GREETINGS OF THE PROGRAM COMMITTEE'S CHAIRMAN	3
GREETINGS OF THE ORGANIZING COMMITTEE'S CHAIRMAN	4
THE PROGRAM COMMITTEE	5
THE ORGANIZING COMMITTEE	8
PLENARY PRESENTATIONS	10
THE CONFERENCE'S ORGANIZERS	15
COMPUTER SIMULATION IN THE CHEMICAL TECHNOLOGY AND ENGINEERING	30
CFD-Modeling of Thermal Agent Flow Through a Layer of Barley Brewer's Spent Grain. Roman Chyzhovych, Oleksandr Ivashchuk, Volodymyr Atamanyuk	31
Molecular Modeling of Electrical Conductive Polymer-Polymer Composites. <i>Oleh Khamar, Volodymyr Dutka, Yaroslav Kovalskyi, Halyna Halechko</i>	38
Theoretical Basis of Continuous Drying of Dispersed Materials. <i>Natalia Sorokova, Julia Kolchyk, Rodion Sorokovoi</i>	41
Mathematical Modeling of Nanofiltration: The Latest Trends and Developmental Perpectives. <i>Sherhii Huliienko, Svitlana Muzyka</i>	45
Condensation Mehanisms of Monomeric Tin Hydroxide Molecules and Formation of Polymorphic Stannic Acids: A Quantum Chemical Study. O. Filonenko, A. Grebenyuk, V. Lobanov	47
Theoretical Analysis of Steady-State Biooxydation Under Limitation and Inhibition by Substrate. <i>V.Poliakov</i>	50
Theoretical Investigations of Metal Ion Complexes with Polymer Ligands Based on Glycidyl Ethers of 3,5,7,3',4'-Pentahydroxyflavone. <i>Anastasiia Dunaieva</i> , <i>Oleksii Vashchenko, Dmytro Mishurov, Alexander Roshal</i>	58
DEVELOPMENT, ENERGY AND RESOURCE SAVING IN THE CHEMICAL AND FOOD TECHNOLOGIES	62
Chemical Engineering as Applied to Medicine: The New Challenges. <i>Tomasz R. Sosnowski</i>	63
Influence of Vulcanizing Systems on The Properties of Polymer Composites Based on Grafted Block Copolymers and Dispersed Crumb Rubber. <i>Volodymyr Myshak, Vita Seminog</i>	65
Preliminary Purification of Biogas from Hydrogen Sulfide in Biomethane Production. Andriy Slyuzar, Zenoviy Znak, Yaroslav Kalymon	67
Functional-Cost Analysis of Waste Mineral Oil Regeneration Methods. <i>Bohdan Korchak, Andriy Nagurskyy, Vitalii Stadnik, Oleg Grynyshyn, Serhiy Pyshyev</i>	69
Hydrodynamics of Jet-Pulsating Mode of Fluidization. <i>Yaroslav Kornienko</i> , Serhii Haidai	71
Kinetics of Filtration Drying of Matches Splint. Tetiana Kuzminchuk, Alina Denysiuk	75

The Influence of the Coordination Properties of Metals on the Activity of Binary Catalysts for the Oxidation of Cyclohexane. <i>Anatoliy Ludyn, Viktor Reutskyy, Volodymyr Reutskyy</i>	77
Radiation Treatment of Biological Origin Materials. Dmytro Tregubov	80
Heat Cost Calculation of the Process of Zucchini Fruits Saturation with Sucrose	
from an Aqueous Solution. Iryna Huzova, Volodymyr Atamanyuk	83
Acid-Alkaline Surface Properties of Powders: Potentiometric Research Methods. Yuliya Danchenko, Halina Olijnyk, Mariia Rastorgueva	85
Kinetics of Boric Acid Dissolution. Oleksandr Kuzyk, Yaroslav Humnytskyi	87
Some Aspects Determination of Heat Exchange Characteristics During the Flow of Non-Newtonian Fluids. <i>Eduard Biletsky, Olena Petrenko</i>	89
Managing Textile Waste as a Prerequisite for Implementing Circular Economy Principles in Ukraine. <i>Tetiana Ishchuk, Tetiana Ivanishena, Victoria Grekhova</i>	93
Producing and Applying Ingredients from Secondary Raw Materials of Sunflower Oil Production in Elastomeric Compounds. <i>Lina Sokolova, Oleksandra Panfilova, Valerii Ovcharov</i>	96
Effect of Cavitation Processing on Nitrogen Dissolution in Sunflower Oil. Andriy Piskorovskyi, Volodymyr Starchevskyy, Ivan Aftanaziv, Yuriy Vashkurak, Volodymyr Reutskyy	98
THE INNOVATIVE TECHNOLOGIES IN THE CHEMICAL AND FOOD INDUSTRIES	101
A Comparative Study in Metalloorganic Structural Chemistry: the X-ray Crystal Structures of [HB{C3N2H-3,5-(CH3)2}3Zr(OC6H5)3] and [HB{C3N2H-3,5-(CH3)2}3Zr(OC6H4-2-F)3]. Roman A Kresiński, Dinh-Quoc Tran	102
