

SUPPLEMENTRY FILE

**HYDROGENATION OF CINNAMALDEHYDE BY PLATINUM SUPPORTED ON 2D AND 3D TRANSITION
METAL SULFIDES**

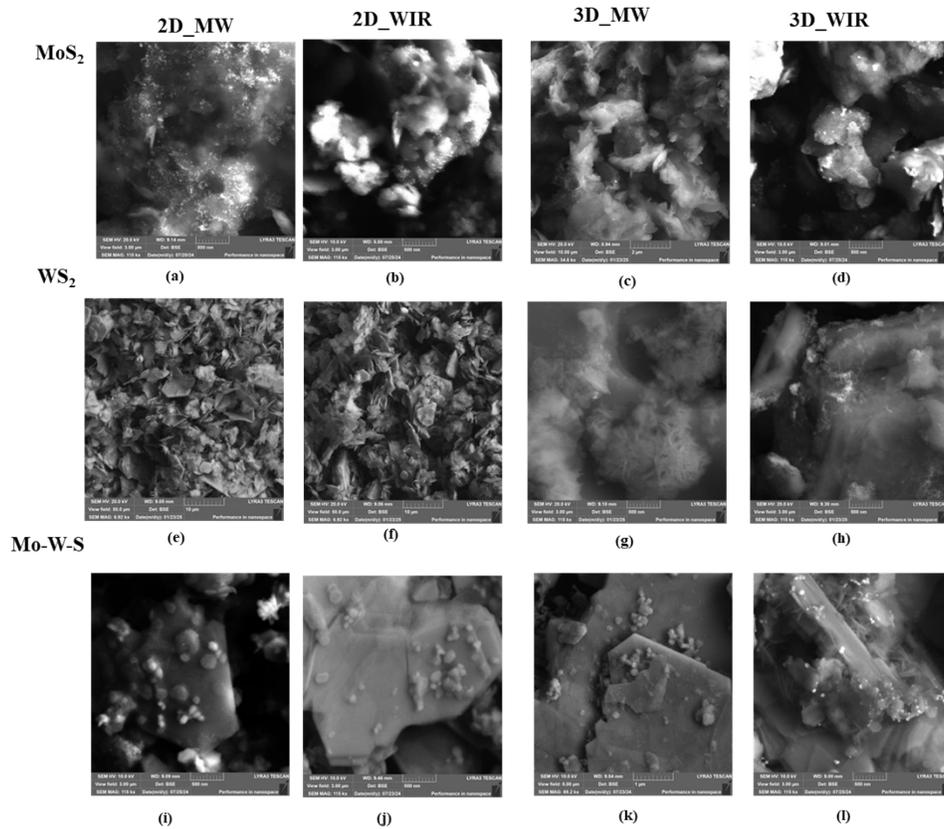
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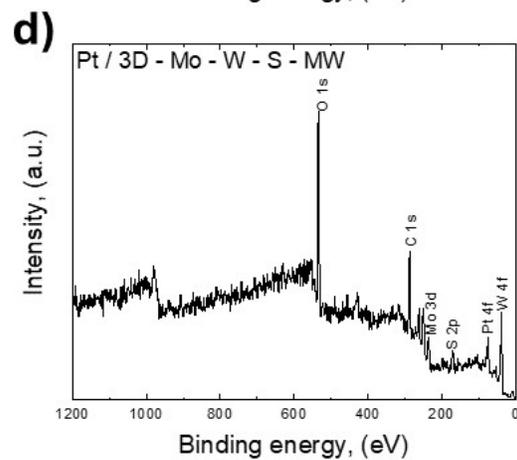
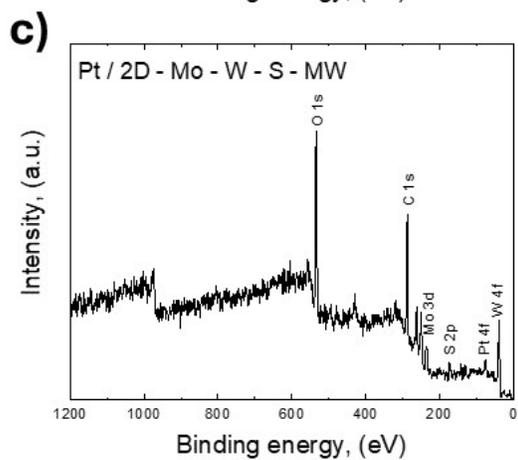
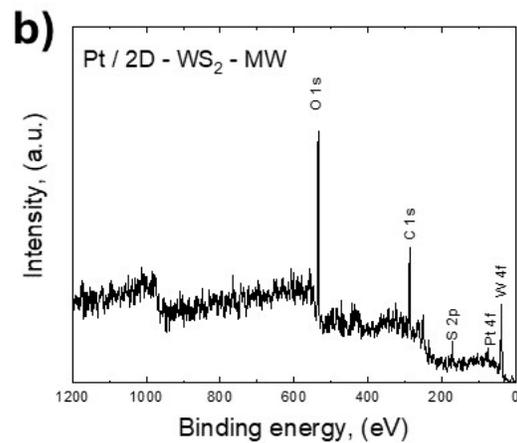
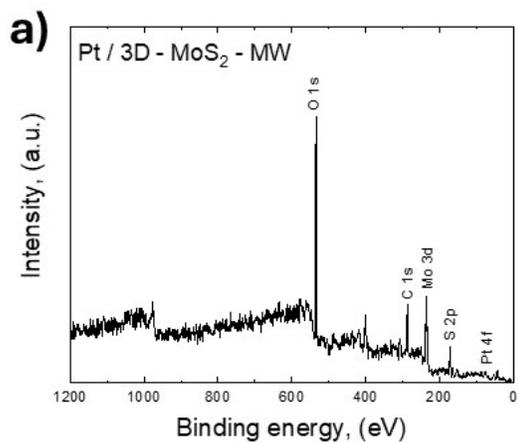
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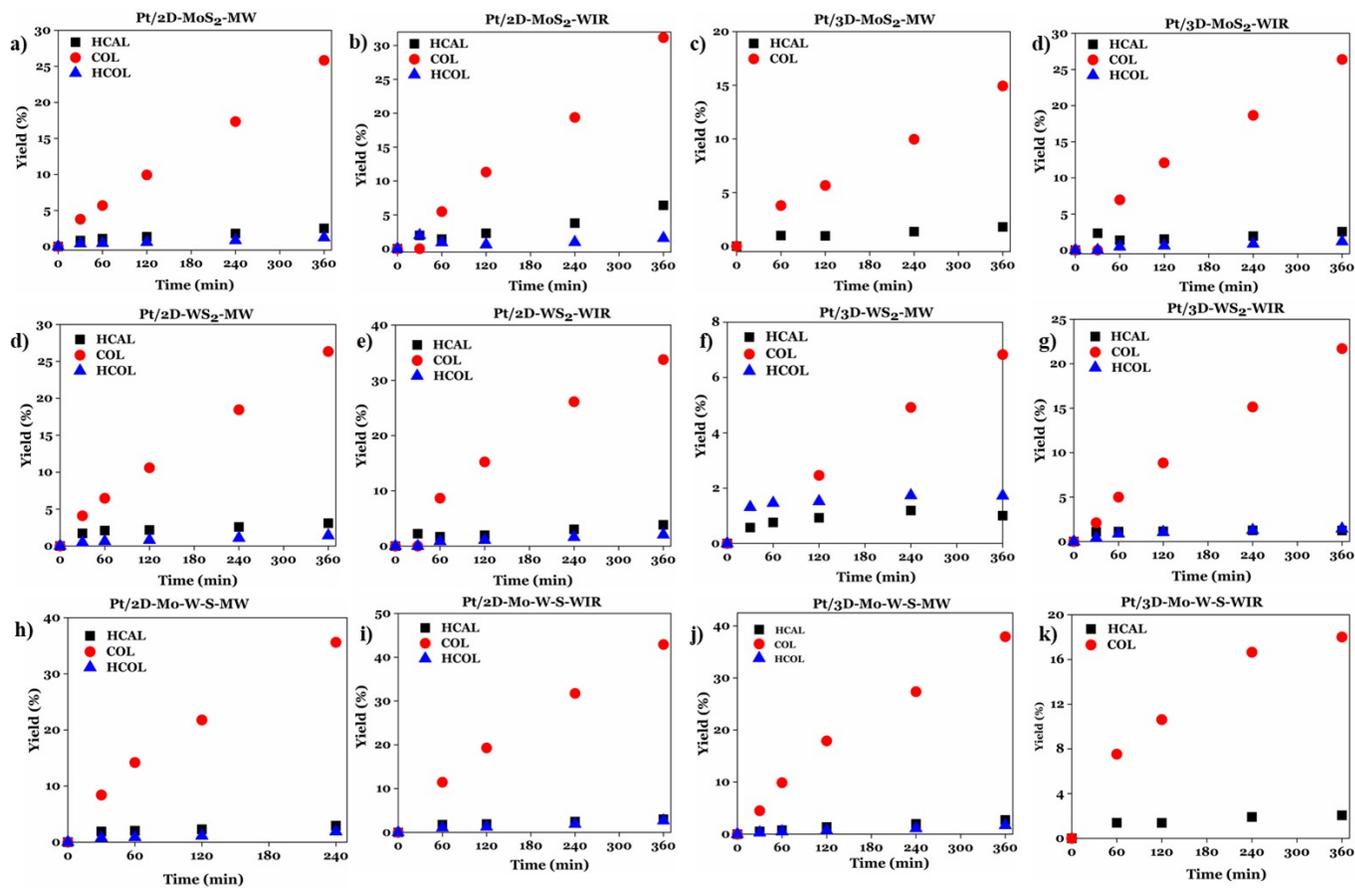
S1: SEM images (a-d) MoS₂ based catalyst (e-h) WS₂ based catalyst (i-l) Mo-W-S based catalyst

S2: BET surface area comparison for Pt supported catalyst on bulk MoS₂, WS₂, Mo-W-S

Support	Catalyst	S _{BET} (m ² /g)
MoS ₂	Pt/3D-MoS ₂ -WIR	27
	Pt/3D-MoS ₂ -MW	21
WS ₂	Pt/3D-WS ₂ -MW	58
	Pt/3D-WS ₂ -WIR	20
Mo-W-S	Pt/3D- Mo-W-S -MW	22
	Pt/3D- Mo-W-S-WIR	5



S3: XPS survey spectra of Pt/3D-MoS₂-MW, Pt/2D-WS₂-MW, Pt/2D-Mo-W-S-MW and Pt/3D-Mo-W-S-MW



S4: Yield of hydrogenation products as a function of time