Electronic Supplementary Material for PCCP

Electronic Supplementary Information

Co-Co_2B, Ni-Ni_3B and Co-Ni-B nanocomposites catalyzed ammonia–borane methanolysis for hydrogen generation

Suresh Babu Kalidindi, Amit Ashok Vernekar, and Balaji R. Jagirdar*

Department of Inorganic & Physical Chemistry, Indian Institute of Science, Bangalore 560 012, India

Contents

Figure S1. ^{11}B NMR spectra of ammonia–borane methanolysis reaction before (above) and after (below) using Co-Ni-B catalyst (catalyst/AB = 0.3)

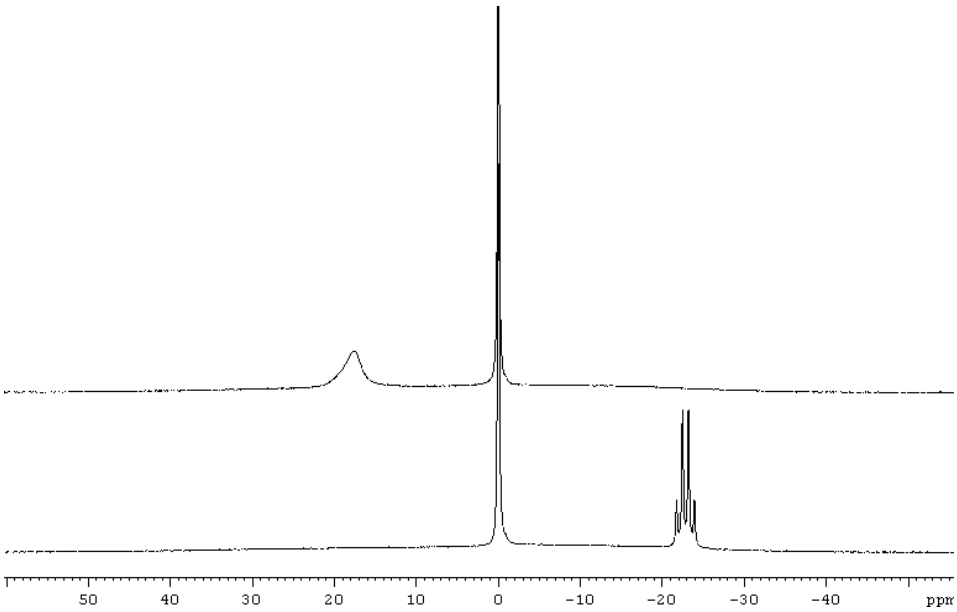

Figure S2. SEM energy mapping images of the Co-Ni-B catalyst: (a) Ni map; (b) Co map; (c) overlap image of Co and Ni energy maps

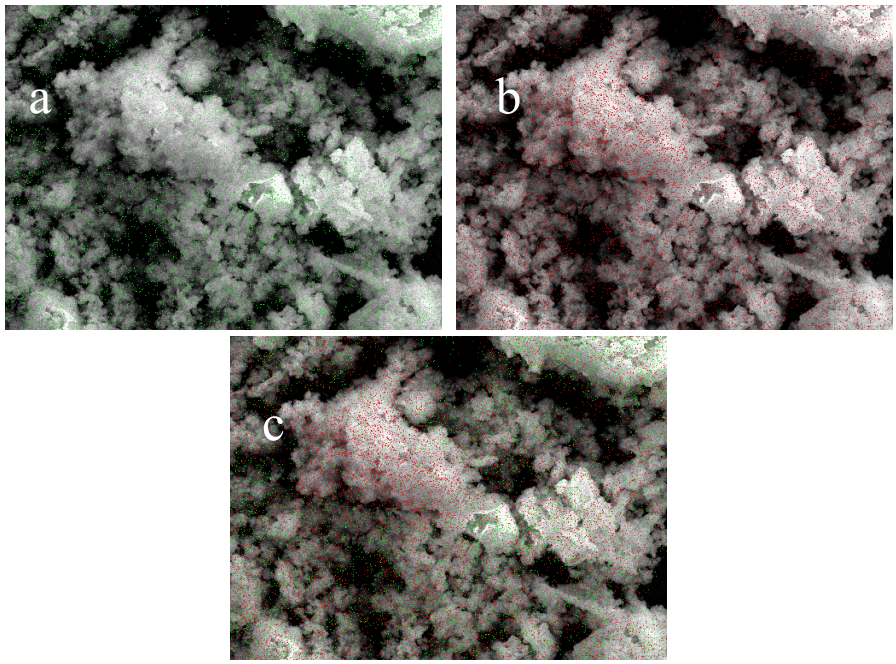

Figure S3. H_2 generation from methanolysis of AB (1 mL of 1 M solution) in the presence of metal salts (metal salt/AB = 0.1, 0.2, and 0.3): (a) $CoCl_2$; (b) $NiCl_2$; (c) $CoCl_2$ + $NiCl_2$ mixture

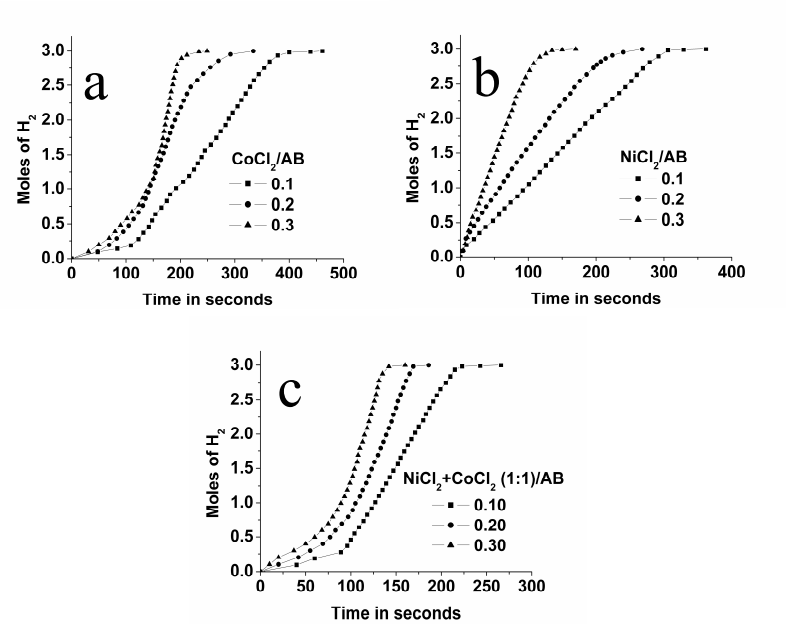

Figure S4. H_2 generation from methanolysis of AB (1 mL of 1 M solution) in the presence of the nanocomposites (catalyst/AB = 0.1, 0.2, and 0.3): (a) Co-Co_2B; (b) Ni-Ni_3B; (c) Co-Ni-B