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Carbon plastics based on thermoplastic polyimide binders modified with nanoparticles

Yudin V., Svetlichnyi V.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, Pleiades Publishing, Ltd.Polyimides (PIs) crystallized from melts are promising thermally stable, heat-resistant plastics with high destruction viscosities. Nanocomposites that in turn serve as matrixes for carbon plastics can be obtained on the basis of PIs filled with carbon nanoparticles of various structures and morphologies. The presence of the composite-i--composite structure gives rise to the enhancement of dissipation properties of the polymer matrix in particular and to an increase in the crack resistance of the carbon plastic in general.

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