

## Preparation and Characterization of Ni-anchored Graphite Oxide/MIL-101 Hybrid Composites

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In this work, we have prepared Ni-anchored graphite oxide/MIL-101 hybrid composites (Ni-GO/MIL-101) for hydrogen storage. The Ni-GO/MIL-101 was synthesized using a hydrothermal process, which was conducted by conventional convection heating with Cr (III) ion as a metal centre and telephthalic acid as organic ligands. The surface functional groups of sample were characterized by Fourier transfer infrared spectroscopy (FT-IR). The crystalline structures were measured by X-ray diffraction (XRD). And the hydrogen storage capacity was investigated by BEL-HP at 298 K and 10 MPa. From the results, we suggested that the Ni-GO/MIL-101 would be potentially suitable porous materials as a medium for hydrogen storage.