

Supporting Information

Low-temperature plasma-assisted preparation of graphene supported palladium nanoparticles with high hydrodesulfurization activity

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◆ Characterization of the Samples

The powder X-ray diffraction (XRD) patterns were recorded on a Rigaku D/max 2400 Diffractometer using Cu-K α radiation ($\lambda=0.15418$ nm) to identify the phases and crystallinity of the particles. FT-IR spectra (4000-500 cm⁻¹) in KBr were collected on a Nicolet Avatar 360 FT-IR spectrometer. Raman measurements were performed with a Renishaw micro-Raman spectrometer at 632.8 nm. The morphology and size of the catalysts were observed under field emission scanning electron microscopy (FESEM, JSM 6700F), and transmission electron microscopy (TEM, Philips Tecnai G² 20). BET surface area was estimated by N₂ physisorption at 78 K in an ASAP 2000 Micromeritics instrument.

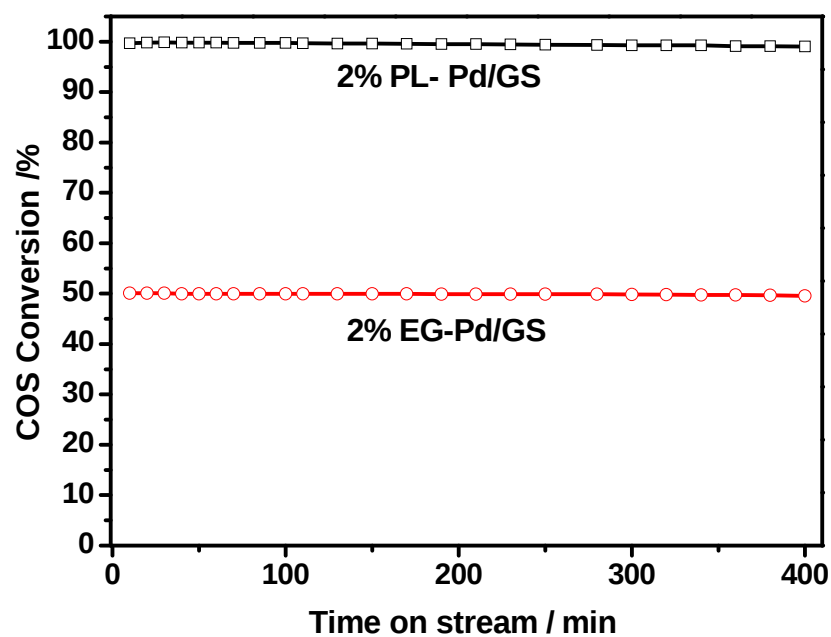


Figure S1. The COS conversion over two kinds of Pd/GS catalysts at 250 °C vs. time on stream.