

The effect of polymers onto the size of zinc layered hydroxide salt and its calcined product.

ABSTRACT

Zinhydroxide nitrate, a brucite-like layered material was synthesized using pH control method. Poly(vinyl alcohol) and poly(ethylene glycol) were used at various percentages as size decreasing agents during the synthesis of zinhydroxide nitrate. SEM and PXRD showed the decrease of size and thickness of the resultant zinhydroxide nitrates. TG and surface area data confirmed the decrease of the particle sizes, too. When zinhydroxide nitrates were heat treated at 500 °C, the physical properties of nano zinc oxides obtained depended on the parent material, zinhydroxide nitrate.

Keyword: Zinc layered hydroxide salt; Zinc oxide; PEG; PVA.