專題文獻索引

噴气發动机叶片机

中國科学技術情报研究所

1958年12月

說　明

根据某些使用单位的需要，我們将美国（1947～1954年）有关这方面的資料，收集了一部份，供給有关单位使用。由于时較短的关系，可能有錯誤的地方，希使用单位提出宝貴意見，以使改进工作。

美国对发展燃气渦輪机的貢献
American Contribution to Gas turbine Development

（动力研究所）

二元級渦輪轉子叶片出口在临界与超临界压力比之下，研究气流与其偏斜角
Study of flow condition and deflection Angles at exit of two-Dimensional cascade of turbine Rotor Blades at critrical and superitical pressure Ratio
NACA RM E9K25 Mar. 1950

向心冷却渦輪的离心式压气机之研究
Investigation of Centrifugal Compressor operated as a Centripetal Refrigeration turbine
NACA RM E50120 Dec. 1950

可調节靜子叶片的渦輪及其对噴气发动机性能影响的分析报告
Analytical Investigation of turbines with Adjustable Stator Blades and effect of these turbine on jet-engine performance
NACA RM E50E05 July 1950

研究有导向叶片和轉子叶片的軸流式压气机叶片級气流分佈
Investigation of Blade-Row Flow Distribution in Axial-flow compressor Stage Consisting of Guide Vanes and Rotor-Blade Row
NACA RM E50G12 Nov. 1950

带有一系列叶片角度的軸流式压气机叶輪轉子之研究
Investigation of an Impeller Axial flow Compressor Rotor over a Range of Blade Angles
NACA RM L50F27Q Aug. 1950

叶片表面抛光对单級軸流式压气机性能的影响
Effect of Blade-Surface finish on performance of a Single-Stage Axial flow Compressor
NACA RM E51C09 Apr. 1951

关于軸向渦輪的內流損失現有資料的审定
Survey of Avilable Information on Internal flow losses through Axial turbomachine
NACA RM E50J13 Jan. 1951

雷諾数对产生环形渦流风洞中級翼面性能
Performance of a Cascade in an annular vorten-generating tunnel over range of Reyold Number
NACA RM E51G30 Sept. 1951

研究雷諾数对双面进气离心式压气机之影响
Investigation of eiects of Reynolds Number on large duble-entry Centrifugal Compressor
NACA RM E52H19

用喷烟研究在低速渦輪的噴管上第二道气流
Smoke Study of Nozzle Secondary flows in a Low-Speed turbine
NACA TN 3260 Nov. 1954

采用統計法来研究燃气輪叶片之損坏
Applications of statistical methods to the study of gas turbine Blade failures
NACA TN 1603 1948

单一翼面与級翼面上的速度分佈之研究
Isolated and Cascade Airfoils with prescribed velocity distribution
NACA TN 1308

級差度不变的級翼型在可压縮流体中的理論研究
A theory of unstaggered Airfoil cascades in compressible flow
NACA TN 888 1947

用理論与試驗来比較在級翼型中升力与压力之分佈
Comparisons of theoratical and Experimental Lift and pressure Disturbution on Airfoils in Cascades
NACA TN 1376 July 1947

在錐体混合式压气机中之可压縮二元流
Two Dimensional Compressible flow in Conical Mixed-flow Compressors
NACA 1744 Nov. 1948

快速近似法求定离心式压气机叶輪叶片的速度分佈
A Rapid Approximate Method for Determining Velocity Distribution on Impeller Blade of Centrifugal Compressor
NACA 2421 July 1951

分析可压縮流体流过任一渦輪叶片一般旋轉面的方法
Method of Analysis for Compressible flow past Arbitrary Turbomachine Blades on general Surface of Revolution
NACA TN 2407 July 1951

軸向旋轉通路的流动平面
Flow Surface in Rotating Axial flow passages
NACA TN 2834 Nov. 1952

有粘性与无粘性的稳定可压縮二元流流过等距叶片系
Two-Dimensional Steady Nonviscous and viscoues compressible flow through a system of equidistant Blades
NACA TN 2718 June 1952

