



JPT

推进技术

Journal of Propulsion Technology

10
2017 Vol.38 No.10
第38卷 第10期
ISSN 1001-4055 CN11-1813/V

纪念吴仲华先生百年诞辰专刊

Special Issue on Commemorating Centennial Birth Anniversary of WU Chung-Hua



《推进技术》
官方微信平台

中国航天科工集团三十一研究所

纪念吴仲华先生百年诞辰专刊

(执行主编:钟兢军)

目 次

综 述

- 吴仲华先生与叶轮机械三元流动理论 徐建中 (2161)
等离子体激励式压气机 李应红, 吴 云, 张海灯, 李 军 (2164)
航空压气机流动稳定性预测研究进展 孙晓峰, 何 晨, 刘小华, 马云飞, 孙大坤 (2172)
高负荷低压涡轮内部非定常流动机理及其控制策略研究进展
..... 朱俊强, 屈 骁, 张燕峰, 卢新根, 李 伟 (2186)
叶尖小翼控制压气机间隙流动的研究进展 钟兢军, 韩少冰 (2200)
轴流压气机叶顶泄漏流与突尖先兆失稳机理的研究进展
..... 杜 娟, 王偲臣, 李继超, 耿少娟, 聂超群 (2208)

研究论文

- 轴向间距对低反力度压气机性能影响的二维非定常数值研究 王仲奇, 王松涛, 张龙新 (2218)
轴流压气机串列叶栅参数优化研究 程 昊, 刘 波, 李 俊, 杨小东 (2224)
流线曲率法在多级跨声速轴流压气机特性预测中的应用 巫晓雄, 刘 波, 唐天全 (2235)
进口总压不均匀性对燃气透平端壁气热特性影响的研究
..... 王志多, 王 典, 张文豪, 王志豪, 丰镇平 (2246)
基于 DDES 的跨声速导叶中激波与边界层干涉机理研究 卞修涛, 林 敦, 苏欣荣, 袁 新 (2254)
变循环发动机稳态控制规律设计的新方法 陈玉春, 贾琳渊, 任 成, 周 超 (2262)
轴流压气机转子叶顶流场对微喷气的响应机制研究
..... 吴艳辉, 杨国伟, 陈智洋, 王 博, 安光耀 (2271)
环形涡轮动叶栅旋转效应数值研究 杨金广, 张 敏, 刘 艳, 莫宝奎 (2280)
带不同形状吸力面小翼的压气机叶栅变间隙实验研究 钟兢军, 桑则林, 韩少冰, 吴宛洋 (2290)
三角形涡发生器综合换热性能全局优化和知识挖掘 陶 志, 祝培源, 宋立明, 李 军, 丰镇平 (2298)
旋流畸变对压气机失速发展过程影响的试验研究 刘 华, 屠宝锋, 胡 骏, 谢金哲 (2306)
压气机叶栅角区分离中速度 PDF 双峰现象的 DES 数值模拟 张 策, 马 威, 滕金芳, 余文胜 (2314)
带冠涡轮叶片振动特性的子区间组合分析方法 刘继兴, 张大义, 王 存, 洪 杰 (2323)
楔形涡流发生器影响高负荷叶栅性能的机理研究
..... 李金鸽, 楚武利, 张皓光, 郎进花, 刘 凯 (2331)

- 叶根失速先兆触发跨声速压气机失速的机制研究 武文倩,胡加国,潘天宇,李秋实 (2340)
- 不同换算转速对高负荷风扇静子角区流动的影响 何 成,王如根,李仁康,宋昊林,何 畏,谢祥勇 (2348)
- 向心涡轮导向器设计改进及应用 徐志伟,郭昊雁,郑振江,蒋雪辉,王大磊,赵学成,郑 严 (2358)
- 高负荷两级轴流压气机耦合型机匣处理的设计研究 王 维,楚武利,张皓光 (2365)
- 叶根负荷对低速压气机失稳过程影响实验研究 李思敏,潘天宇,李志平,李秋实 (2374)
- 不同进口条件下向心流转静系盘腔流动特性研究 柳 光,杜 强,胡嘉麟,刘 军,徐庆宗 (2381)
- 高压比离心压气机串列叶轮内部流动机理研究 李紫良,卢新根,张燕峰,韩 戈,韩建涛,朱俊强 (2393)

期刊基本参数:CN11-1813/V * 1980 * b * A4 * 240* zh+en * P * ¥ 50.00 * 1000 * 27 * 2017-10

本期责任编辑:张荣莉

JOURNAL OF PROPULSION TECHNOLOGY

Vol. 38 No. 10 Sum No. 244

Oct. 2017 (Monthly)

Special Issue on Commemorating Centennial Birth Anniversary of WU Chung-Hua

(Guest Editor: ZHONG Jing-jun)

