

中国科技论文统计用刊
中文核心期刊

ISSN 1672-9897
CODEN SLLHAD

实验
流体
力学

实验流体力学

JOURNAL OF EXPERIMENTS IN FLUID MECHANICS

第36卷 第1期 Vol.36 No.1

大型风洞研制及其关键技术研究专刊
Special Issue on Large-scale Wind Tunnel
Development and the Key Technologies

2022.1

中国空气动力学会

二〇二二年

第三十六卷

第一期

万方数据

目 次

• 大型风洞研制及其关键技术研究专刊 •

大型风洞设备的数智化初步研究 廖达雄, 孙运强, 吴静怡, 彭磊 (1)

基于热声解耦方法的燃烧不稳定性预测 高宇鹏, 李俊杰, 刘巍, 李敬轩 (11)

大型低温风洞结构设计关键技术分析 赖欢, 祝长江, 陈万华, 廖达雄, 孙德文 (19)

连续式跨声速风洞轴流压缩机气动设计与低噪声设计 龙炳祥, 刘宗政, 陈振华, 陈吉明, 雷鹏飞 (27)

大型低温风洞模型进出系统关键技术分析 陈建兵, 刘伯林, 陈万华, 廖达雄, 赖欢 (37)

航空工业 1 m 量级高超声速风洞设计与建设进展 高亮杰, 辛亚楠, 袁野, 李强, 钱战森 (44)

大型季节性可移动式结冰风洞及其试验方法研究 朱东宇, 冯强, 韩晓涛, 杨希明, 崔晓春, 袁立 (52)

大型连续式跨声速风洞总体方案与关键技术研究 陈振华, 刘宗政, 陈吉明, 郭守春, 闫喜强, 裴海涛 (62)

风洞板翅式热交换器气体流动特性试验 赵波, 陈振华, 李为民, 陈吉明, 朱博, 温乾 (69)

2.0 m 高能脉冲风洞研制及其关键技术
..... 朱浩, 毕志献, 陈星, 宫建, 蒋博, 张冰冰, 江海南, 李辰, 吴健, 宋可卿, 谌君谋, 孙日明 (77)

大型连续式跨声速风洞干燥系统参数优化研究 裴海涛, 陈吉明, 陈振华, 陈钦, 王盼 (89)

大型高超声速风洞真空模式调试及流场性能校测 马利川, 石运军, 黄炳修, 孙勇堂, 晏硕 (96)

执行编辑 秦虹 英文审核 胡华雨

期刊基本参数: CN 11-5266/V * 1987 * b * A4 * 104 * zh * P * ¥20.00 * 1000 * 12 * 2022-02

CONTENTS

Special Issue on Large-scale Wind Tunnel Development and the Key Technologies

Digital intelligent technology research of large wind tunnel equipment	LIAO Daxiong, SUN Yunqiang, WU Jingyi, PENG Lei (1)
Prediction of the combustion instability based on the thermos-acoustic decoupling method	GAO Yupeng, LI Junjie, LIU Wei, LI Jingxuan (11)
Key technology for mechanical design in large-scale cryogenic wind tunnel	LAI Huan, ZHU Changjiang, CHEN Wanhua, LIAO Daxiong, SUN Dewen (19)
Aerodynamic and aero-acoustic design of continuous transonic wind tunnel compressor	LONG Bingxiang, LIU Zongzheng, CHEN Zhenhua, CHEN Jiming, LEI Pengfei (27)
Key technology for model access system in cryogenic wind tunnel	CHEN Jianbing, LIU Bolin, CHEN Wanhua, LIAO Daxiong, LAI Huan (37)
Design and construction progress of AVIC $\Phi 1.0$ m hypersonic wind tunnel	GAO Liangjie, XIN Yanan, YUAN Ye, LI Qiang, QIAN Zhansen (44)
Researches on a large natural moveable icing wind tunnel and test methods	ZHU Dongyu, FENG Qiang, Han Xiaotao, Yang Ximing, Cui Xiaochun, Yuan Li (52)
Characteristics and key technology analysis of large continuous transonic wind tunnel	CHEN Zhenhua, LIU Zongzheng, CHEN Jiming, GUO Shouchun, YAN Xiqiang, PEI Haitao (62)
Flow characteristics experiment of plate-fin heat exchanger in wind tunnel	ZHAO Bo, CHEN Zhenhua, LI Weimin, CHEN Jiming, ZHU Bo, WEN Qian (69)
The development and key technologies of 2.0 m high energy shock tunnel	ZHU Hao, BI Zhixian, CHEN Xing, GONG Jian, JIANG Bo, ZHANG Bingbing, JIANG Hainan, LI Chen, WU Jian, SONG Keqing, SHEN Junmou, SUN Riming (77)
Study on the parameter optimization of air-drying system in large continuous transonic wind tunnel	PEI Haitao, CHEN Jiming, CHEN Zhenhua, CHEN Qin, WANG Pan (89)
Vacuum mode debugging and flow field performance calibration of large-scale hypersonic wind tunnel	MA Lichuan, SHI Yunjun, HUANG Bingxiu, SUN Yongtang, YAN Shuo (96)