

CONFERENCE PROCEEDINGS CONTENTS

MICRO AND NANO TECHNOLOGIES

1. **A STUDY OF PHASE INTERACTIONS AND SINTERING IN TiO_2 - ZrO_2 -BASED CERAMICS WITH SINTERING AIDS OF DIFFERENT NATURE**, Assoc. Prof. Dr. Maria Vartanyan, MSc. Olga Shubabko, Assoc. Prof. Nellya Popova3
2. **EFFECT OF NANODISPERSE FILLERS FROM $YBa_2Cu_3O_{6+x}$ IN POLYIMIDE COMPOSITE FILMS ON INTERACTIONS BETWEEN MACROMOLECULES OF THE POLYMER MATRIX**, Dr. Nazym Agishanova, Dr. Gulsara Zhamanbayeva, Prof. PhD. Abyl Muradov, Prof. DSc. Kanat Mukasev, Dr. Zhansaya Berzhanova11
3. **MECHANISM OF FORMATION OF A HIGHLY ADHESIVE METAL LAYER TO THE POLYMER SURFACE**, Dr. Zhansaya Berzhanova, Dr. Gulsara Zhamanbayeva, Assoc. Prof. PhD Abyl Muradov, Prof. DSc. Kanat Mukasev, Dr. Nazym Agishanova.....21
4. **MINERAL COMPOSITION OF DIFFERENT WHEAT VARIETIES CULTIVATED IN ROMANIA**, PhD Stud. Maria Camelia Golea, Lecturer Silviu Gabriel Stroe, Prof. Dr. Georgiana Gabriela Codina.....31
5. **RESEARCH AND EVALUATION OF RAT BLOOD INDICATORS AT REPEATED INHALATION EXPOSURE BY COPPER (II) OXIDE NANOPARTICLES AEROSOL**, Mark Stepankov, Marina Zemlyanova, Nina Zaitseva, Anna Ignatova, Alena Nikolaeva39
6. **THE EFFECT OF ADDITIVES ON THE ACID-BASE PROPERTIES OF THE CLAY SURFACE**, Assoc. Prof. Dr. Evgeniya Nurieva, Assoc. Prof. Dr. Andrey Bogdanov, Assoc. Prof. Dr. Aleksey Eskin, Engineer Bulat Galiyllin47

ADVANCES IN BIOTECHNOLOGIES

7. **ALLELIC POLYMORPHISM OF SYMBIOTICALLY ESSENTIAL GENES OF SINORHIZOBIIUM MELILOTI NATIVE TO LEGUME PLANTS ORIGIN AT THE CAUCASUS**, Alla Saksaganskaia, Viktoria Muntyan, Alexey Muntyan, Prof. Dr. Boris Simarov, Dr. Marina Roumiantseva.....55
8. **CHARACTERISTICS OF THE GROWTH AND DEVELOPMENT OF SEED PEAS UNDER THE ACTION OF SECONDARY METABOLITES OF SOSNOVSKY'S HOGWEED LEAVES**, Junior researcher Svetlana Kozlova....63

