

Research into Intensive Plastic Deformation of Polyamide-6-Based Materials

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Abstract: The process of intensive plastic deformation of nanomodified polymer-carbon materials on the example of solid-phase plunger extrusion is investigated. The dependencies of the required pressure for molding samples of nanomodified polymer PA-6-based materials from the extrusion temperature and the composition of the modifier have been produced. It is shown that solid-phase plunger extrusion occurs at the optimum temperature of processing and at 10–30 % reduced pressure of molding producing better surface extrudates.
