

Selected papers presented on the Seventh International Conference
 “Modern Trends in Science” - FMNS-2017, 4 - 18.06.2017, Blagoevgrad, Bulgaria

CONTENTS

<i>Editorial – FMNS-2017</i>	5
<i>Section Chemistry</i>	
<i>T. Kamburi, L. Pinguli, L. Lici</i> , Impact of malt quality parameters on beer filtration optimization process	9
<i>F.I. Sapundzhi, T. A. Dzimbova</i> , Computer modelling of the CB1 receptor by Molecular Operating Environment	15
<i>P. Petrova, M. Chochkova, I. Karadjova, I. Dakova, M. Karadjov</i> , Amino acid functionalized silica gel as a selective sorbent for enrichment of Pt (II)	20
<i>I. Angelov, V. Beschkov</i> , Optimization of biogas production from lignocellulosic materials by different methods of substrate treatment	25
<i>B.R. Nussupbekov, A.K. Khassenov, D.Zh. Karabekova, M. Stoev, A.Zh. Beysenbek, B.I. Kazankap</i> , Electrohydraulic ragging of metallurgical silicon	29
<i>L. Dospatliev, M. Ivanova, K. Gavazov</i> , Correlation between Cambisols soil characteristics and lead content in wild edible mushrooms (<i>Cantharellus cibarius, Tricholoma equestre, Craterellus cornucopioides</i>)	32
<i>T.S. Stefanova-Bahchevanska, R.S. Ahmedov, S. Zaruba, V. Andruch, V.B. Delchev, L.K. Dospatliev, K.B. Gavazov</i> , A cloud-point extraction-chromogenic system for copper(II) based on 1-(2-thiazolylazo)-2-naphthol	38
<i>F.I. Sapundzhi, T.A. Dzimbova, N.S. Pencheva, P.B. Milanov</i> , Molecular docking experiments of cannabinoid receptor	44
<i>B. Stoykova, M. Chochkova, G. Ivanova, I. Tsvetkova, H. Najdenski, M. Štícha, Ts. Milkova</i> , Adamantane-1-carboxamides: synthesis and antimicrobial activity	49
<i>Section: Methodology in Education</i>	
<i>L. Kelo, M. Dede, S. Marko, E. Guliqani</i> , Didactic methods of teaching physics at "Fan S. Noli" University in Korca	57
<i>S. Marko, L. Kelo, E. Guliqani</i> , The problem solving method and the research needed to transmit the new sets of knowledge in physics	64
<i>G. Malchev</i> , Non-formal education of physics including making devices for demonstration	69
<i>R.I. Vassileva</i> , Cognitive problems for developing students’ scientific literacy in their physics education	72
<i>V.P. Dimitrova, M. E. Shekerliyska</i> : The role of using educational tasks in teaching chemistry	75
<i>Section: Physics and Technical Sciences</i>	
<i>L. Direkov</i> , Study of residual radioactivity in fish and fishery products imported into Bulgaria from China, Vietnam, Japan and Norway	81
<i>P. Petrov, D. Kaisheva, G. Bokuchava, I. Papushkin</i> , Study of residual stresses during electron beam welding of alloyed steels using neutron diffraction	85
<i>L.M. Ivanov</i> , Nanosized Improved multisoliton compressor.....	91
<i>V. Milovanski, G. Kalpachka</i> , Analysis of average power at simistor phase adjustment	95
<i>A. Majchrzycka</i> , Thermodynamic properties of helium – oxygen mixtures	99
<i>L.B. Petrova</i> , Stress distribution in elastic isotropic semi-space with concentrated vertical force	104
<i>L.B. Petrova</i> , Force line influences in a single static undetermined beam	110
<i>F.I. Sapundzhi, M.S. Popstoilov</i> , Optimization algorithms for finding the shortest paths	115
<i>Workshop “Recent Progress in Bio-electrochemical systems”</i>	
<i>S. Stefanov, E. Razkazova-Velkova, M. Martinov, Ts. Parvanova-Mancheva, V. Beschkov</i> , Sulfide and nitrate driven fuel cell. Chemical and biochemical denitrification	123
<i>N. Dimcheva, E. Horozova</i> , Improved operational stability of a laccase-based electrode applicable in biofuel cells	130
<i>M.Y. Mitov, I.O. Bardarov, E.Y. Chorbadzhiyska, Y.V. Hubenova</i> , Copper recovery combined with wastewater treatment in a microbial fuel cell	136
	157

Y. Hubenova, G. Ivanov, E. Hubenova, M. Mitov, Photo-induced charge transfer between <i>Lemna minor</i> and anode of photosynthesizing plant fuel cell	141
S. Hristoskova, I. Bardarov, D. Yankov, S. Danova, Y. Hubenova, M. Mitov, Identification of bacterial community in a Sediment Microbial Fuel Cell	147
Instruction to the authors	155