

Supporting Information

Insights into Chirality Distributions of Single-Walled Carbon Nanotube Grown on Different $\text{Co}_x\text{Mg}_{1-x}\text{O}$ Solid Solutions

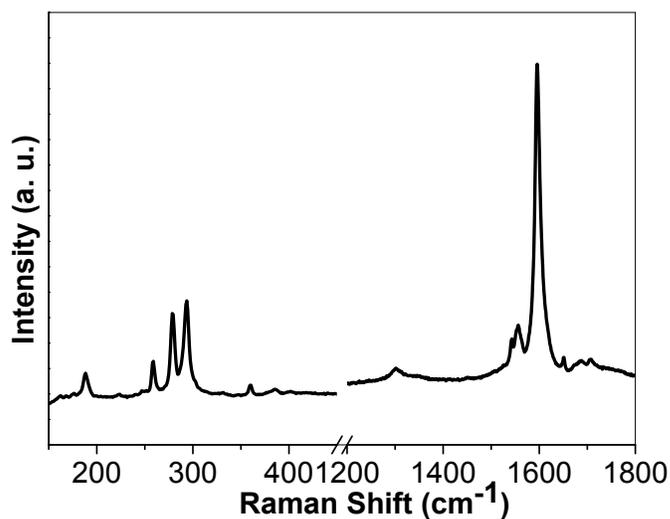


Figure S1. Raman spectrum of SWNTs grown on ALD- $\text{Co}_x\text{Mg}_{1-x}\text{O}$ solid solution at 600 °C using CO as the carbon source.

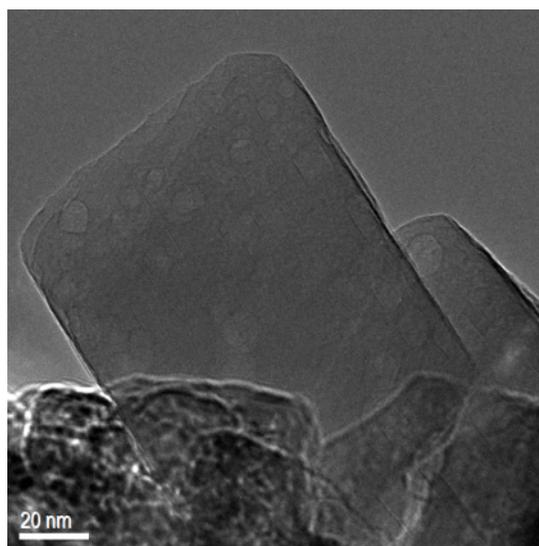


Figure S2. TEM image of ALD- $\text{Co}_x\text{Mg}_{1-x}\text{O}$, showing no Co nanoparticle on the surface of the raw catalyst.

