

Supporting Information

Kinetic Isoconversion Loop Catalysis (KILCat): A Reactor Operation Mode to Investigate Slow Catalyst Deactivation Processes, with Ni/Al₂O₃ for the Dry Reforming of Methane

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XPS data of spent catalysts was performed using a Thermo Scientific ESCALAB 250Xi.

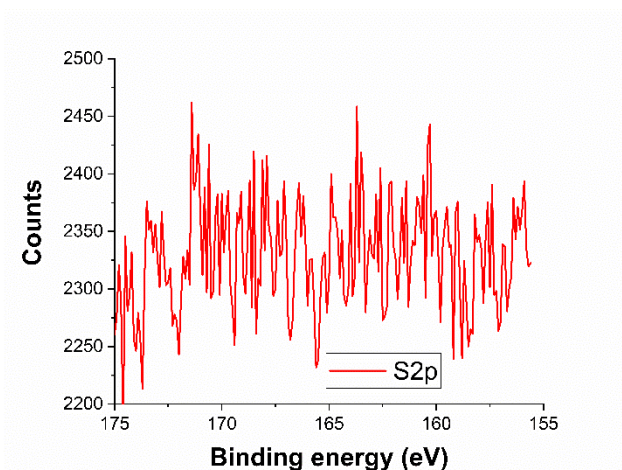


Figure S1: S2p region in the XPS spectrum of spot 1 on the spent catalyst after 80 h DRM. Spot size 500 μ m, step size 0.100 eV, averaged over 15 scans.

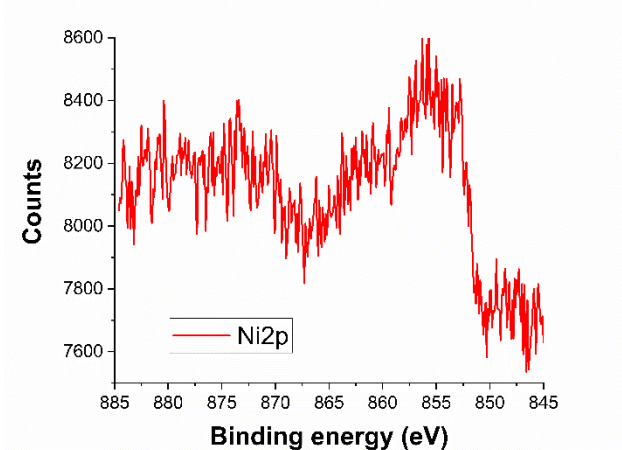


Figure S2: Ni2p region in the XPS spectrum of spot 1 on the spent catalyst after 80 h DRM. Spot size 500 μ m, step size 0.100 eV, averaged over 15 scans.

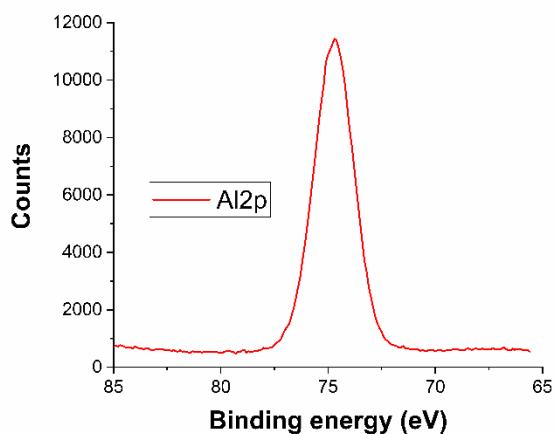


Figure S3: Al2p region in the XPS spectrum of spot 1 on the spent catalyst after 80 h DRM. Spot size 500 μm , step size 0.100 eV, averaged over 15 scans.

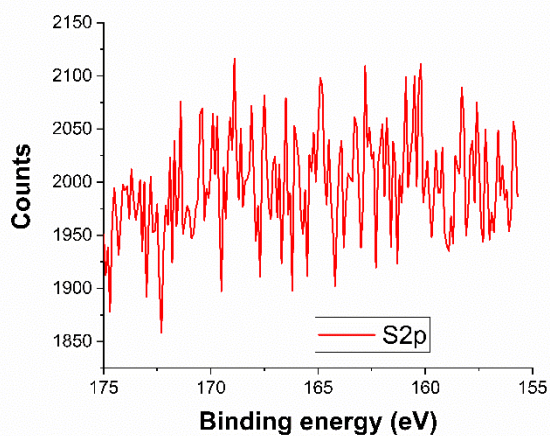


Figure S4: S2p region in the XPS spectrum of spot 2 on the spent catalyst after 80 h DRM. Spot size 500 μm , step size 0.100 eV, averaged over 15 scans.

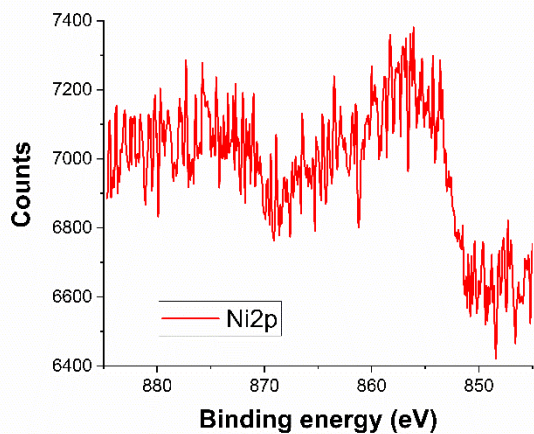


Figure S5: Ni2p region in the XPS spectrum of spot 2 on the spent catalyst after 80 h DRM. Spot size 500 μm , step size 0.100 eV, averaged over 15 scans.

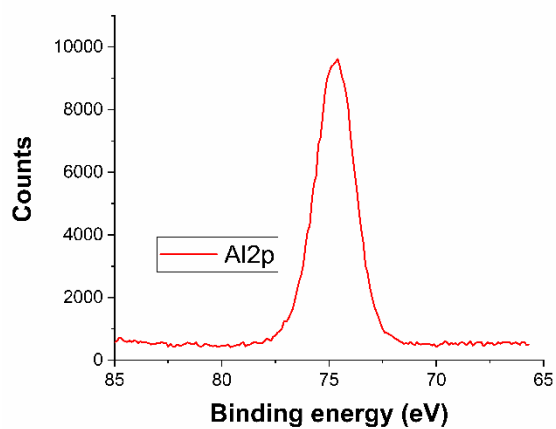


Figure S6: Al2p region in the XPS spectrum of spot 2 on the spent catalyst after 80 h DRM. Spot size 500 μm , step size 0.100 eV, averaged over 5 scans.