

SPACE PROPULSION SYMPOSIUM (C4)  
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THE LHT-100 HALL ELECTRIC PROPULSION SUBSYSTEM DEVELOPMENT FOR THE XX-2  
SATELLITE

**Abstract**

XX-2 is a new technology testing satellite. LHT-100 Hall electric propulsion subsystem has been developing by Lanzhou Institute of Physics, it will be launched in 2016 to carry a space flight experiment, in order to obtain the space flight experiment data to verify the space environmental adaptability, compatibility with the spacecraft, space working characteristic, and the difference of space flight performance and ground data of Hall electric propulsion subsystem. The LHT-100 Hall electric propulsion subsystem is composed of a digital interface and control unit (DICU), one propellant storage and feed unit (including a xenon tank, one pressure regulator module and one flow control module), one power processing unit (PPU), one filter unit (FU), and one LHT-100 Hall thruster. This paper firstly introduces the system control strategy and orbit test content. And then it summarizes the qualification experiment of each equipment during the qualification phase of LHT-100 Hall electric propulsion subsystem. In the end, the integration test of the Hall electric propulsion subsystem is presented.