CONTENS

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FABRICATION OF MATERIALS BASED ON TI₂ALC MAX-PHASE

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SYNTHESIS OF NANOSTRUCTURED SnO₂ COATINGS THROUGH

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A.N. Sonina, O.M. Simanenkova, G.A. Vikhoreva, L.S. Galbraikh

PROPERTIES AND ELECTROSPINNING OF CHITOSAN/POLY (VINYL ALCOHOL) BLEND FORMING SOLUTIONS 44

An effect of the composition on properties of chitosan containing solutions has been studied in connection with its electrospinning processing into fibers by using apparatus Nanospider (p. 44-50; fig. 6).

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AN EFFECT OF CARBON NANOTUBES AND NANO-INCLUSIONS OF METAL SALTS ON THE STRUCTURE

The introduction of carbon nanotubes (CNT) into an adhesive composition results in size reduction and compaction of the dispersed phase of the epoxy matrix, ultimate strain increases up to 25%. This yields an increase in the strength of the adhesive joint by 16% as compared to the basic composition.

Introduction of metal salts as nanoinclusions into an epoxy matrix composite is accompanied by both formation of a new structural phase and enhancement elastic and strength properties under study: compression strength, shear strength and crack resistance under compression (p. 51-58; fig. 8).