

Supporting Information

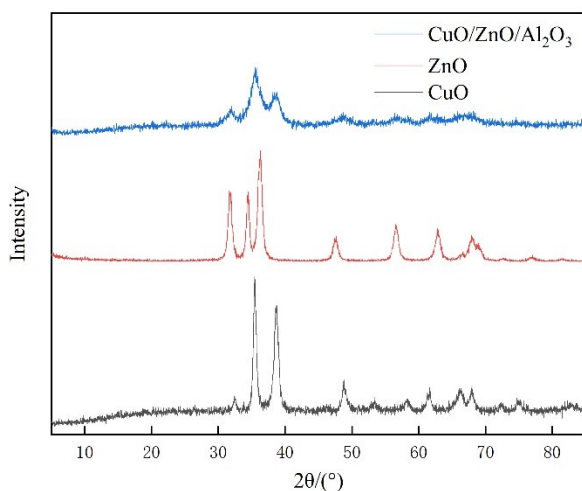


Fig.S1 XRD spectra of CuO, ZnO and CuO/ZnO/Al₂O₃

Table.S1 catalytic performance of only Cu/ZnO/Al₂O₃ and only ZSM-5 on alkylation of benzene

Samples	Syngas and benzene reaction		Methanol and benzene reaction
	Whether to generate methanol	Whether to generate aromatics	Whether to generate aromatics
Only ZSM-5	No	No	Yes
Only Cu/ZnO/Al ₂ O ₃	Yes	No	No
Cu/ZnO/Al ₂ O ₃ and ZSM-5 mixing	No	Yes	Yes