

Abstract Submitted  
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**Modification of adhesion ability of carbon fabrics for composite materials**<sup>1</sup> VIKTOR ZHELTUKHIN<sup>2</sup>, Retired, AIDAR GARIFULLIN, MARS SHAEKHOF<sup>3</sup>, Kazan National Research Technological University — Modification of the carbon fabrics by RF capacitive coupled discharge at low pressure (13-130 Pa) is studied. The plasma treatment leads to increasing of surfaces area of the carbon fibers, to creation of active radicals, and to decreasing of wetting angle. The cumulative impact of these factors leads to increasing of wettability of technical textiles. It is established that carbonyl and hydroxyl functional groups are formed after RF plasma treating. Regulation of carbon fabrics properties by RF capacitive coupled plasma allow us to create composite materials which have strength values by 15-20% higher than control samples.

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