Electronic Supplementary Material (ESI) for Catalysis Science & Technology.

Synthesis of 2D MOF having potential for efficient dyes adsorption and catalytic applications

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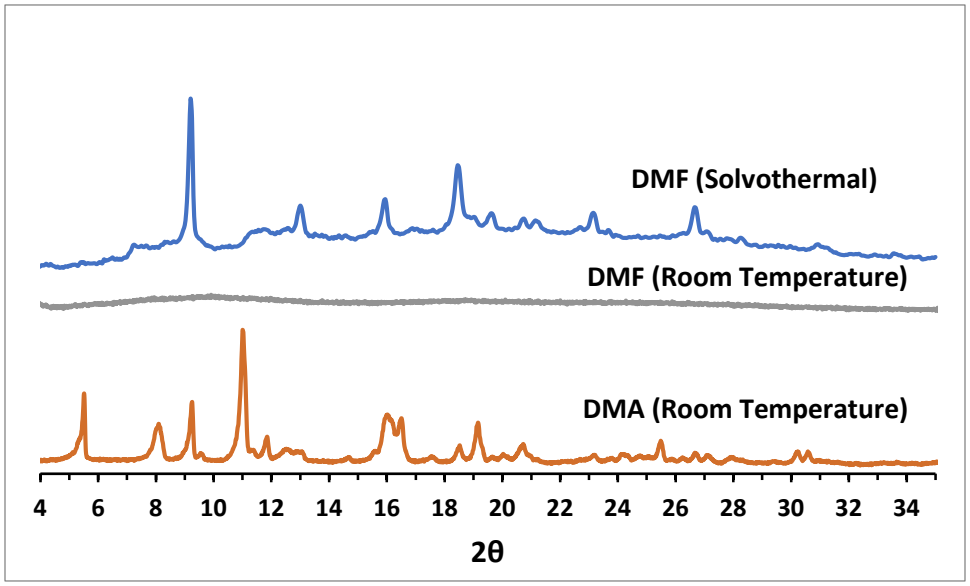

Fig. S1 Powder XRD of the products synthesized in DMA and DMF solvents at different conditions of room temperature and solvothermal.

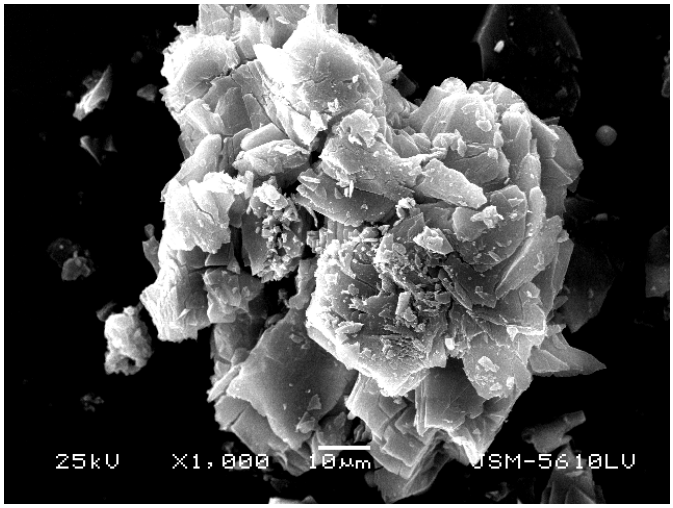

Fig. S2 SEM images of Cu(II)-5N_3IP synthesized by solvothermal method by using *N, N*'-dimethylformamide DMF.

