**The Effect of Barium-Promoted for Microsphere Ru/CeO2 Catalysts in Ammonia Synthesis**



**Figure S1.** Nitrogen adsorption/desorption isotherms (A) and pore size distribution curves (B) for CeO2-MS, 2.5%Ru/CeO2 and 2%M-2.5% Ru /CeO2 catalysts.



**Figure S2.** Nitrogen adsorption/desorption isotherms (a) and pore size distribution curves (b) for CeO2-MS, 2.5%Ru/CeO2-MS and X%Ba-2.5%Ru/CeO2-MS catalysts.



**Figure S3.** Catalytic activity curves of the 2.5%Ru/CeO2-MS and the X%Ba 2.5%Ru/CeO2-MS（X=2/4/6/8）catalysts under 3.8 MPa, 375-450 ℃, 60 mL·min-1 (H2/N2=3)