

## Surface Modification of Carbon Fibers by Plasma Treatment

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The interfacial properties of carbon fibers are cardinal in their various applications of fibers-reinforced composites. The surface of carbon fibers was modified by plasma treatments, and the effects of gas flow rate, power intensity, and treating time were evaluated. Also, the surface of treated carbon fibers was characterized by contact angle measurements, SEM observation, XPS, and FT-IR analyses. The SEM observation exhibited distinct changes of surface morphology by treatments. The existence of new surface functional groups containing oxygen was confirmed by FT-IR and XPS analyses. These changes may improve the interfacial binding behavior in the composite applications.