

BULLETIN

SUKHOI STATE TECHNICAL UNIVERSITY OF GOMEL

SCIENTIFIC-PRACTICAL JOURNAL HAS BEEN PUBLISHED SINCE MARCH 2000 4 (95)' 2023

Editor-in-Chief

A. V. PUTSIATA,

Doctor of Engineering, Professor, Rector of Educational Institution "Sukhoi State Technical University of Gomel"

Deputy editor-in-chief

A. A. BOIKA,

Doctor of Engineering, Professor (Gomel, Belarus)

Responsible Secretary

A. S. RYABTSEVA

Editorial Address:

Pr. Octiabria, 48, 246746, Gomel, Republic of Belarus Tel./Fax +375 232 214 373 E-mail: nich@gstu.by

Editorial Board

Al-Areki Nivazi A. S., Doctor, Professor (Taiz, Yemen), O. D. Asenchik, Ph.D. in Physics and Mathematics, Associate Professor (Gomel, Belarus), M. N. Vereshchagin, Doctor of Engineering, Professor (Gomel, Belarus), V. A. Golub, Doctor of Economics, Professor (Gomel, Belarus), N. V. Gruntovich, Doctor of Engineering, Professor (Gomel, Belarus), A. G. Gurko, Doctor of Engineering, Professor (Kharkov, Ukraine), N. P. Dragun, Ph.D. in Economics, Associate Professor (Minsk, Belarus), V. V. Kirienko, Doctor of Social Science, Professor (Gomel, Belarus), V. A. Kovtun, Doctor of Engineering, Professor (Gomel, Belarus), V. P. Kudin, Doctor of Engineering, Professor (Gomel, Belarus), M. I. Mikhailov, Doctor of Engineering, Professor (Gomel, Belarus), V. V. Mulvak, Doctor of Engineering (Moscow, Russia), N. K. Myshkin, Academician of the National Academy of Sciences of Belarus, Doctor of Engineering, Professor (Gomel, Belrus), A. B. Nevzorova, Doctor of Engineering, Professor (Gomel, Belarus), A. V. Ovsyannik, Doctor of Engineering, Professor (Gomel, Belarus), E. N. Poddenezhny, Doctor of Chemistry, Associate Professor (Gomel, Belarus), V. D. Poroshin, Doctor of Geology and Mineralogy, Professor (Gomel, Belarus), A. S. Semenov, Doctor of Physics and Mathematics, Associate Professor (Mirny, Russia), S. A. Sultanova, Doctor of Engineering, Professor (Tashkent, Uzbekistan), A. V. Sychou, Ph.D. in Engineering, Associate Professor (Gomel, Belarus), N. V. Sycheva, Ph.D. in Economics, Associate Professor (Gomel, Belarus), S. I. Timoshin, Doctor of Physics and Mathematics, Professor (Gomel, Belarus), **A. S. Titlov**, Doctor of Engineering, Professor (Odessa, Ukraine), P. A. Hilo, Doctor of Physics and Mathematics, Professor (Gomel, Belarus), N. N. Khimich, Doctor of Engineering, Professor (St. Petersburg, Russia), O. N. Shablovsky, Doctor of Physics and Mathematics, Professor (Gomel, Belarus), V. M. Shapovalov, Doctor of Engineering, Professor (Gomel, Belarus), A. P. Shevlyukov, Doctor of Economics, Professor (Gomel, Belarus)

CONTENT

Stasenko D. l., Hazeev E. V. Increasing Energy Efficiency of Wheel Loader Hydraulic System Cat 962H	14
Materials Science	
Poddenezhny E. N., Drobyshevskaya N. E., Boika A. A., Shapovalov V. M.	
The Usage of Flax fiber for Forming Biodegradable Composites with Polylactide Matrix	22
Nikityuk Yu. V., Serdyukov A. N., Ma J., Wang L., Aushev I. Yu. Optimisation	
of Parameters for Laser Cleaving of Silicate Glasses Using U-Shaped Beams	30
Piliptsov D. G., Fedosenko N. N., Sahovskiy K. A., Chepkasov S. U. Discharge	
Voltage Effect on Structure and Mechanical Properties of Carbon Coatings,	
Precipitated from Separated Streams of Carbon Plasma	40
Yefimchyk K. V., Kudina E. F. Shungite Influence on Mechanical Properties	
of Low-Filled Composite Material Based on Polypropylene	52
Urbanovich V. S., Leonchik S. V., Zhivulko V. D., Shloma E. N., Lavysh E. O.,	
Niss V. S., Grigoriev S. V., Poddenezhny E. N. Obtaining Ceramics Based	
on Oxides of Erbium and Ytterbium by High Pressure Sintering	61
Kuchkov A. A., Savchenko S. A., Astapenko I. V., Slepnev G. A. Technology	
Development and Production Mastering of Reinforcement № 7 With Strength Class	
A400C 4f Form in Coils According the Requirements of GOST 34028–2016	70
Power Engineering	
Doroschenko I. V., Poguliaev M. N. Assessment of Influence of Asynchronous	
Valve Cascade Controlled Converter Type on Electromagnetic Torque Pulpations	81
Economics and Management of the National Economy	
Gerasenko A. V. Comparative Analysis of Operation Institutional Features	
in Transnational Corporations (Nestlé, Rosatom, COFCO)	88

- The journal is included in the Register of scientific journals of the Republic of Belarus for publishing the dissertations results on technical sciences Mechanical Engineering, Material Sciences, Power Engineering (HAC RB order № 101 of 04.06.2005): on economics sciences Economics and National Economy Management (HAC RB order № 26 of 02.02.2011) and in the Russian Scientific Citation Index (RSCI) database
- Published materials are reviewed
- Indexes for subscribing: for individuals 00063 for legal parties – 000632