Abstract Submitted
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**Studies on the controlled morphology and wettability of PS surfaces by electrospinning or electrospraying.**[1] JIANFEN ZHENG, AIHUA HE, CHARLES HAN, Institute of Chemistry, Chinese Academy of Sciences, INSTITUTE OF CHEMISTRY, CHINESE ACADEMY OF SCIENCES TEAM — Electrospinning/electrospraying is a simple and effective way to fabricate various polymer surfaces such as beads, fibers and other shapes in the range of micro- to nanometer. Various surface morphologies have been produced by electrospinning or electrospraying: beads with different sizes and shapes, bead-on-string structure with different aspect ratios and fibers with different diameters and shapes. Physical properties of the PS solutions such as viscosity, surface tension and conductivity greatly influence the electrospun or electrosprayed PS morphology. The wettability of a solid surface is greatly influenced by its surface morphology: A spin-coated PS membrane has a water contact angle of 97°, while electrospun PS membranes have water contact angles around 150°. The most hydrophobic membrane has a water CA of 159.5°.

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