Effect of the Surface Modification of HAp Nanoparticles by Oleic Acid on the Properties of HDPE Nanocomposites Containing Thereof. <i>Viktor Tokarev, Denis Kalin, Maxim Chobit, Maria Tokareva</i>	106
Functionalization of Montmorillonite and Possibilities of Synthesizing a Urethane Oligomer on the Surface of Nanoparticles. <i>Oleksii Gonchar, Yuri Savelyev</i>	119
Fermentation of Kvass Wort by Thermotolerant Strains of Microorganisms. Lesia  Sandig-Predzymirska, Oksana Orobchuk, Liliya Shevchuk, Khrystyna Frys	123
Vibrocavitation Purification of Industrial Wastewater from Organic Pollutants.  Liliya Shevchuk, Oksana Orobchuk, Ivan Aftanaziv	127
Promising Cobalt-Containing Magnesium Aluminosilicate Glass-Ceramic Materials for Lasers on Yb-Er Glass. Oleh Tur, Oksana Savvova, Oleksii Fesenko, Oleksandr Rusanov	129
Synthesis and Properties of Lignin-Highly Branched Polymeric Systems.  Oleksandr Zaichenko, Kateryna Volianiuk, Nataliya Mitina, Khrystyna  Harhay, Oleh Izhyk	132
Development of a Fungicidal Glaze for Ceramic Tiles Resistant to Biological	
Corrosion. Yana Pokroieva, Oksana Savvova, Hennadii Voronov, Liudmyla Loban	136

Heat Storage System Based on Copper-Coates Granules of Polyethylene.  Anastasiia Kucherenko, Ludmila Dulebová, Marta Kuznetsova, Volodymyr  Moravskyi	139
Research of Compositions Polymerization of 2-Hydroxyethyl Methacrylate with Polyvinylpyrrolidone in the Presence of Finely Dispersed Metal-Containing Fillers. <i>Galyna Dudok, Natalia Semenyuk, Nataliia Chopyk, Volodymyr Skorokhoda</i>	143
Particles size organization and effect of solution of humic acid with LaVO4:Eu <sup>3+</sup> nanoparticles on seed germination. <i>N.N. Kriklya (Kamneva), M. Popirny, K. Artemieva, V. Klochkov</i>	145
Creation of Cosmeceutical Hydrogel Mask with Plant Extract. Ya.I. Holubovska, R.O. Petrina, I.R. Buchkevych, M.S. Kurka	147
Suspension Oligomerization of the Hydrocarbon Fraction C9 Initiated by 2-[4- (Tert-Butylperoxymethyl) Piperazinomethylperoxy]-2-Methylpropane. <i>Yevhenii Zhuravskyi, Roman Subtelnyi, Dariia Kichura, Bohdan Dzinyak</i>	149
Polylactide Composite Films with Silver Nanoparticles in the Structure. <i>Volodymyr Skorokhoda, Natalia Semenyuk, Galyna Dudok</i>	151
Thermomechanical and Thermophysical Properties of Polyamide-6 Based Nanocomposites. <i>Natalia Chopyk, Victoria Zemke, Mykhaylo Bratychak</i>	153
Se-Driven Microgel Catalysts for Interfacial Oxidation Reactions. <i>Anastasia Pavliuk, Oliver Fiukowski, Tetiana Kharandiuk, Volodymyr Ivasiv, Roman Nebesnyi, Andrij Pich</i>	155
OPTIMIZATION OF BIOCHEMICAL PROCESSES AND	
BIOENGINEERING	157
Nanoparticles Modification for Magnetic Electrospun Composites for Tissue Engineering. Anna Hlukhaniuk, Małgorzata Świętek, Vitalii Patsula, Beata Zasońska, Jiří Hodan, Antonín Brož, Marina Malić, Daniel Horák	158
Biocompatible Scaffolds Based on Glass-Ceramic Materials for Bone Tissue Engineering. Valeriia Bitiutska, Oksana Savvova, Oleksii Fesenko, Olena	
Babich, Daria Kozlo	163
Study on the Applicability and Precision of a New Adaptation of Optical Mixing Time Measurement Method in a ReadyToProcess WAVE 25 Bioreactor.	1.65
Mateusz Bartczak, Maciej Pilarek	167
GREEN CHEMISTRY	173
4 Years in the Łukasiewicz Research Network. Marcin Konkol, Katarzyna Tyśkiewicz, Magdalena Woźniakowska	174
Bio-Based Hybrid Non-Isocyanate Polyurethane (NIPU)/Epoxy Foams. <i>Nataliia Hudzenko, Liudmyla Gryshchuk</i>	178
Production of Epoxidized Waste Cooking Oil for Road Bitumen. <i>Ivan Danylevych, Yurii Hrynchuk, Volodymyr Starchevskyy, Volodymyr Reutskyy</i>	180
Efficient Synthesis of Conjugated 1,3,4-Thiadiazole Derivatives under Suzuki	

Synthesis and Application of Zinc Oxide Nanoparticles for Photodegradation of Organic Pollutants, Antibiotic Ofloxacin and Dye Methyl Orange, in Water. <i>Oksana Makota, Inna Melnyk</i>	185