9. CHARACTERIZATION OF SPENT GRAIN FROM A MALT WHISKY ROMANIAN DISTILLERY, PhD Stud. Ancuta Chetrariu, Prof. Dr. Adriana Dabija	71
10. CHEMICAL CHARACTERIZATION OF WHEAT-GERMINATED LEGUMES COMPOSITE FLOURS, Prof. Dr. Georgiana Gabriela Codina, Eng. Madalina Iuga, Assoc. Prof. Dr. Silviu Gabriel Stroe, Prof. Dr. Silvia Mironeasa..	79
11. CHEMICAL ECOLOGICAL FACTORS AND IMMUNE PROFILE UNDER ALTERED POLYMORPHISM OF XENOBIOTIC DETOXIFICATION GENES, Assoc. Prof. Dr. Oleg Vladimirovich Dolgikh, Prof. Dr. Nina Vladimirovna Zaitseva, Dr. Natalya Alekseevna Nikonoshina,.....	89
12. COMPARATIVE EVALUATION OF THE PHYSICO-CHEMICAL CHARACTERISTICS OF BUCKWHEAT MALT AND BARLEY MALT, Prof. Dr. Adriana Dabija, PhD Stud. Marius Eduard Ciocan, PhD Stud. Ancuta Chetrariu, Stud. Darius Mirzan	97
13. DRUG-PEPTIDE CONJUGATES: SOLID PHASE SYNTHESIS AND MASS SPECTROMETRIC CHARACTERIZATION, Dr. Laura Darie-Ion, Prof. Dr. Gabi Drochioiu, PhD stud. Stefania-Claudia Jitaru, PhD stud. Cosmin-Stefan Mocanu, Assoc. Prof. Dr. Brindusa Alina Petre	105
14. EFFECT OF POTASSIUM CHLORIDE ON DOUGH RHEOLOGY AND BREAD QUALITY, PhD Stud. Andreea Voinea, Lecturer Silviu-Gabriel Stroe, Lecturer Sorina Ropciuc, Prof. Dr. Georgiana Gabriela Codina.....	113
15. EFFECTS OF ROSEMARY EXTRACT ON BREAD QUALITY AND IT ACRYLAMIDE CONTENT, Eng. Cristina Valentina Sarion, Prof. Dr. Adriana Dabija, Prof. Dr. Georgiana Gabriela Codina	123
16. EFFECTS OF SOSNOWSKY'S HOGWEED BIOLOGICALLY ACTIVE METABOLITES ON GREEN CROPS PRODUCTIVITY IN MURMANSK REGION, Junior researcher Svetlana Kozlova	131
17. EFFECTS OF STRESS FACTORS IN THE GROWTH MEDIUM ON BIO-COMPOUNDS PRODUCTION BY PORPHYRIDIUM PURPUREUM, Dr. Eng. Anca Paulenco, PhD Student Alin Cristian Nicolae Vintila, Dr. Eng. Ana-Maria Galan, PhD Student Alexandru Vlaicu, Dr. Eng. Ionut Banu.....	139
18. EXPANDABLE IOT ARCHITECTURE FOR LIVESTOCK IN AGRICULTURE 5.0, Dr. Kristina Dineva, Assoc. Prof. Dr. Tatiana Atanasova	147
19. HEAT TRANSFER COEFFICIENT IN ENERGY-INTENSIVE PROCESSES OF SUNFLOWER OIL TECHNOLOGY, Prof. Dr. Sci. Aleksandr Lisitsyn, Assoc. Prof. Roman Olekhovich, Prof. Dr. Sci. Aleksandr Fedorov, PhD Sergey Volkov, PhD student Aleksey Fedorov	155

