

EXPERIMENTAL RESEARCHES OF STARTUP AND BLOCKING OF LOOP HEAT PIPES OF THE SPACECRAFT THERMOREGULATION SYSTEM

**A. N. Sokolov, N. N. Tarnovsky, M. Z. Schedrinsky, K. V. Rybas, M. G.
Vorobiev, K. N. Sukharev, T. N. Sobolevskaya, A. I. Leonteva, A. D. Pavlova**

Branch of OAO "Corporation "Kometa" – "RDC OEOC"

194022, Saint-Petersburg, Shatelena str. h. 7, lit.A.

Phone: (812)3316106

E-mail: asokolov_kometa@nxt.ru

Abstract

The primary goal of the spacecraft system of thermal regulation is maintenance of the set temperature of thermoregulation object. Using system of thermal regulation with loop heat pipes is a perspective way for thermoregulation of onboard equipment devices. Results of researches of such system by different thermal influences which were received in vacuum tests are represented in this article. Influence of electric heating unit capacity, which was placed on compensation chamber of loop heat pipe, on blocking of loop heat pipe. Startup and blocking of loop heat pipe in different capacity, applied to loop heat pipe compensation chamber, and in different temperature of loop heat pipe evaporator.