Glycopolymers Based on Water Soluble Polysaccharide and Blocked Isocyanate.  Nataly Kozak, Viktoriia Tretinichenko	187
Research Methods Used to Control the Plasticization and Retrogradation Process of Starch. Magdalena Paluch, Justyna Ostrowska, Piotr Tyński, Waldemar Sadurski, Robert Bicki	189
N-Hydroxyphthalimide and its Derivatives for Laccase-Catalyzed Oxidative Degradation of Indigo Carmine. <i>Olga Kushch, Iryna Hordieieva, Tetiana Hordieieva, Mykhailo Kompanets, Alexander Shendrik</i>	196
ALTERNATIVE AND NON-CONVENTIONAL ENERGY SOURCES	200
Increasing the Energy Efficiency of a Rotor-Pulsed Cavitation Heat Generator Using the Electrohydraulic Effect. Valeriy Nikolsky, Vadim Yaris, Andriy	
Palagnyuk	201
TGA and DTA of Composite Fuel and its Components. <i>Tetiana Korinchevska</i> , <i>Viacheslav Mykhailyk</i>	204
Advance in Technologies of Aviation Scrap Tires Disposal and Recycling. <i>Igor Kubersky, Anna Yakovlieva, Sergii Boichenko</i>	209
Study of Drying of Solid Peat Residue and Composite Based on It. <i>Zhanna Petrova</i> , <i>Yuliia Novikova</i> , <i>Anton Petrov</i>	212
ECOLOGY AND SUSTAINABLE DEVELOPMENT. ENVIRONMENTAL PROTECTION	214
An Assessment of Synthesis and Effectiveness of Potassium Ferrate(VI) as a Green Agent in the Treatment of Carwash Wastewater. <i>Maciej Thomas, Joanna Kuc, Teresa Stryszewska</i>	215
Effective Protective Polymer Materials Stable to Destructive Factors. Ludmila Markovska, Natalia Parkhomenko, Olga Savelyeva, Ludmila Robota, Yuri Savelyev	218
Reclamation of Technogenically Damaged Territories of a Sulfur Production Enterprise Using the Method of Stimulating Microisogenesis in Plants.  Viktorija Oliferchuk, Mariia Samarska, Oleg Nagurskyy, Viktor Vasiichuk, Kateryna Vykhivska	221
Analysis of Parameter Sensitivity to Enhance the Detection of Leaks in Sealed Landfills. <i>Marco Vocciante</i> , <i>Vincenzo Dovì</i>	224
Polyethylene Packages and Polyethylene Terephthalate Bottles - a Source of Precursors for Chemical Syntheses. <i>Tetiana Tkachenko, Dmytro Kamenskyh, Vitalii Yevdokymenko</i>	229
Empirical Cumulative Function of Distribution Studies of the Dynamics of State the Gas Medium in the Fire Heat Sources Occurrence. <i>Boris Pospelov</i> , <i>Evgeniv Rybka, Ruslan Kornienko</i>	234

Study of Changes in Acid-Alkaline Balance of Cooling Water Circulating System	
of Power Plants during Water Treatment by Liming According to	
Stabilization Treatment Method. Pavlo Kuznietsov, Olga Biedunkova	239
Investigation of the Sorption Properties of Synthetic Layered Double Hydroxides	
of Variable Composition for the Protection of Water Bodies from Organic	
and Inorganic Pollutants. Eleonora Butenko	242
Protection of Steel by Environmentally Friendly Anti-Corrosion Pigment. Mariia-	
Olena Danyliak, Ivan Zin, Myroslav Holovchuk, Sergiy Korniy	245
Containerized Plug & Play Sludge Dewatering Plants as a Energy and Cost-	
Effectivness Solution for Small and Middle WWTP'S. Andrii Shevchenko,	
Tamara Shevchenko	249
Adsorption Removal of Surfactants from Wastewater: A Review of Adsorbents and	
Mechanisms. Vira Sabadash, Jaroslav Gumnitsky, Oleh Konovalov	253
The Impact of Rocket Attacks in the Lviv Region on Sustainable Development and	
Statistical Forecasts of Environmental Consequences. Kateryna Petrushka,	
Ihor Petrushka	255
Technical Alternatives for the Reconstruction of the «Ternopilskyi» Water Intake	
of the «Ternopilvodokanal» Utility Company. Tetiana Pokshevnytska,	
Vitalina Lukianova, Konstantyn Smoliar, Andrii Pokshevnytskyi	258
Anti-Corrosion Protection of Aluminum Alloy by Composition Based on	
Polysaccharide and Sorbate. O.P.Khlopyk, I.M.Zin, M.B.Tymus, N.J.	
Sobodosh, S.A.Korniy	262
CONTENT	264
SPONSORS AND PARTNERS	270