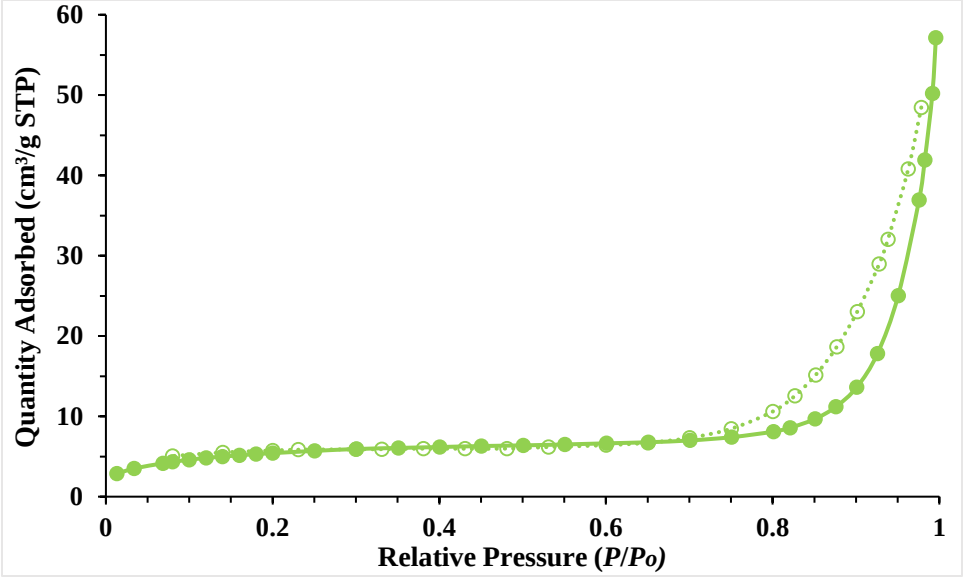

Fig. S3 N_2 adsorption/desorption measurements at 77 K for the activated Cu(II)-5N₃IP MOF samples prepared at room temperature. Solid and dotted lines are presenting adsorption and desorption, respectively, having BET surface area 40 m^2/g.

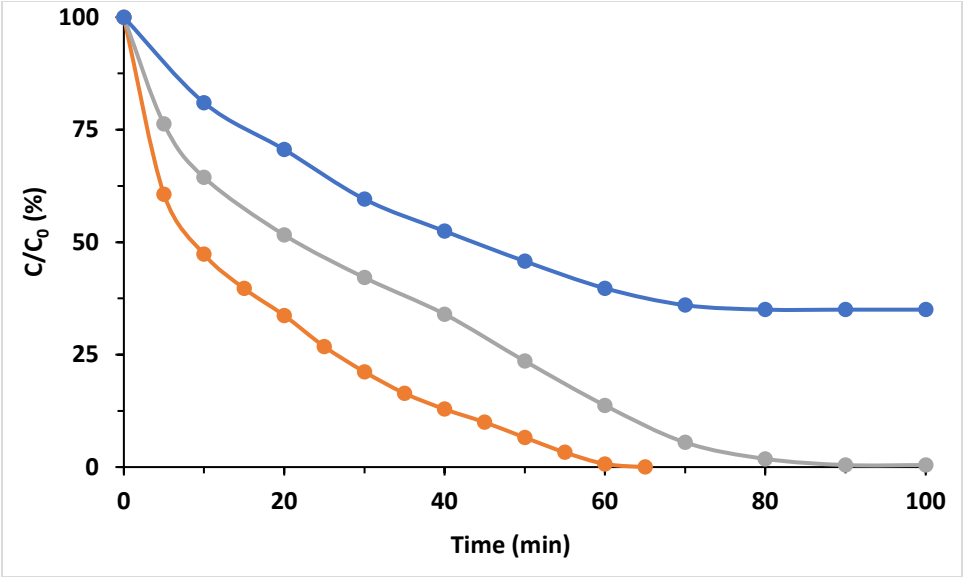

Fig. S4 Comparison between MB (Orange line), CR (Grey line), and RhB (Blue line) for their adsorption by using Cu(II)-5N₃IP MOF.

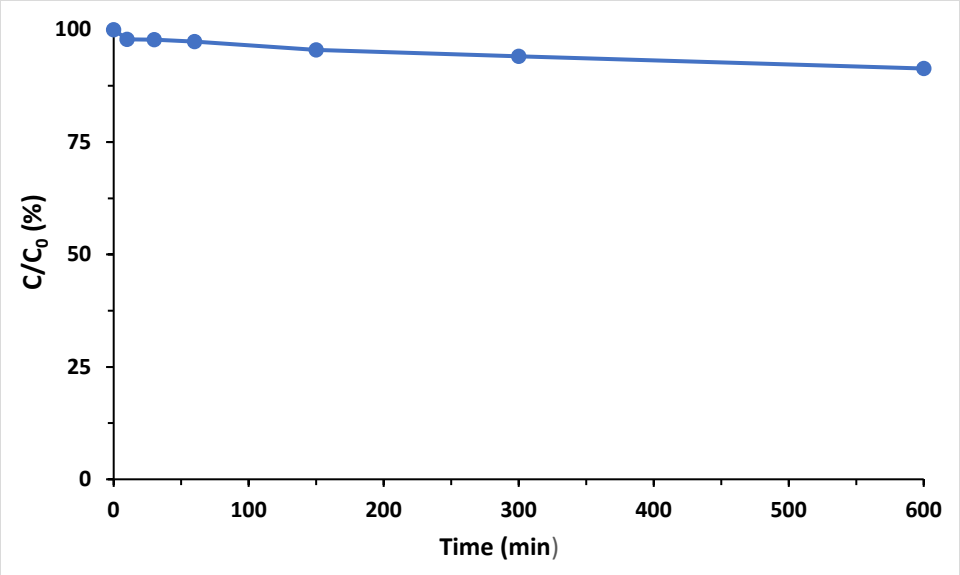

Fig. S5 MO adsorption by using Cu(II)-5N_3IP MOF.