在具有可变吸力多孔壁叶片的压气机，在亚音速与跨音速二元流的級翼面上的可压縮性修正的应用及馬赫頓对气流的影响
Effect of mach number on the flow and Application of Compressibility Corrections in a two-dimensional Subsonic-Transonic Compressor Cascade having varied porous-wall suction at the blade tips
NACA TN 2649 March 1952

二元流流过旋轉渦輪一般表面
Two-Dimensional flow on general Surfaces of Revolution in turbomachines
NACA TN 2654 Mar. 1952

径向无叶片扩散器与混合离心式压气机的可压縮一元流体包括摩擦，传热与面积变化之影响
One-Dimensional Compressible flow in Vandess Diffusers of Radial and Mixed-flow centrifugal compressors, Including effects of friction, Heat Transfer and Area Change
NACA TN 2610

分析在离心式压气机径向进口的轉动通路上气流，其尖端速度每秒 700 英尺
An Analysis of the flow in the Rotating passage of large Radial-Inlet Centrifugal Compressor at a tip speed of 700 ft per second
NACA TN 2584 Dec. 1951

在旋轉渦輪的任一流綫上超音速气流，求解其順流与反流問題方法
A Method of Soluting the direct and Inverse problem of Supersonic flow along Arbitrary stream filaments of Revolution in turbomachines
NACA TN 2492 Sept. 1951

按离心式叶輪給定叶片形状用快速近似法設計輪毂套筒側形
A Rapid Aproximate Mothod for the Design of Hub Shroud profiles of Centrifugal Impellers of given Blade Shape
NACA TN 3399 March 1955

单风扇研究
Investigation of Single fans
NACA TN 1062 Apr. 1954

用理論与試驗比較在低亚音速的級翼型升力与压力之分佈
Further Comparisons of theoretical and Experimental lift and pressure distribution on Airfoils in Cascade at low-subsonic speed
NACA TN 2391

用于三元流的軸流式轉子与靜子的設計研究
Investigation of Axial-flow Fan and Compressor rotors Designed for three-Dimensional flow
NACA TN 1652 July 1948

混流式叶輪亚音速流体的分析
Analysis of flow in a Subsonic Mixed-flow Impeller
NACA TN 2749 Aug. 1952

燃气渦輪在設計研究中图表的使用与制作
Construction and use of charts in design studies of Gas turbines
NACA TN 2403 July 1951

閉流式渦輪的一元流分析
One-Dimensional Analysis of choked-flow Turbines
NACA TN 2810 Oct. 1952

在一48英吋离心式压气机內流通道构造改变时对其性能之影响
（Ⅰ.）改变叶片形状（Ⅱ.）改变輪毂形状
Effect of changing passage configuration on Internal-flow characteristics of a 48 inch. Centrifugal Compressor (I). Change in Blades Shape (II). Change in hup Shape
NACA TN 2706 May 1952 (I)
TN 2835 Nov. 1952 (II)

可压縮流体的标图法及其在級翼面流动上的应用
A compressible-flow ploting device and it's Application to cascade flows
NACA TN 2681 Apr. 1952

誘导式多級軸流式压气机的空气动力学設計技术
A technique Appliable to the Aerodynamic Design of Inducer-type,, Multistage Axial flow Compressors
NACA TN 2598 Mar. 1952

燃气渦輪发动机軸流式压气机进口用噴水的理論性能
Theoretical performance of an Axial-flow compressor in a gas-turbine engine operating with Inlet water Injection
NACA TN 2673 March 1952

根据测量48英吋径向进气离心式叶輪，研究其三元內流分析
Study of three-Dimensional Internal flow distribution based on measurements in a 48-Inch Radial Inlet Centrifugal Impeller
NACA TN 1301 Feb. 1954

燃气輪空心叶片的温度与应力
Temperatures and Stresses on Hollow Blades for Gas Turbines
NACA TN 1183 Sept. 1947

燃气輪用硅酸盐陶瓷轉子叶片的初步研究
Preliminary Investigation of a gas turbine with Silimanite Ceramic Rotor Blade
NACA 1309 July 1947

靜子叶片环形級翼面旋流中的冲击研究
Shocks in Helical flows through Annular cascades of stator Blades
NACA TN 3329 Dec. 1954

