

The morphology of Calcium Carbonate in the PAA additive

정옥희, 한현각*, 임미희, 김진아
순천향대학교
(chemhan@sch.ac.kr*)

Calcium carbonate particles with various shapes were prepared by the reaction of sodium carbonate with calcium chloride in the absence and presence of a polyacrylic acid (PAA) at 25°C and 80°C, respectively. The as-prepared products were characterized with scanning electron microscopy and X-ray diffraction. The effects of temperatures and concentration of PAA and CaCO₃ on the crystal form and morphologies of the as-prepared CaCO₃ were investigated. The temperatures and concentration of PAA are important parameters for the control of morphologies of CaCO₃. This research may provide new insight into the control of morphologies of calcium carbonate and the biomimetic synthesis of novel inorganic materials.