

CONTENTS

Mechanical Engineering

Jarosław PLICHTA, Krzysztof NADOLNY, Sylwester WOJCIESZAK, Comparative analysis of turning and traverse grinding of bearing steel parts in hardened state	89
Marcin ROMANOWSKI, Krzysztof NADOLNY, Characteristics of the systems of computer modelling and simulation of production processes	95
Marcin ROMANOWSKI, Krzysztof NADOLNY, Technological foresight: characterisation of research methods used in prospective analysis	101
Kacper SZWAŁEK, Krzysztof NADOLNY, Characteristics of tools used in the friction drilling method	109
E.V. YURCHENKO, I.D. RUSHIKA, V.I. AGAFII, A.I. DIKUSAR, Al-Sn nanostructured coatings on aluminum surfaces using electrospark alloying and their wear behavior	115

Energy Engineering

Mirosław GRABOWSKI, Ewelina BŁACHNIO, Experimental studies on the effect of the enhancement of the heating surface on the heat transfer coefficient for boiling in closed volume	121
Robert MATYSKO, Ground as a source of heat for heat pumps	131
Robert MATYSKO, Transient model of heat pump cycle	139
Kamrul Hasan RAHI, Golam Md. MORTUZA, Abdullah AL-FARUK, Development of a source code to analyze the effect of Reynolds number on a square lid driven cavit	147
Krzysztof J. WOŁOSZ, Jacek WERNIK, On the energy efficiency in the heatproof nozzle of the pneumatic pulsator system during supersonic airflow	155

Journal of **MECHANICAL and ENERGY ENGINEERING**

*Editor-in-Chief***Waldemar Kuczyński***Editors***Krzysztof Rokosz | Krzysztof Nadolny**