

Initial Flight Result of IKAROS and Perspective to Future Deep Space Missions by Solar Power Sail Technology

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Abstract

The solar power sail technology demonstration mission IKAROS was launched successfully on 21 May 2010 by H-2A from Tanegashima Space Center of JAXA, as a piggy bag to Akatsuki, the Venus Climate Orbiter (VCO). A sail of 15m square size will be deployed and photon enabled propulsion/attitude-control will be demonstrated. Thin-film cells are also installed on the sail and the power generation is also an item for demonstration. Here we report initial results from the technology demonstrations in deep space en route to Venus.