

目次

学术前沿

- 二元外并联RBCC进气道变几何方案研究 郭荣荣,金志光,李 猛,张堃元 (481)
径向入射激波聚焦实验和数值模拟研究 陈 鑫,谭 胜,荣 康,何立明,张 强,朱晓彬 (489)

气动热力学 总体

- 多喷管液体火箭动力系统尾焰冲击特性研究 乔 野,聂万胜,吴高杨,蔡红华,丰松江 (498)
间冷回热涡扇发动机热力学研究 张 琦,刘程远,滕金芳,冯锦璋 (504)
超声速进气道进发匹配安装性能快速计算方法 贾琳渊,陈玉春,解俊琪,蔡飞超 (510)
侧向膨胀对单边膨胀喷管性能的影响研究 牛彦泮,徐惊雷,莫建伟 (519)

叶轮机械

- 叶片加工误差对压气机叶栅气动性能的影响 高丽敏,蔡宇桐,曾瑞慧,田林川 (525)
尾迹对涡轮叶栅边界层转换的影响 李虹杨,郑 赞 (532)
轴流风扇“尖峰型”失速起始特征及其物理机制的实验及数值研究
..... 强冠杰,乔渭阳,Hashmi S F,王良锋,时培杰 (539)
涡轮叶片凹槽状叶顶非定常流动传热特性的数值研究 杜 昆,李 军 (551)
非对称叶轮对双面离心压气机流量分配特性的调节作用 杨 策,王本江,杨登峰,刘贻雄 (559)
亚声速扩压叶栅中弯叶片积叠规律的研究 丁 骏,陈绍文,王松涛,李燕飞,王仲奇 (570)
高负荷压气机静叶根部叶型气动性能实验研究 李晓东,钟兢军,高 宇 (581)

燃烧 传热

- 辐射换热对平板气膜冷却性能影响 刘友宏,任浩亮 (588)
等离子体助燃含硼富燃燃气燃烧实验研究 冯喜平,纪海龙,张 鹏,王 恒,侯昱舟 (597)
超声速燃烧室煤油多点喷注实验研究 王洪亮,卢传喜,谭 宇 (604)
限流方法解耦燃烧与喷射过程的合理性研究 王宇航,宋文艳,白菡尘,陈 亮 (611)
考虑自然对流的厚交换层液滴蒸发模型及其检验
..... 王 方,杨少锋,张学智,姜文彬,金 捷 (620)
弯曲壁面冲击加发散冷却结构的冷却效果实验研究 石小祥,胡好生,杨卫华,王梅娟 (630)
椭圆形超燃燃烧室内燃料喷射和掺混性能研究 周驯黄,陈荣钱,李怡庆,滕 健,尤延铖 (637)
流体障碍物对爆震燃烧起爆性能影响的实验研究
..... 王永佳,范 玮,李舒欣,张 扬,何建男,张启斌 (646)

结构 强度 振动

- 一种基于能量参数的非局部缺口疲劳寿命预测方法 袁善虎,蒋洪德,陈海燕,刘丙权 (653)
基于非线性油膜力的滑动轴承动力特性系数识别方法 王永亮,王鹏潇,刘子豪,钟兢军 (659)

控制 测量 故障诊断

一种应用于航空发动机全权限数字电子控制系统的解算器处理技术 蒋文亮,王少永,营笑,黄金泉 (666)

一种基于立体视觉技术的燃烧诊断方法 熊月飞,黄希桥,李墨祺,郑龙席 (673)

先进材料 推进剂 燃料

高含铝推进剂低压固体火箭发动机尾流场复燃数值模拟与实验研究 杨育文,邓康清,余小波,向进,王相宇,郭春亮,朱雯娟 (680)

HTPB推进剂拉伸力学行为的应变速率相关超弹本构模型 杨龙,谢侃,裴江峰,李世鹏,王宁飞 (687)

其它推进理论与应用

空间站等离子体接触器钳位模式实验研究 田立成,刘明正,杨威,郭宁,张天平,刘士永 (695)

氮气工质霍尔推力器束聚焦特性研究 夏国俊,宁中喜,欧阳磊,王亚楠,黎润,于达仁 (700)

隔板型式对旋转冲压压缩转子性能的影响 韩吉昂,孙云,钟兢军,管健 (710)

JOURNAL OF PROPULSION TECHNOLOGY

Vol. 38 No. 3 Sum No. 237

Mar. 2017 (Monthly)

CONTENTS

Academic Frontier

- Investigation of a 2D Variable Geometry Over/Under Type Inlet for RBCC GUO Rong-rong, JIN Zhi-guang, LI Meng, ZHANG Kun-yuan (481)
- Experimental and Computational Studies of Radial Incident Shock Wave Focusing CHEN Xin, TAN Sheng, RONG Kang, HE Li-ming, ZHANG Qiang, ZHU Xiao-bin (489)

Aerodynamics and System

- Research on Plume Impact Characteristics of Multi-Nozzle Rocket Propulsion System QIAO Ye, NIE Wan-sheng, WU Gao-yang, CAI Hong-hua, FENG Song-jiang (498)
- Parametric Thermal Analysis of Intercooled and Recuperated Turbofan Engine ZHANG Qi, LIU Cheng-yuan, TENG Jin-fang, FENG Jin-zhang (504)
- A Simplified Method to Simulate Supersonic Inlet Installed Performance in Terms of Engine and Inlet Matching JIA Lin-yuan, CHEN Yu-chun, XIE Jun-qi, CAI Fei-chao (510)
- Investigation of Effects of Lateral Expansion on Performance of Single Expansion Ramp Nozzle NIU Yan-feng, XU Jing-lei, MO Jian-wei (519)

