The characteristics of electrospun carbon nanofibers with chemical activating agent

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Polyacrylonitrile (PAN) - based carbon nanofiber (CNF) was obtained via electrospinning. To make microporous carbon nanofibers, zinc chloride calcination was adopted. Carbonization and calcination were experimented coincidentally. The surface images of CNFs through zinc chloride calcination were investigated by using scanning electron microscope (SEM) and transmission electron microscope (TEM). The specific surface area and pore distribution were obtained through BET analysis apparatus by using BJH and H-K method. The microporous surface and volume increased more than meso and macro. The micropore of carbon nano fibers developed in proportion to the weight of zinc chloride.