

## Table of contents

<b>Vitaliy Baranov:</b> The methanol conversion automobile reactor laboratory tests results	<b>3</b>
<b>Oleksiy Chesnokov:</b> Researches of production of the spatially reinforced carbon-carbon composition	<b>8</b>
<b>Inessa Deyneka, Anatoliy Mychko, Galina Ripka:</b> Identification of vegetable origin fibers for children's clothes	<b>15</b>
<b>Dmitry Dmitrienko, Sergey Lenich:</b> Modeling the motion of particles in the pneumatic transport mills	<b>19</b>
<b>Oleg Druz, Svetlana Gitnaya:</b> Accounting of arc welding process specificity in innovative technologies	<b>24</b>
<b>Alexander Golubenko, Alexander Kostyukevich, Ilya Tsyganovskiy:</b> An influence of adhesion model on the results of locomotives dynamics simulation	<b>30</b>
<b>Sergey Grebyonkin, Victor Ryabitchev, Vladimir Pavlysh, Artem Tishchenko, Yuriy Tishchenko:</b> Conceptual bases of the organizational and technological providing ecologically of safe mining production	<b>35</b>
<b>Vladimir Gromenko, Sergey Krivonosov, Alex Snizhko:</b> X-raystructural research of products of cavitation erosion of metals	<b>41</b>
<b>Elizabeth Gusentsova</b> Influence of aerodynamic characteristics on the heat exchanging in the cooling system	<b>46</b>
<b>Yuri Gutko, Yuri Svinoroev, Vladimir Kostrub:</b> Theoretical aspects and practical recommendations for use of methods of binding materials modification and mechanical treatment to solve technological and ecological production problems	<b>51</b>
<b>Andrey Kireev, Irina Kirichenko:</b> Perfection of methods of determination of type of defect at the ultrasonic control of elements of rolling stock of railways	<b>58</b>
<b>Irina Kirichenko, Oleksandr Strilets, Mykola Koshovy:</b> Piezo actuators injector of Common Rail fuel injection system	<b>62</b>
<b>Yuriy Kozub, Galina Kozub:</b> Graphic presentation of results of calculations by calculable complex «Mirela +»	<b>68</b>
<b>Alexander Krajniuk, Alexander Danileychenko:</b> The cascade pressure exchange reactive rotation disk engine creation reasons	<b>73</b>
<b>Alexandr Kravchenko, Vladimir Verbitskii, Valeriy Khrebet, Nataliya Velmagina:</b> Steerability and stability of automobile non-linear model	<b>77</b>
<b>Valerie Lahno:</b> Information security company in a DOS (DDOS) attack	<b>84</b>

<b>Volodymyr Lyfar:</b> Database of hazardous substances properties	<b>90</b>
<b>Valeriy Maletkin, Oleg Druz, Lydmila Maletkina:</b> Investigation of the influence of catastrophes on human vital activity	<b>94</b>
<b>Igor Malkov, Gennadiy Sirovoy, Igor Nepran, Sergey Kashkarov:</b> The calculation method of small-sized composite enclosures in CAD/CAE systems	<b>100</b>
<b>Dmitriy Marchenko:</b> Grounding of the frequency range choice in the system of monitoring of the operation reliability of the technical systems	<b>105</b>
<b>Olga Mokshina, Nikolay Riabchykov:</b> Prediction of quality of sewing department under unsteady operating mode change	<b>109</b>
<b>Maryna Morneva, Vladimir Gavrysh, Nataliya Kuzmenko:</b> Calculation of calibration force of gear teeth by expanding with cone-shaped punch	<b>114</b>
<b>Maxim Pronin:</b> The mathematical model of the traction force coefficient of the conveyor on an air cushion with sloping round channels	<b>117</b>
<b>Olga Rossoshanska, Natalia Lyashenko:</b> Method and models of block-rank analysis of the value factors as indicators of economic security and efficiency of the management of the intangible component of the value of the science-based project-oriented enterprises	<b>122</b>
<b>Ksieniya Sieriebriak:</b> Information technologies in Ukraine: problems and obstacles	<b>128</b>
<b>Tatiana Shinkareva, Anatoly Gedrovich:</b> The development of means for dust cleaning as an important direction for air improvement in the foundry	<b>136</b>
<b>Maxim Slobodyanyuk, Michail Gribinichenko:</b> Theoretical basis of automobile freight system with changeable trailers	<b>140</b>
<b>Maxim Slobodyanyuk, Elena Lapaeva:</b> Development of transit and socio - economical potential of eastern Ukraine on the example of Lugansk region	<b>143</b>
<b>Valery Starchenko, Vyacheslav Burjak:</b> Thermoelastic contact problem for the elastic half-space	<b>148</b>
<b>Dmitry Syomin, Yaroslav Maltsev, Marina Maltseva:</b> Research of influence of brake device on dynamic properties of electro-pneumatic valve	<b>151</b>
<b>Igor Tararychkin, Gregory Nechayev, Maxim Slobodyanyuk:</b> Structural synthesis of pipeline transportation of industrial enterprises	<b>155</b>
<b>Uriy Tihonov, Vitaliy Semenov, Genadiy Mogilnuy:</b> Computer-aided design of electronic courses	<b>159</b>
<b>Grigory Yakovlev, Grigory Pervushin, Galina Fedorova, Irina Maeva, Igor Pudov, Alexander Korzhenko, Javyga Keriene:</b> Modification of cement matrixes with dispersion of multilayer carbon nanotubes	<b>163</b>
<b>Natalya Zhizhkina:</b> The researches of influence of thermal treatment to structure and properties of core of rolls with layer of high alloyed cast iron	<b>169</b>