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THE DESIGN AND IMPLEMENTATION OF THE MANNED ENVIRONMENT CONTROL OF
“TIANGONG-1” SPACECRAFT

Abstract

Based on the new characteristics of the manned environment control of “Tiangong-1”, aiming for satisfying the comfortableness of the astronauts, various manned environment designs are performed in “Tiangong-1” such as the atmosphere environment control design, noise control design, radiation control design and combined vehicle thermal support design, to control the atmosphere pressure, temperature and humidity, wind speed, gas components, noise and radiation level within the comfortable limits of astronauts. “Tiangong-1” mission indicates that the manned environment system design is correct, and it can provide strong supports for the health and working efficiency of astronauts during spaceflight missions.