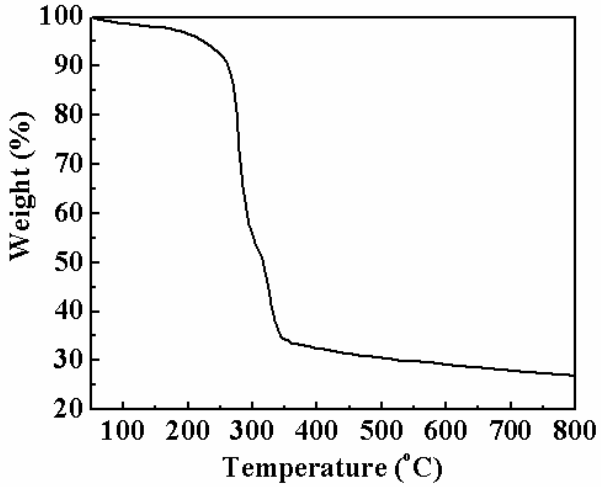


Fig. S7 TG curves of the $Cu_3(BTC)_2$-0.6 MMM after reaction.

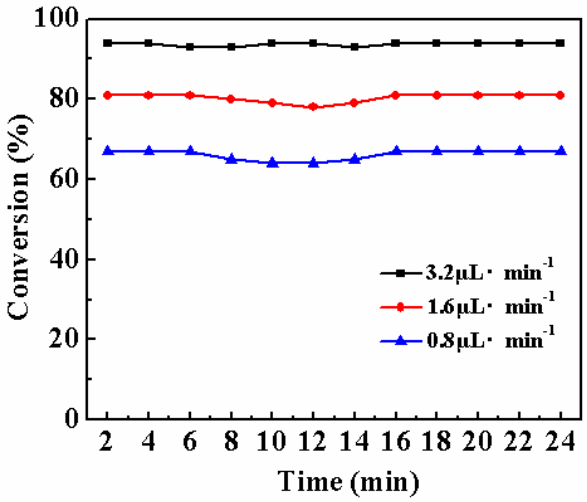


Fig. S8 Acetalization of benzaldehyde with ethanol as a function of time on the $Cu_3(BTC)_2$-0.6 MMM.