论文

最新目录 ｜ 下期目录 ｜ 过刊浏览 ｜ 高级检索

<< ◀◀ 前一篇 ｜ 后一篇 ▶▶ >>

涡扇发动机加力燃烧室扩压器流场的数值计算

陈义良[1], 孙慈[2]

1. 中国科技大学; 2. 沈阳航空发动机研究所

NUMERICAL CALCULATION OF FLOW FIELD IN AFTERBURNER DIFFUSER OF TURBOFAN ENGINE

Chen Yiliang[1], Sun Ci[2]

1. University of Science and Technology of China; 2. Shengyang Aeroengine institute

摘要	参考文献	相关文章

Download: PDF (458KB)   HTML 0KB   Export: BibTeX or EndNote (RIS)   Supporting Info

摘要

本文用数值计算的方法得到了某型涡扇发动机加力燃烧室扩压器内的流场,与台架状态测得的实验数据基本吻合。研究了不同进口气流参数分布对扩压器流场的影响,计算了台架不同转速状态,不同飞行工况下扩压器内的流场。

关键词：

Abstract：

The flow field in afterburner diffuser of a turbofan engine is calculated by the SIMPLE method. The results are compared well with the measured data. It is illustrated that the characteristics of the flow field in the diffuser can be investigated by means of computational methods.The computation shows that the profiles of axial inlet velocity component and the values of inlet turbulent energy have a considerable effect on the flow field in the diffuser. Therefore, in model or component tests it is necessary to guarantee the identity of the axial velocity profiles and the values of turbulent energy at the inlet of the test unit with those in the corresponding position of the actual engine. The variation of flow field with velocities of the engine on the ground and in flight is researched by the present method. It is shown that the bypass ratio is the primary cause of the variation of the flow field.

Keywords：

Service

▸ 把本文推荐给朋友
▸ 加入我的书架
▸ 加入引用管理器
▸ Email Alert
▸ RSS

作者相关文章

▸ 陈义良
▸ 孙慈

引用本文：