Turbomachinery

- Effects of Blade Machining Error on Compressor Cascade Aerodynamic Performance GAO Li-min, CAI Yu-tong, ZENG Rui-hui, TIAN Lin-chuan (525)
- Effects of Wake on Boundary Layer Transition of Turbine Cascade LI Hong-yang, ZHENG Yun (532)
- Experiment and Numerical Investigation of Spike Rotating Stall Inception and Physical Mechanism with Single Stage Axial-Flow Fan QIANG Guan-jie, QIAO Wei-yang, Hashmi S F, WANG Liang-feng, SHI Pei-jie (539)
- Numerical Investigations on Unsteady Leakage Flow and Heat Transfer Characteristics of Turbine Blade with Squealer Tip DU Kun, LI Jun (551)
- Regulation Effects of Asymmetric Impeller on Flow Distribution Characteristics of Double-Sided Centrifugal Compressor YANG Ce, WANG Ben-jiang, YANG Deng-feng, LIU Yi-xiong (559)
- Study on Stacking Rules of Bowed Blade in Subsonic Compressor Cascade DING Jun, CHEN Shao-wen, WANG Song-tao, LI Yan-fei, WANG Zhong-qi (570)
- Experimental Investigation on Performance of a Profile at Cascade Hub in a High Load Compressor Stator LI Xiao-dong, ZHONG Jing-jun, GAO Yu (581)

Combustion and Heat Transfer

- Effects of Radiation Heat Transfer on Film Cooling Performance of Flat Plate LIU You-hong, REN Hao-liang (588)
- Experimental Study on Plasma Assisted Combustion of Fuel-Rich Gas Containing Boron Particles FENG Xi-ping, JI Hai-long, ZHANG Peng, WANG Heng, HOU Yu-zhou (597)
- Experimental Study of Kerosene Injection with Multi-Location in a Supersonic Combustor WANG Hong-liang, LU Chuan-xi, TAN Yu (604)
- Rationality Study of Flow Chock for Decoupling Combustion and Injection Process WANG Yu-hang, SONG Wen-yan, BAI Han-chen, CHEN Liang (611)
- Natural Convection Thick Exchange Layer Droplet Evaporation Model and Its Verification WANG Fang, YANG Shao-feng, ZHANG Xue-zhi, JIANG Wen-bin, JIN Jie (620)
- Experimental Investigation on Cooling Performance of Impingement/Effusion Cooling Structures on Concave Wall

.....	SHI Xiao-xiang, HU Hao-sheng, YANG Wei-hua, WANG Mei-juan	(630)
Injection and Mixing Performance in an Elliptical Scramjet Combustor		
.....	ZHOU Xun-huang, CHEN Rong-qian, LI Yi-qing, TENG Jian, YOU Yan-cheng	(637)
Experimental Study for Effects of Fluidic Obstacles on Detonation Initiation Performance		
.....	WANG Yong-jia, FAN Wei, LI Shu-xin, ZHANG Yang, HE Jian-nan, ZHANG Qi-bin	(646)

Structure, Strength and Vibration

Non-Local Method for Notched Fatigue Life Estimation Based on Energy Parameter		
.....	YUAN Shan-hu, JIANG Hong-de, CHEN Hai-yan, LIU Bing-quan	(653)
Identification Method of Rotordynamic Coefficients of Sliding Bearing Based on Nonlinear Oil Film Force		
.....	WANG Yong-liang, WANG Peng-xiao, LIU Zi-hao, ZHONG Jing-jun	(659)

Control, Measurement and Fault Diagnosis

A Resolver Technology for Full Authority Digital Electronic Control Systems of Aero-Engine		
.....	JIANG Wen-liang, WANG Shao-yong, YING Xiao, HUANG Jin-quan	(666)
A New Combustion Diagnostic Method Based on Stereo Vision Technology		
.....	XIONG Yue-fei, HUANG Xi-qiao, LI Mo-qi, ZHENG Long-xi	(673)

Advanced Materials, Propellant and Fuel

Numerical Simulation and Experimental Investigation on Plume Afterburning of Low-Pressure Solid Rocket Motor with Highly Aluminized Propellant		
.....	YANG Yu-wen, DENG Kang-qing, YU Xiao-bo, XIANG Jin, WANG Xiang-yu, GUO Chun-liang, ZHU Wen-juan	(680)
A Strain-Rate-Dependent Hyperelastic Constitutive Model for Tensile Mechanical Behaviour of HTPB Propellant		
.....	YANG Long, XIE Kan, PEI Jiang-feng, LI Shi-peng, WANG Ning-fei	(687)

Theoretical and Technological Research for Other Propulsion

Experimental Investigation of Clamping Mode of Plasma Contactor Unit for Space Station		
.....	TIAN Li-cheng, LIU Ming-zheng, YANG Wei, GUO Ning, ZHANG Tian-ping, LIU Shi-yong	(695)
Research on Beam Focusing Characteristics of Krypton Hall Thruster		
.....	XIA Guo-jun, NING Zhong-xi, OUYANG Lei, WANG Ya-nan, LI Run, YU Da-ren	(700)
Effects of Strake Configuration on Ram-Rotor Performance	HAN Ji-ang, SUN Yun, ZHONG Jing-jun, GUAN Jian	(710)