

Crystallization properties of pDIB(p-diiodobenzene) using supercritical fluid

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pDIB(p-diiodobenzene) is used widely as an ingredient for PPD(p-phenylenediamine), and PDIB manufactures crystallized particles by using supercritical fluid. PDIB is dissolved into the supercritical fluid to control the pressure at a constant temperature and pressure. The higher the pressure, the bigger the particles created, and the size of the crystallization was found to differ according to the reaction temperature and supercritical solution. the p-DIB of crystallization properties and thermal properties of products were analyzed using XRD(X-ray Diffraction Spectroscopy), DSC(Differential Scanning Calorimeter), TGA(Thermogravimetric Analysis), and FTIR(Fourier-Transformation Infrared). Observations of phase morphology were performed using SEM(Scanning Electron Microscopy).

The method of crystallization which utilizes a supercritical fluid is found to be an important processing variable when compared to the existing crystallization method.