

MCM-41/PVA Composite as a Separator for Zinc-Air Batteries

MCM – 41 was successfully synthesized. The structure of the MCM-41 was observed by using TEM and illustrated in Figure 3(a). It indicated cylindrical pores typically found in MCM-41. In addition, the XRD pattern in Figure 3 (b) indicates a narrow reflection peak at 2.3° and less pronounced peaks at 4.9° and 4.1° that confirms the characteristics of mesoporous MCM-41. In addition, the surface area of the MCM-41 was measured using N_2 adsorption/desorption isotherm and was calculated to be $1651 \text{ m}^2/\text{g}$ with a mean pore diameter of 2.38 nm .

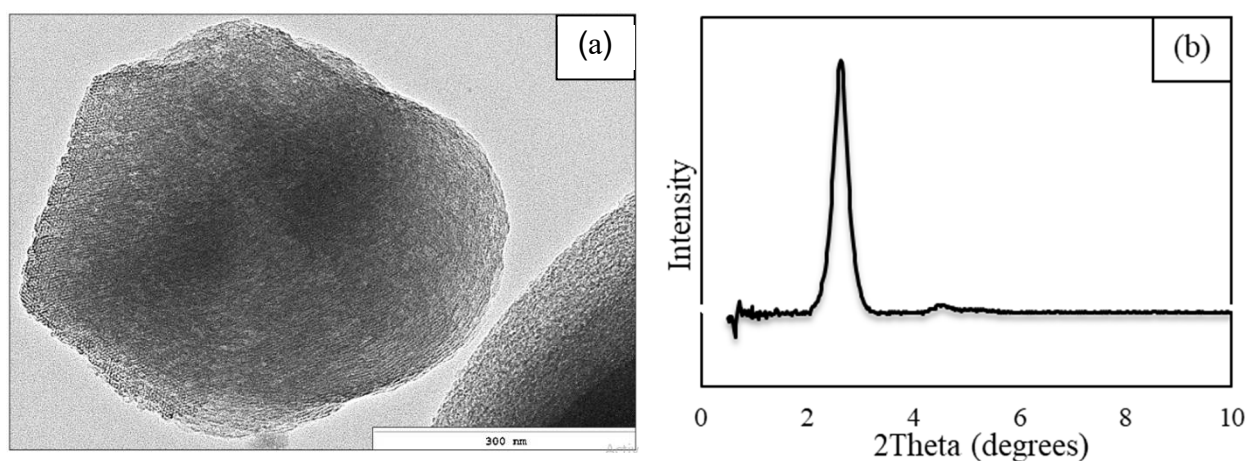


Figure S1. (a) TEM image and (b) XRD patterns of the synthesized MCM-41.