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RESEARCH ON MICROSATELLITE CARBONFIBER-STRUCTURE FORMING TECHNOLOGY BY
CONTINUOUS FIBER 3D PRINTING

Abstract

The application of micro satellite is one of the important development trends of the future space industry, which need to meet the requirements of light weight, short period and low cost. The Microsatellite Carbonfiber-structure Forming Technology by Continuous Fiber 3D Printing has been presented in this paper, precise geometry model has been set up, the continuous carbon fiber structure has been optimized, 3d printing device of continuous fiber is developed, 3d printing continuous satellite structure has been completed, and the design method has been verified by static stiffness and modal test finally. The short period and low cost microsatellite carbonfiber-structure will be realized by the digital design and manufacture of satellite structure, which will further promote the rapid development of micro satellite.