20. IMMOBILIZATION OF GLUCOSE OXIDASE ON MAGNETIC MESOPOROUS OXIDES, Prof. Valentina Matveeva, PhD Student Aleksandrina Sulman, Dr. Olga Grebennikova, Dr. Boris Tikhonov, Dr. Alexander Sidorov ...	163
21. IN SITU ELECTROCHEMICAL METHOD FOR DETERMINING NICKEL IONS IN FRUITS, Dr. Liliana Anchidin-Norocel, Prof. Dr. Gheorghe Gutt, Prof. Dr. Sonia Amariei.....	171
22. INFORMATIONAL AND STRUCTURAL MODEL OF BIOECOMEDICINE, Prof. Dr. Tetiana Khrystova, Assist. Prof. Oksana Kovalchuk	177
23. MAGNETIC MESOPOROUS MATERIALS AS AN EFFECTIVE SUPPORT FOR THE IMMOBILIZATION OF ENZYMES, PhD Student Aleksandrina Sulman, Prof. Valentina Matveeva, Dr. Olga Grebennikova, Dr. Boris Tikhonov, Dr. Natalya Lakina	185
24. MINIMUM INHIBITORY CONCENTRATIONS OF ORGANIC ACIDS AGAINST FOODBORNE OPPORTUNISTIC MICROBIAL PATHOGENS, Svetlana Evdokimova, Assoc. Prof. Dr. Boris Karetkin, Vera Nokhaeva, Assoc. Prof. Dr. Elena Guseva, Assoc. Prof. Dr. Irina Shakir	193
25. NEW APPROACHES IN THE DEVELOPMENT OF BIOPOLYMERS BASED - MATERIALS USED FOR FOOD PACKAGING, Dr. Roxana Gheorghita, Dr. Liliana Anchidin-Norocel	201
26. OBTAINING MALTODEXTRIN FROM PEA FLOUR, PhD Viktor Ananskikh, PhD Alexander Papakhin, Senior researcher Lyubov Shleina.....	209
27. ODRAP: A WEB DATABASE FOR SEARCHING AND ENTERING INFORMATION INPUT ABOUT PREBIOTICS AND THEIR ACTIVITY, Assoc. Prof. Elena Guseva, Assoc. Prof. Boris Karetkin, Diana Batyrgazieva, Alla Denisova, Prof. Natalya Menshutina.....	217
28. POTENTIAL OF BIOSURFACTANT PRODUCTION IN BACTERIA ISOLATED FROM OIL POLLUTED SOILS, Dr. Liliya Biktasheva, Prof. Dr. Polina Galitskaya, Prof. Dr. Svetlana Selivanovskaya.....	225
29. SCREENING OF ANTIOXIDANT AND PUFA PRODUCTION IN DUNALIELLA SALINA BY ALTERING GROWTH NUTRITIONAL FACTORS, PhD student Alexandru Vlaicu, PhD student Alin Cristian Nicolae Vintila, PhD Adrian Radu, Dr. Cristina Emanuela Enascuta, Dr. Elena-Emilia Oprescu.....	233
30. STUDY AND OPTIMIZATION OF BIOCONVERSION OF PLANT RENEWABLES AND ORGANIC WASTE, Prof. Vladimir Molchanov, Prof. Yury Kosivtsov, Ms. Zinaida Nekhaeva, Dr. Antonina Stepacheva, Dr. Elena Ozhimkova	241

31. **STUDY OF THE KINETICS OF THE GELATION PROCESS OF GELATIN IN VARIOUS DISSOLVING SYSTEMS**, PhD student Mikhail Litvinov, Prof. Dr. Sci. Mayya Uspenskaya, MS student Konstantin Kovalev, PhD Aleksandr Podshivalov249
32. **SINORHIZOBIUM MELILOTI HARBOURED DISTINCT ALLELES OF nod GENES SHOWED DIFFERENT SYMBIOTIC ACTIVITY ON MEDICAGOLUPULINA AND MEDICAGO VARIA**, Alla Saksaganskaia, Mariia Vladimirova, Viktoria Muntyan, Dr. Marina Roumiantseva.....257
33. **THE ANALYSIS OF SCRAPIE GENOTYPE OF THE GENETIC RESOURCES OF LATVIAN DARK HEAD BREED**, Mg. agr. Dace Barzdina, Prof. Dr. agr. Daina Kairisa 263
34. **THE DEVELOPMENT OF BIODEGRADABLE FILMS FOR FOOD PACKAGING**, Prof. Dr. Sonia Amariei, PhD Vasile-Florin Ursachi, PhD Ionut Avramia271
35. **THE IMPORTANCE OF STARCH SOURCE IN THE DEVELOPMENT OF EDIBLE MATERIALS FOR FOOD PACKAGING**, Dr. Roxana Gheorghita Puscaselu, Prof. Dr. Gheorghe Gutt279
36. **VALUABLE PRODUCTS FROM THE BIOMASS OF A METHANE OXIDIZING CONSORTIUM AND OPTIMIZATION OF DENUCLEARIZATION PROCESS**, Leonid Erokhin, Anna Aleshkina, Daniil Poberezhniy, Prof. Dr. Alla Krasnoshtanova, Assoc. Prof. Nikolay Suyasov287
37. **ZEIN CONJUGATES OF BIOMEDICAL INTEREST: SYNTHESIS AND CHARACTERIZATION BY MALDI-TOF MASS SPECTROMETRY AND FOURIER TRANSFORM INFRARED SPECTROSCOPY**, Dr. Laura Darie-Ion, Prof. Dr. Gabi Drochioiu, Prof. Dr. Aurel Pui, PhD student Elena Mihalcea, Assoc. Prof. Dr. Vasile Robert Gradinaru.....295