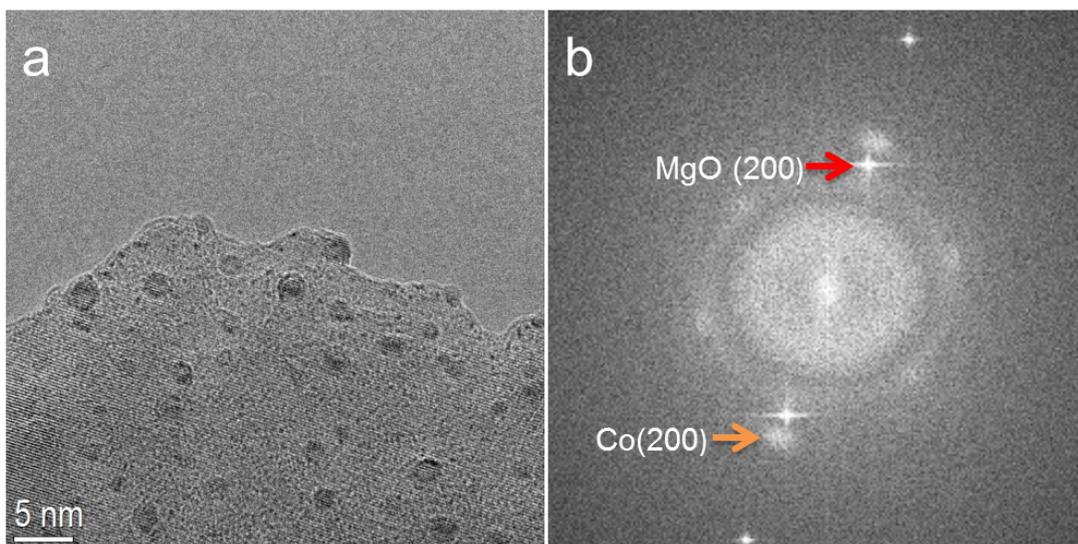


Figure S3. (a) *In situ* TEM image of formed upon reduction of impregnation prepared $\text{Co}_x\text{Mg}_{1-x}\text{O}(1000)$ catalyst at 600 °C in the presence of 6.3 mbar CO. (b) Fast Fourier transform pattern of figure a, showing the epitaxial relationship between Co nanoparticles and MgO support.

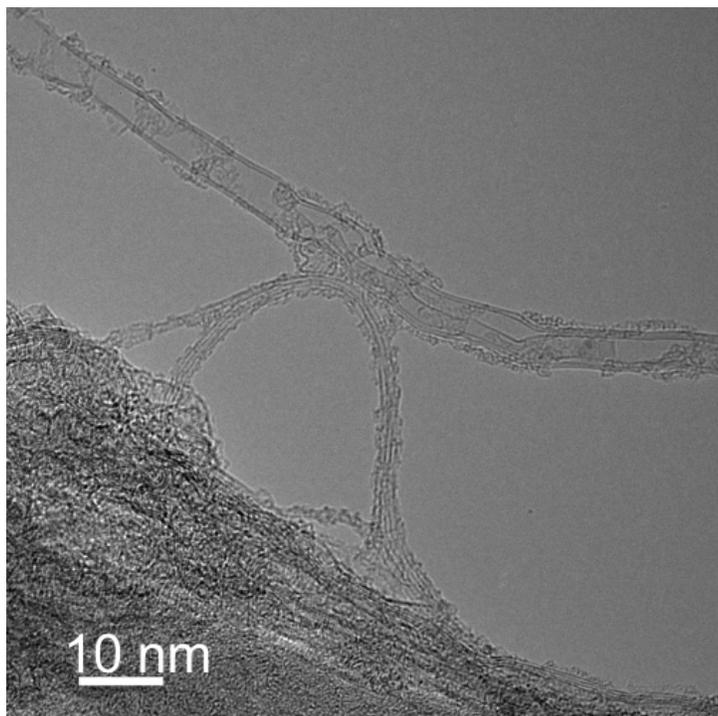


Figure S4. A typical TEM image of carbon nanotubes grown on $\text{Co}_x\text{Mg}_{1-x}\text{O}(450)$ catalyst.

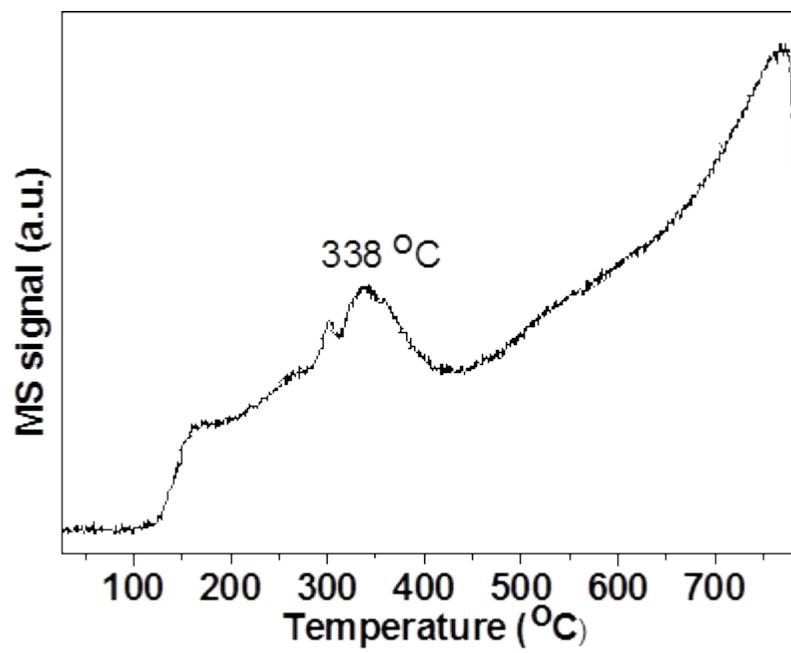


Figure S5. H₂-TPR profile of the Co_xMg_{1-x}O (600) catalyst.