

Poster Session (P)
Poster Lunch (1)

Author: Mr. Botao DUAN
China, sd2006dbt@163.com

RESEARCH ON PLASMA-DISCHARGING PROTECTION TECHNIQUE FOR FLEXIBLE SOLAR
ARRAYS OF CHINA'S SPACE STATION AND ON-ORBIT EXPERIMENT VERIFICATION

Abstract

The plasma-discharging mechanism of high voltage flexible solar arrays was interpreted in this thesis. Considering the plasma-discharging damage to solar arrays, unique plasma-discharging protection techniques were applied in design of China's space station's flexible solar arrays. A test array was produced to verify the plasma-protection techniques and has been launched with the space laboratory TG-2 in september 2016. The results on-orbit indicate the effectiveness of the plasma-protection techniques used in this thesis.