# Electrospun Silica Nanofibers from PVP and P123 Blend Polymer Solutions

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Silica nanofibers were fabricated by electrospinning method using PVP/P123 blend polymer solutions. Here, a triblock copolymer (Pluronic P123, EO20PO70EO20,Mav=5800) was used as the structure directing agent and polyvinyl pyrrolidone (PVP) as the fiber template. The samples were characterized by X-ray diffraction (XRD), scanning electron microscopy (SEM), Fourier Transform Infrared (FT-IR), and Brunauer-Emmett-Teller (BET). It was found that the silica nanofibers synthesized in this work had uniform pore structure with smooth surface. An average fiber diameter, average pore diameter, and surface area were about 300 nm, 2.7 nm and 607 m2 g-1. Adsorption equilibrium data of lysozyme on the synthesized silica nanofiber were correlated well with Langmuir and Sips equations.