Algorithms and Software of Computer-Measuring System for Research of Thermophysical Characteristics of Polymer Composites in Curing

A. A. Zhyvenkova, O. S. Dmitriev

Tambov State Technical University, Tambov

Key words and phrases: algorithms and software; computer-measuring system; curing process; decision support module; polymer composites; thermophysical characteristics.

Abstract: The algorithms and software of the computer-measuring system which provides the calculation of thermophysical characteristics during heating and curing of polymer composites are proposed. It is based on a set of algorithms that solve the inverse heat conduction problem in different ways. A special feature is the development of a decision support module when choosing a calculation algorithm that guarantees the applicability of the chosen algorithm and the minimum error values calculated by it under the given experimental conditions.