测定与試驗多級軸流式压气机的标准程序
Standard proceedures for Rating and testing Multistage Axial-flow compressor
NACA TN 1138 Sept. 1946

离心泵流体研究
Investigation of flow in a centrifugal pump
NACA TN 1089 July 1946

在有漏斗形进气通道的径向式叶輪，其軸向平面曲綫与通道面积的流量变化影响
Effects of Axial-plane Currature and passage-Area Variation of flow capacity of Radial-dischange Impeller with Conventional Inlet buckets
NACA TN 1068

无叶片扩散器設計方法与某些未确定参数的試驗研究
Method of designing Vaneless diffuser and Experimental Investigation of certain undetermined parameters
NACA TN 1426 Sept. 1947

軸流式压气机轉子性能在昇力系数为1.20的进气段設計
Performance of an Axial flow Compressor Rotor designed for a pitch-section lift coefficient of 1.20
NACA TN 1388 July 1947

52.5° 級差度軸流式靜子与轉子叶片設計数据幷由試驗轉子級翼面得到的数据証实
Axial-flow fan and Compressor blade design data at 52.5° stagger and further verification of cascades data by Rotor test
NACA TN 1271 Apr. 1947

在无定数叶片上二元流理論的基础設計径向进口叶輪性能
Performance of a Radial-Inlet Impeller Designed on the bassis of two-dimensional flow theory for an infinite number of blades
NACA TN 1214 March 1947

在叶輪上增加角速度与增加半径之間的分工情况变化对性能的影响
Effect on performance of changing the Division of work Between Increase of Angular velocity and Increase of Radius of Rotation in an Impeller
NACA TN 1216 Feb. 1947

軸流式轉动叶栅空气动力学特性的报告
An Investigation of the Aerodynamic Characteristics of a Rotating Axial-flow Blade Grid
NACA TN 1128 1947

单級軸流式压气机测量轉子叶片压力分佈
Pressure-distribution Measurements on the Rotating Blades of a Single-stage Axial flow compressor
NACA TN 1189 1949

在多級軸流式压气机进口导向叶片之研究
Investigation of Inlet Guide Vanes for a Multistage Axial flow compressor
NACA TN 1954

用試驗方法求定通过軸流式压气机沿径向分佈的压力
Method of experimentally determining radial distribution of velocity through axial-flow compressor
NACA TN 2059 Apr. 1950

进口輪轂——叶尖半径比与設計空气流量对軸流式压气机設計性能的理論影响
Theoretical effect of Inlet hub-tip-radius ratio and design specific mass flow on design performence of Axial-flow compressors
NACA TN 2068 Apr. 1950

軸向环流式等厚度园派进口导向叶片的旋轉角設計法則
Turning-Angle design Rules for constant-Thickness Circular-Arc Inlet Guide Vanes in Axial Annular flow
NACA TN 2179 Sept. 1950

改进設計与非設計的軸流式渦輪性能中叶片附面层的控制可能应用
Possible application of Blade Boundary-layer Control to Improvement of design and off design performance of Axial-flow Turbomachines
J. T. Sinnette NACA TN 2371 May 1951

旋轉輪盘附面层流振动的研究报告
Exploratory Investigation of laminar-Boundarylayer osciallations cn a Rotating disk
NACA TN 1227 May 1947

軸流式压气机的仪表研究
Instrumentation for Axial flow Compressor Research
C. A. Mayer
（动力研究所）

軸流式压气机理論与試驗报告
Theorefical and Experimental Investigations of Axial flow Compressors, part 1 and 2.
（动力研究所）

軸流式压气机与渦輪的空气动力学設計
On the Aerodynamic design of Axial flow Compressors and turbines
A. Vazsonyi
（动力研究所）

扭轉叶片級翼面的二級气流
Secondary flows in Cascades of twisted Blades
F. F. Enrich
（动力研究所）

在环形級翼的二級气流及其对进气导向叶片气流的影响
Secondary flows in Annular Cascades and effects on flow in Inlet Guide vanes
S. Lieblein

（动力研究所）

軸流式压气机报告
Investigation of Axial flow compressor
J. T. Bowen

（动力研究所）

流过渦輪的层流理論
A laminar theory of the flow through a turbomachine
F. G. Gravalos Jan. 1950

