

目次

工程技术

- 月地低能返回轨道最优控制策略研究 刘 玥,付凯林,荆武兴,钱冀婧(1)
- L1 点月球天梯绕地运行过程动力学 王晓慧,毛李恒(7)
- 面向空间站桁架的三支机器人步态规划与研究 赵京东,韩均广,倪风雷,赵亮亮,刘 宏(14)
- 空间站舱体转位试验系统动力学匹配设计与仿真 胡雪平,时军委,沈晓鹏,刘 艳(20)
- 充气式再入与减速系统柔性热防护材料的热冲击试验 曹 旭,黄明星,丁 弘,唐明章(26)
- 基于故障-测试相关模型的运载火箭测试点优化设计方法 周 虎,胡海峰,刘清竹,宋征宇(34)
- 视觉感知启发的面向出舱活动的物体识别技术研究 张菊莉,马 钟,贺占庄,周革强,何双亮(41)
- 面向星表探测的航天服关节系统概念设计 王振伟,胥任杰,刘双印,徐利梅,谢晓梅,范守文(48)
- 空间载荷中利用调制光源去除 PSD 背景光影响的方法 杨鲁新,董文博(55)
- 变拓扑 3-RSR 多面体对接机构的设计与研究 刘 洋,姚燕安,何妍颖(61)
- 基于尺寸链原理的样品转移过程容差设计与分析 傅丽佳,刘 洲,王卫军,郑云青(67)
- 柔性薄膜太阳能电池与乙烯-四氟乙烯薄膜复合材料电-热-力性能试验研究
..... 阴 悦,胡建辉,陈务军,李一坡(73)
- 大型星载薄膜天线高精度制造技术研究 谢 超,严 飙,刘 钰,张利平,彭福军(79)
- 负载自适应火工品装置输出特性的影响分析 水 龙,雷小光,康昌玺,李昊璘,付朝晖(84)
- 推进飞行器低温推进剂在轨贮存被动蒸发控制方案研究 李 鹏,孙培杰,盛敏健,包轶颖,励吉鸿(91)
- ADN 基液体推进剂射流撞网雾化特性的试验研究 陈 君,李国岫,张 涛,虞育松,丁佳伟,杨 蕊(98)
- 载人登陆火星任务核热推进系统方案研究 洪 刚,戚 峰,王建国,陈士强,郑孟伟(102)
- 可重复使用着陆缓冲器性能及其特点分析 于建强,董小闵,林 轻(107)

基础研究

- 三维网络结构石墨烯在真空日光照射下产生推力的试验研究
..... 赵 阔,李潭秋,徐 亭,谢广辉,孙常鹤,闫立群,卫 强,张光群,张同林,邢 飞(113)
- 微重力下离心式锥形两相洗衣机流场的数值模拟研究
..... 苏引引,吴 笛,段 俐,康 琦,吕佩师,许 升,劳春峰,宋华诚,张静静(117)

成果应用

- 一种用于空间应用效益评估的价值网络模型研究
..... 赵 滢,徐广玉,徐熙阳,张 璋,姜思宇,徐迺敏,蒲洪波(127)

信息研究

- 美国重启登月计划解析 王 霄,张 杰(136)

