

CONTENTS

P.V. Petrov, V.A. Tselischev

Numerical study of SAR CCD for steady-state and transient modes..... 7

A.A. Zuev, V.P. Nazarov, A.A. Arngold, I.M. Petrov

Disk friction in determining the balance of power turbopump rocket engine..... 17

I.E. Merkulov, A.I. Endogur

Development of a technique of design of welded compartments
of supersonic aircraft taking into account their structural and technological schemes 32

V.S. Koshman

To the question of estimation of the temperature state of refractory metal elements
in aircraft structures 45

Yu.A. Nozhnitskiy, B.A. Baluev, Yu.A. Fedina, D.V. Shadrin

Modernization of experimental base for investigation of gas turbine engine integrity..... 55

V.I. Milesin, I.K. Orekhov, S.K. Shchipin

3D-inverse design of transonic fan rotors efficient for a wide range of RPM 70

V.I. Milesin, A.M. Petrovitchev, S.I. Baeva, V.V. Zhdanov

Numerical and experimental study of the effect of circumferential grooves
on HPC last stage performance 89

B.V. Kavalero, A.I. Suslov

Automation of tests of control systems of converted gas turbine installations based
on the application of the mathematical model of electrical system 105

T.E. Melnikova, Yu.A. Kazarinova

Perfecting of the design of the fastening element of the technical equipment on board
of the unmanned aerial vehicle..... 118

K.G. Nepein, I.A. Selivanov

Improving the fatigue resistance characteristics of compressor blades made
of titanium alloy 129

A.A. Shilova, I.S. Kuznetsov, N.L. Bachev, R.V. Bulbovich

Using the pre-mixing chamber in the utilization power plant..... 137

N.N. Zaytsev, D.N. Zaytsev, D.A. Mineev

Simulation of single-disc rotor dynamics with a ball autobalancer on transient
and steady-state modes of rotation 148

*A.A. Inozemtsev, N.G. Lamanova, A.N. Sazhenkov,
I.G. Lisovin, I.N. Gribkov, A.S. Pleshivikh*

Optimal observer synthesis for failures in meas-urement channel
of bypass turbofan engines ACS 162