GREEN BUILDINGS TECHNOLOGIES AND MATERIALS

38. **STUDY OF THE POSSIBILITY TO PRODUCE NATURAL PIGMENTS ON A BASE OF UNPROFITABLE IRON DEPOSITS AND DEVELOPMENT OF TECHNOLOGIES**, Prof. Nikoloz Chikhradze, Nino Shekrladze, Asmat Shekiladze, Otav Kavtelashvili, Mamuka Bagnashvili.....305
39. **ANALYSIS OF THERMAL CONDUCTIVITY OF FIBER REINFORCED RED CERAMIC WASTE AGGREGATE CONCRETE BY SURFACE PROBE**, Jiri Teslik, Katerina Stejskalova, Marie Hornakova.....313
40. **BIODEGRADABLE POLYMER COMPOSITE MATERIALS WITH HIGH MECHANICAL PROPERTIES**, Prof. Nikoloz Chikhradze, Prof. Guram Abashidze, Dr. Sophiko Kvinikadze, Lia Kirtadze, Aleksandre Vanishvili,321

41. CDW GLASS-BASED SOLID ACTIVATORS DEVELOPMENT FOR FLY ASH GEOPOLYMERIZATION, PhD Olga-Andriana Panitsa, Dr. Dimitrios Kioupis, Prof. Dr. Glykeria Kakali.....	329
42. EFFECT OF ENVIRONMENTAL AGING ON THE MECHANICAL BEHAVIOR OF CARBON FIBER COMPOSITE PLATE, Assist. Prof. Dr. Ivelina Ivanova, Assoc. Prof. Dr. Jules Assih	339
43. EFFECT OF MIXTURE PREPARATION TECHNIQUE ON PROPERTIES OF GRAPHENE DOPED MOC, Prof. PhD. Milena Pavlikova, PhD. Martina Zaleska, PhD Adam Pivak, Assoc. Prof. Dr. Ondrej Jankovsky, Prof. PhD Zbysek Pavlik.....	345
44. ELECTRICALLY CONDUCTIVE CEMENT PASTE, MODIFIED WITH HIGHLY EFFICIENT POLYMER PLASTICIZER, Prof. Dr. Svetlana Samchenko, Assoc. Dr. Oksana Larsen, PhD student Anton Bakhrakh, Eng. Artem Solodov.....	353
45. EXPLORATORY STUDY ABOUT RICE HUSK ASH AS PARTIAL SUBSTITUTE OF CEMENT IN CONCRETE APPLICATIONS, Nara Cangussu, Lucas Martins, Lino Maia.....	359
46. IMPROVEMENT OF CONSISTENCY AND SETTING TIME OF MAGNESIUM POTASSIUM PHOSPHATE CEMENT PASTES AND MORTARS, Prof. Zbysek Pavlik, Ing. Simon Marusiak, Ing. Adam Pivak, Prof. PhD. Milena Pavlikova.....	367
47. MINE TAILINGS-BASED TECHNOSOLS FOR THE GREEN INFRASTRUCTURES SECTOR, Dr. Marian Butu, Dr. Steliana Rodino, Bogdan Miu, Dr. Gina Fidler, Dr. Alina Butu	375
48. PREDICTION OF BIOFILMS COLONIZATION PROCESS USING COMPUTATIONAL MODELLING TECHNIQUE, Dr. Vaclav Koci, Dr. Klara Kobeticova.....	383
49. PROPERTIES OF MAGNESIUM OXYCHLORIDE CEMENT DOPED BY PARTIALLY OXIDIZED MULTI-WALLED CARBON NANOTUBES, Assoc. Prof. Ondrej Jankovsky, Bc. Anna Marie Lauermannova, Ing. Michal Lojka, Prof. Milena Pavlikova, Prof. Zbysek Pavlik	391
50. NON-DESTRUCTIVE DIAGNOSTIC METHODS AND REGRESSION EQUATION DURING BUILDING STRUCTURE DIAGNOSIS, Eng. Jakub Niedoba, Eng. Kristyna Hrabova, Eng. Dominik Masarik, Eng. Sabina Hublova, Assoc. Prof. PhD Petr Cikrle.....	401
51. RESEARCH OF MECHANICAL AND THERMAL PROPERTIES OF INTERIOR PLASTERS WITH PHASE CHANGE MATERIAL, Katerina Stejskalova, David Bujdos, Katerina Kubenkova	409

