

“Assembly line” for Synthesis of Isoprene from Formaldehyde and Isobutene over SiO₂ Supported MoP Catalysts with Active Deposited Carbon

Table S1 elements content on catalysts surface by XPS

Catalysts	C	P	Mo
MoP C	32.89	10.57	1.88
MoP C-10	47.88	2.4	1.34
MoP C-20	44.56	3.4	1.68
MoP C-40	42.8	10.54	2.29
MoP C-100	46.56	9.12	1.47
MoP C-240	49.27	3.01	1.49

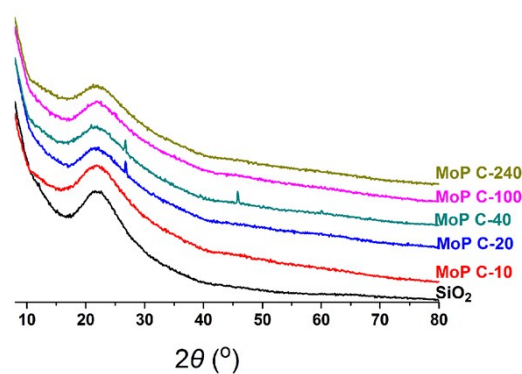


Fig. S1 XRD pattern of MoP C-y catalysts

Table S2 Ratio of peak 1 and peak 2 from NH₃-TPD curves

Catalysts	Peak 2/Peak 1
MoP C	-
MoP C-10	0.09
MoP C-20	0.34
MoP C-40	0.79
MoP C-100	2.05
MoP C-240	3.32
MoO ₃ -10	0.08
MoO ₃ -40	0.72
H ₃ PO ₄ -10	0.73
H ₃ PO ₄ -40	2.58
MoP A-10	0.05
MoP B-10	0.07
MoP C-10	0.09
MoP D-10	0.12

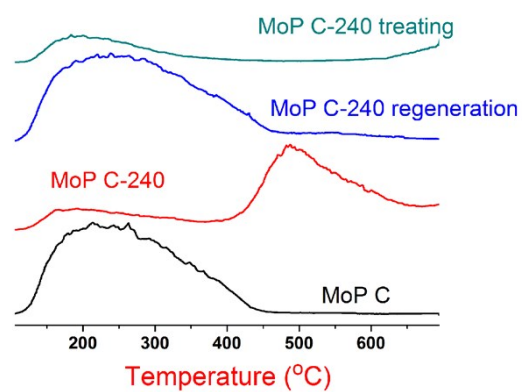


Fig. S2 TPD curves of MoP C catalysts: MoP C, MoP C-240 and MoP C-240 regeneration was treated at 400°C under He, and MoP C-240 treating was treated at 530°C to remove mainly coke under He

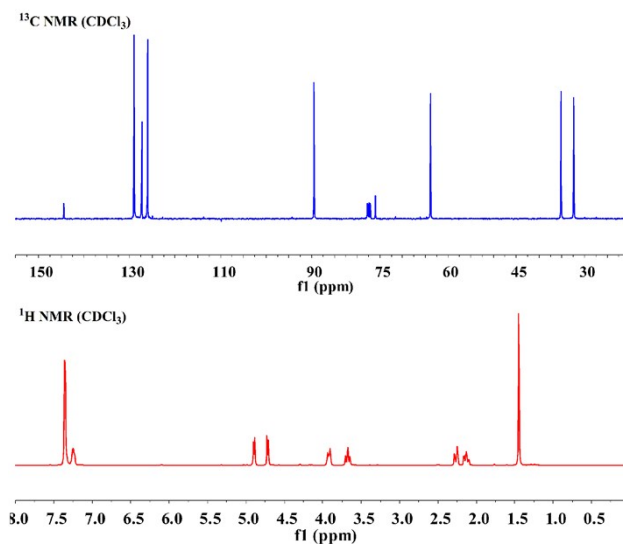


Fig. S3 NMR of MPD

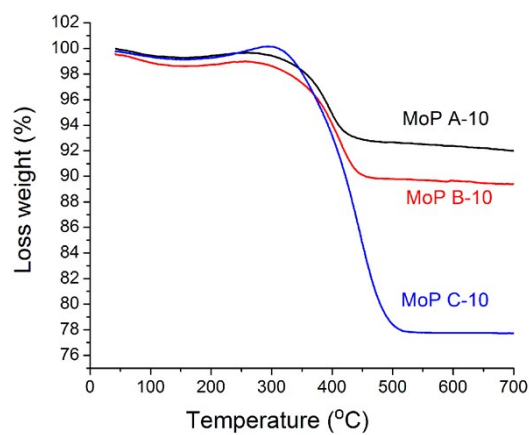


Fig. S4 TG MoP X-10