（动力研究所）

多級軸流式渦論一般新理論
New General theory of Multistage Axial flow Turbomachine
W. Tranpel

（动力研究所）

軸流式压气机級的叶片調整
Blades adjustment in Axial-flow Compressor Stages
Allan W. McCoy

（动力研究所）

如单級特性对軸流式压气机性能的影响
The Performance of Axial-flow Compressor as effected by Single-stage characteristics
S. M. Bogdonoff

（动力研究所）

压气机級翼面的高速性能
A note on the High Speed Performance of Compressor Cascades
A. D. S. Carter

（动力研究所）

航空燃气輪部件的相互作用
Interactions of components of gas turbines for aircraft
A. W. Goldstein

（动力研究所）

軸流式压气机失速传播的观察
Ovservations of propagating stall in axial flow compressor
NA 4 Apr. 1953

渦輪叶片尖端間隙流动的分析
Analysis of tip-dearance flow in Turbo-machines
PIB-TRI July 1954

在級翼面的叶片尖端間隙流动的試驗报告
Experimental Investigation of tip clearance flow in Cascades
No. 2 Sept, 1955

軸流式，径向式与混合式的音速与超音速渦輪中三元流的一般理論
A General theory of three-dimensional flow in Subsonic and Supersonic turbo machines of Axial, Radial and Mixed-flow type
AsMe Trans. Nov. 1951

在噴气发动机軸流式压气机的空气动力学問題
Aerodynamic Problems in Axial Compressors for Aircraft Jet Engine
Preprint No. 216

根据自由渦流的燃气輪机設計
Gas turbine design based on free Vortex flow
A. R. C. No. 2541 1951

在渦輪內任意輪轂与机匣形带有亚音速与超音速的流体流动一般穿流理論
General through-flow theory of fluid flow with subsonic or supersonic velocity in Turbo-machine of arbitrory hub and casing shapes
NACA TN 2302

四級反作用式渦輪綜合性能特性
Overall performance characteristics of a four-stage Reaction Turbine
A. R. C. No. 2416 1950

在对称流通中带有旋流与渦流的超音速气流
Supersonic flow with whirl and Vorticity in Axisymmetric channeles
NACA TN 2768 Aug. 1952

在旋轉叶輪中的軸向对称超音速气流
Axisymmetric Supersonic flow in Rotating Impellers
NACA TN 2388 June 1951

在試驗台与飞行中測量压气机与渦輪叶片应力方法
Methods of measureing stresses in Compressor and turbine blades on test beds and in flight
Abst Engrs Digest 1958 Jan. V19 No. 1 p.29 from paper meeting Instn Mech Engrs

单級軸向压气机在旋轉中失速的試驗报告
Experimental investigation of the rotating stall in a single-stage axial Compressor
J of the Aeronautical Science V25 No. 1 Jan. 1958 p. 1-10

渦輪发动机在含盐份的大气中运轉
The turbine Engine in Salt Atmosphere operation
H. F. Sharp
Aeronautical Engineering Review V17 No. 1, Jan. 1958, p. 47-49

用簡单方法估算雷諾数对燃气渦輪发动机在高空中运轉的影响
A simple method of estimating the Reynolds Number effects on Aircraft Gas turbines operation at high Altitudes
1957 Annual Meeting paper 57-A-157 (Abst Mech Eng. Jan. 1958 V. 80 No. 1, p. 77

渦輪发动机在空气动力学方面发展
Aerodynamic development of a turbine Engine
G. H. Pedersen
1957 AsMe Annual Meeting paper 57-A-127 cahst Mech. Eng. Jan. 1958 V 80 No. 1, p. 77

轉子尖端喷射压力
Rotor tip pressure jets
The Engineer 3/V 1957, p. 686-687.

空气驅动加力燃燒室燃油泵
Air driven Afterburner fuel pump
Aero Digeat 1955, 2, p. 58

直昇机的火箭动力
Rocket power for Helicopter
Aero Digest 1955, 4

在环形扩散器与叶輪联合装置中控制旋轉气流的研究
Investigatoin of an Annular diffuser-fan Combination Handling Rotating flow
NACA RM L9B28 Apr. 1949

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