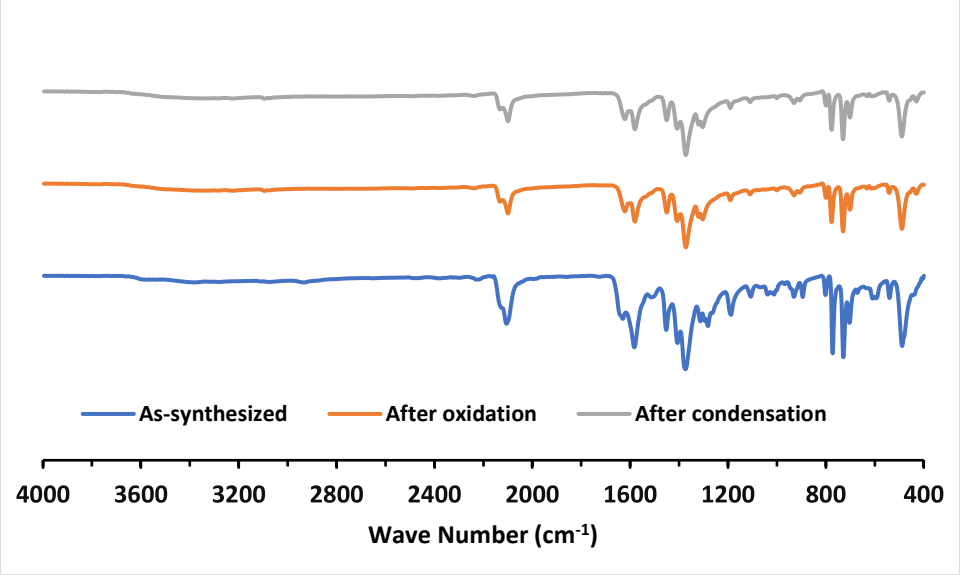

Fig. S6 FTIR of as-synthesized Cu(II)-5N_3IP MOF and recovered after catalytic oxidation and condensation.

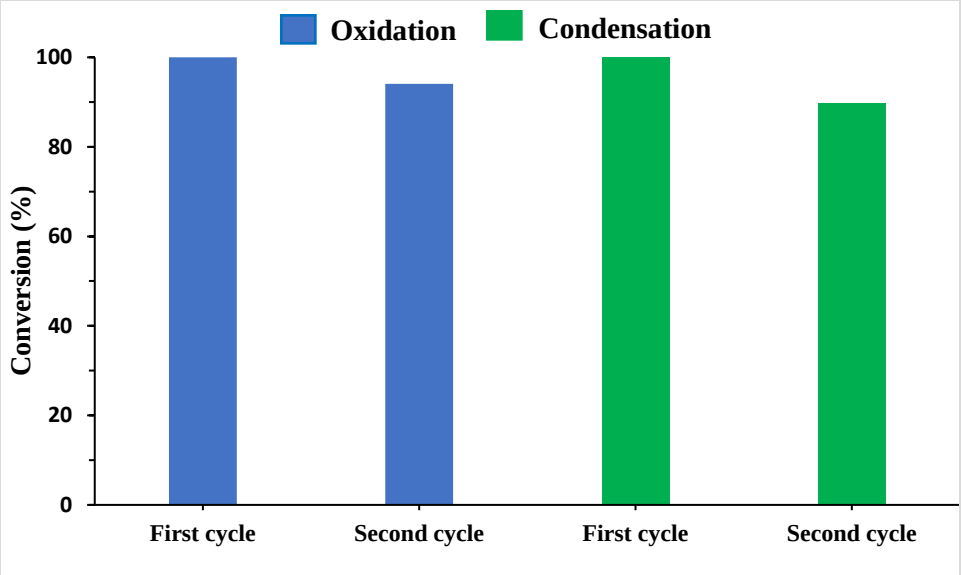

Fig. S7 Performance of the recovered catalyst Cu(II)-5N_3IP MOF for catalytic oxidation and condensation.