52. **SALT CRYSTALLIZATION TEST OF REPAIR LIME PLASTER CONTAINING ZEOLITE**, PhD Martina Zaleska, Prof. Milena Pavlikova, Ing. Adam Pivak, Assoc. Prof. Ondrej Jankovsky, Prof. Zbysek Pavlik.....417
53. **SUNFLOWER SEED SHELLS AND SHEEP WOOL, STARTING POINTS FOR INNOVATIVE COATINGS WITH THERMAL INSULATION PROPERTIES**, Dr. Irina Popa, Dr. Cristian Petcu, Chem. Alexandra Muresanu425
54. **THE ASSESSMENT OF STRUCTURAL CONCRETE WITH RECYCLED AGGREGATES IN TERMS OF SUSTAINABILITY**, Eng. Kristyna Hrabova, Eng. Jakub Niedoba, Assoc. Prof. Tomas Vymazal, PhD Jaromir Lanik, Prof. Bretislav Těplý433
55. **THEORETICAL AND EXPERIMENTAL RESEARCHES REGARDING THE QUALITY EXECUTION OF CONCRETE STRUCTURAL ELEMENTS AND RISKS ANALYSIS GENERATED BY THESE CONCEALED WORKS**, PhD Bianca Pironea.....441

GREEN DESIGN AND SUSTAINABLE ARCHITECTURE

56. **LANDSCAPE URBANISM - TRANSFORMATION AND MODERNIZATION OF THE CITIES**, Assoc. Prof. PhD. Kliment Naydenov.....451
57. **QUANTITATIVE MULTICRITERIAL EVALUATION OF PUBLIC SPACE**, Eng. Jakub Takacs, PhD Silvia Capayova.....459
58. **THE USE OF MEDICINAL PLANTS IN LANDSCAPE DESIGN IN THE STEPPE ZONE OF UKRAINE**, Assoc. Prof. Yuliia Bredikhina, Assoc. Prof. Natalia Turovtseva, Assoc. Prof. Sergey Podorozhniy, Assoc. Prof. Olga Pyurko, Assoc. Prof. Tetiana Lohvina-Byk467
59. **ECOLOGICAL URBANISM, URBAN ECONOMY AND POLICIES FOR BUILDING SUSTAINABLE CITIES OF THE FUTURE**, Chief. Assist. Prof. Dr. Metodi Ivanov475

SPACE TECHNOLOGIES AND PLANETARY SCIENCES

60. **CHANCES AND CHALLENGES OF TERRAFORMING OTHER PLANETS**, Dr. Dumitru-Dorin Prunariu, Prof. Dr. Ildiko Tulbure485
61. **GEOMAGNETIC STUDIES AS PART OF THE MODELS REGARDING SPACE WEATHER AND CLIMATIC CHANGE**, Dr. Laurentiu Asimopolos, Dr. Natalia Silvia Asimopolos, Assist. Prof. Adrian Aristide Asimopolos.....493