

The annealing effect on thermal diffusivity of polyaniline (emeraldine base) measured using photoflash technique

ABSTRACT

In this paper, we present the annealing effect on thermal diffusivity of Emeraldine Base–Polyaniline (EB). The thermal diffusivity was measured at room temperature using photoflash technique. The excitation source used consists of a high intensity camera flash. A series of samples annealed at different temperature (25°C, 100°C, 150°C, 200°C, 250°C and 300°C) were investigated and the annealing effect on the thermal diffusivity was discussed in detail. The Scanning Electron Microscopy (SEM) and X-ray Diffraction (XRD) measurement was done to analyze the annealing effect on morphology and sample structure.

Keyword: Annealing effect; Thermal diffusivity; Emeraldine Base–Polyaniline (EB); Photoflash