MANNED SPACEFLIGHT

Vol. 24 No. 1 (Sum 81) 2018

CONTENTS

ENGINEERING TECHNOLOGY

- Study on Optimal Control Strategy for Low Energy Moon Return Trajectory LIU Yue, FU Kailin, JING Wuxing, QIAN Yingjing(1)
- Dynamics Research of L1 Point Lunar Space Elevator Orbiting Around the Earth Wang Xiaohui, Mao Liheng(7)
- Gait Planning and Study of Climbing Robot with Three Branches for Space Station Truss ZHAO Jingdong, HAN Junguang, NI Fenglei, ZHAO Liangliang, LIU Hong(14)
- Design and Simulation of Inertia Matching for Testing System of Space Station Translocation HU Xueping, SHI Junwei, SHEN Xiaopeng, LIU Yan(20)
- Thermal Shock Test of Flexible Thermal Protection System for Inflatable Reentry and Descent Technology ... Cao Xu, Huang Mingxing, Ding Hong, Tang Mingzhang(26)
- An Optimization Method for Test Points of Manned Launch Vehicle Based on Fault-Test Dependency Model ZHOU Hu, HU Haifeng, LIU Qingzhu, SONG Zhengyu(34)
- Research on Object Detection Technology Inspired by Visual Perception Theory for EVA ZHANG Juli, MA Zhong, HE Zhanzhuang, ZHOU Geqiang, HE Shuangliang(41)
- Conceptual Design and Modeling of Joint System in Planetary Exploration Oriented Space Suit WANG Zhenwei, XU Renjie, LIU Shuangyin, XU Limei, XIE Xiaomei, FAN Shouwen(48)
- Method for Mitigating Background Light Influence on PSD By Modulating Light Source in Space Payloads ... YANG Luxin, DONG Wenbo(55)
- Design and Research of Topological 3-RSR Polyhedron Docking Mechanism LIU Yang, YAO Yan'an, HE Yanying(61)
- Tolerance Design and Analysis of Sample Transfer Process Based on Dimensional Chain Principle FU Lijia, LIU Zhou, WANG Weijun, ZHENG Yunqing(67)
- Experimental Analysis on Electric-Thermal-Mechanical Behaviors of Composites of Flexible Thin Film Solar Cells and ETFE foils YIN Yue, HU Jianhui, CHEN Wujun, LI Yipo(73)
- High Precision Manufacturing Technology for Space-based Membrane Antennas XIE Chao, YAN Biao, LIU Yu, ZHANG Liping, PENG Fujun(79)
- Sensitivity Analysis of Pyrotechnically Actuated Mechanism with Load Adaptive Characteristic SHUI Long, LEI Xiaoguang, KANG Changxi, LI Haolin, FU Zhaohui(84)
- Investigation on Passive Boil-off Control Scheme for Orbital Storage of Cryogenic Propellant in Orbital Transfer Spacecraft LI Peng, SUN Peijie, SHENG Minjian, BAO Yiyi, LI Jihong(91)
- Experimental Study on Spray Characteristics of Jet-flow Impinging on Barrier Mesh based on ADN Propellant CHEN Jun, LI Guoxiu, ZHANG Tao, YU Yusong, DING Jiawei, YANG Rui(98)
- Nuclear Thermal Propulsion System Design for Manned Mars Mission HONG Gang, QI Feng, WANG Jianming, CHEN Shiqiang, ZHENG Mengwei(102)
- Performance and Characteristic Analysis of Reusable Landing Shock Absorbers YU Jianqiang, DONG Xiaomin, LIN Qing(107)

BASIC RESEARCH

- Experimental Study of Driving Force Irradiated by Sunlight in Vacuum on Graphene 3-D Network Structure ZHAO Kuo, LI Tanqiu, XU Ting, XIE Guanghui, SUN Changhe, YAN Liqun, WEI Qiang, ZHANG Guangqun, ZHANG Tonglin, XING Fei(113)
- Numerical Simulation of Flow Field in Centrifugal Cone-shaped Two-phase Washing Machine under Microgravity SU Yinyin, WU Di, DUAN Li, KANG Qi, YU Peishi, XU Sheng, LAO Chunfeng, SONG Huacheng, ZHANG Jingjing(117)

APPLICATION OF RESULTS

- Study on Value Network Model for Evaluating Space Application Benefits ZHAO Yan, XU Guangyu, XU Xiyang, ZHANG Zhang, JIANG Siyu, XU Eryi, PU Hongbo(127)

INFORMATION RESEARCH

- Analysis of U. S. Resumption of Lunar Landing Program WANG Xiao, ZHANG Jie(136)