MODIFICATION OF SURFACE TI-FIBER BY AIR, NITROGEN AND ARGON PLASMA ON AIR

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Structural transformations on a surface Ti-fiber after its processing air, nitrogen and argon plasma on air are studied by means a Quanta 2002D scanning electron microscope with thermal emission. The surface structure of titanium before and after three types of plasma treatment have not changed, it consists of large crystals. The presence of porosity in the surface layer after treatment with plasma is not detected. After treatment of argon plasma on the surface of the titanium formed a single crater with a diameter of 2–3 μm (2–3 crater 1 sq. mm surface).

After treatment with air plasma across the surface finish of titanium particles of flat shape with a size from 20–40 to 100–120 nm are formed.

Elemental composition has been determined in various areas of Ti-fiber surface before and after treatment with plasma.

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