CONTENTS

Review

WU Chung-Hua and Three Dimensional Flow Theory of Turbomachinery	XU Jian-zhong (2161)
Plasma Actuated Compressor	LI Ying-hong, WU Yun, ZHANG Hai-deng, LI Jun (2164)
Research Progress in Prediction of Flow Instability of Aero-Compressor	SUN Xiao-feng, HE Chen, LIU Xiao-hua, MA Yun-fei, SUN Da-kun (2172)
Research Progress on Unsteady Flow Mechanism and Control Strategies of High-Lift Low Pressure Turbine	ZHU Jun-qiang, QU Xiao, ZHANG Yan-feng, LU Xin-gen, LI Wei (2186)
Research Progress of Compressor Tip Leakage Flow Control Using Blade Tip Winglet	ZHONG Jing-jun, HAN Shao-bing (2200)
Research Progress on Tip Leakage Flow and Spike-Inception Stall Mechanism in Axial Compressors	DU Juan, WANG Si-chen, LI Ji-chao, GENG Shao-juan, NIE Chao-qun (2208)

Research Paper

Performance Evaluation of a Low-Reaction Compressor with Different Axial Spacing by 2D Unsteady Simulation.....	WANG Zhong-qi, WANG Song-tao, ZHANG Long-xin (2218)
A Study of Parameter Optimization of Axial Compressor Tandem Cascade	CHENG Hao, LIU Bo, LI Jun, YANG Xiao-dong (2224)
Application of Streamline Curvature Method for Multistage Transonic Axial Compressor Performance Prediction	WU Xiao-xiong, LIU Bo, TANG Tian-quan (2235)
Effects of Inlet Total Pressure Non-Uniformities on Aero-Thermal Performance of Gas Turbine Endwalls	WANG Zhi-duo, WANG Dian, ZHANG Wen-hao, WANG Zhi-hao, FENG Zhen-ping (2246)
Study of Shock Wave-Boundary Layer Interaction Mechanism in a Transonic Vane Based on DDES	BIAN Xiu-tao, LIN Dun, SU Xin-rong, YUAN Xin (2254)
An Innovative Method for Design of Steady State Control Law for Variable Cycle Engines	CHEN Yu-chun, JIA Lin-yuan, REN Cheng, ZHOU Chao (2262)
Response Mechanism of Tip Flow Field in an Axial Compressor Rotor with Micro Injection	WU Yan-hui, YANG Guo-wei, CHEN Zhi-yang, WANG Bo, AN Guang-yao (2271)
Numerical Investigation on Rotating Effects for an Annular Turbine Rotor Cascade	YANG Jin-guang, ZHANG Min, LIU Yan, MO Bao-xi (2280)
Experiment on Variable Tip Clearance Characteristics of Compressor Cascade with Different Shapes of Suction-Side Winglets	ZHONG Jing-jun, SANG Ze-lin, HAN Shao-bing, WU Wang-yang (2290)
Thermal Performance Global Optimization and Knowledge Discovery of Delta-Shaped Vortex Generators	TAO Zhi, ZHU Pei-yuan, SONG Li-ming, LI Jun, FENG Zhen-ping (2298)

Experimental Investigation of Compressor Stall Development Induced by Inlet Swirl Distortion .....	..... LIU Hua, TU Bao-feng, HU Jun, XIE Jin-zhe (2306)
Detached-Eddy Simulation of Velocity PDF Bimodal Phenomenon of Corner Separation in Linear Compressor Cascades .....	..... ZHANG Ce, MA Wei, TENG Jin-fang, YU Wen-sheng (2314)
Sub-Interval Combination Method for Dynamical Characteristics of Shrouded Turbine Blades .....	..... LIU Ji-xing, ZHANG Da-yi, WANG Cun, HONG Jie (2323)
Mechanism Investigation of Effects of Plow Vortex Generator on High-Load Compressor Cascade .....	..... LI Jin-ge, CHU Wu-li, ZHANG Hao-guang, LANG Jin-hua, LIU Kai (2331)
Mechanism Study of Stall Triggered by Hub Region Inception in a Transonic Compressor .....	..... WU Wen-qian, HU Jia-guo, PAN Tian-yu, LI Qiu-shi (2340)
Effects on High-Load Fan's Flow Structure in Stator Corner under Different Corrected Rotation Speeds .....	..... HE Cheng, WANG Ru-gen, LI Ren-kang, SONG Hao-lin, HE Wei, XIE Xiang-yong (2348)
Improvement of Design Technology for a Radial Inflow Turbine Guide Vane and Its Application .....	..... XU Zhi-wei, GUO Hao-yan, ZHENG Zhen-jiang, JIANG Xue-hui, WANG Da-lei, ZHAO Xue-cheng, ZHENG Yan (2358)
Study of Design of a Coupled Casing Treatment for a Two-Stage High-Loaded Axial Flow Compressor .....	..... WANG Wei, CHU Wu-li, ZHANG Hao-guang (2365)
Experimental Study of Blade Hub Loading Effects on Instability Evolution in a Low-Speed Compressor .....	..... LI Si-min, PAN Tian-yu, LI Zhi-ping, LI Qiu-shi (2374)
Flow Characteristics in a Rotor-Stator Cavity with Various Radial Inflow .....	..... LIU Guang, DU Qiang, HU Jia-lin, LIU Jun, XU Qin-zong (2381)
Mechanism of Highly-Loaded Centrifugal Compressor Stage with Tandem Impeller .....	..... LI Zi-liang, LU Xin-gen, ZHANG Yan-feng, HAN Ge, HAN Jian-tao, ZHU Jun-qiang (2393)