

IAF MATERIALS AND STRUCTURES SYMPOSIUM (C2)
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HIGH-POWER ROCKETRY INNOVATION FOR DEVELOPMENT OF A SUSTAINABLE
AEROSPACE MODEL

Abstract

High power rockets have a great impact on the development of space systems at academic and professional levels, they're key to the experimentation of aerospace projects, at the same time, the ecological footprint produced is worrying and ineffective for the purposes of a sustainable planet, this paper discusses research and innovation in various testing methods in alternative materials for the manufacture of these aerodynamic airframes and solutions are proposed to reduce the environmental impact, combating the production of CO2 emissions generated by conventional fuels, implementing third-generation biofuel, making space flight greener; in turn, to bring about a revolution in the manufacture of composite materials employees in rocket structures, using natural fibers, such as coconut shell or charcoal fibers, with the main objective of contributing to the evolution of the human being in the space area.