

BOOK of ABSTRACTS



International Conference
on Advanced Production and Processing

**1st International Conference
on Advanced Production and Processing
10th-11th October 2019
Novi Sad, Serbia**

Title:

Book of Abstracts of the 1st International Conference on Advanced Production and Processing publishes abstracts from the following fields: Innovative Food Science and Bioprocesses, Nutraceuticals and Pharmaceuticals, Sustainable Development, Chemical and Environmental Engineering, Materials Design and Applications, Petroleum Refining and Production.

Publisher:

University of Novi Sad, Faculty of Technology Novi Sad,
Bulevar cara Lazara 1, 21000 Novi Sad, Serbia

For publisher:

prof. Biljana Pajin, PhD, Dean

Editorial board:

Mirjana Jovicic, Ljiljana Popovic, Zdravko Sumic, Milica Hadnadjev, Olga Govedarica, Snezana Vucetic i Oskar Bera.

Editor-in-Chief:

Prof. Senka Vidović, PhD

Design and Printing Layout:

Saša Vulić, Tamara Krstić

CIP - Каталогизacija u publikaciji
Biblioteka Maticе српске, Нови Сад

658.5(048.3)

INTERNATIONAL Conference on Advanced Production and Processing (1 ; 2019 ;
Novi Sad)

Book of abstracts [Elektronski izvor] / 1st International Conference on Advanced
Production and Processing, 10th-11th October 2019 Novi Sad ; [editor-in-chief Senka
Vidović]. - Novi Sad : Faculty of Technology, 2019

Nasl. s naslovnog ekrana.

ISBN 978-86-6253-102-5

a) Технологија - Производња - Апстракти

COBISS.SR-ID 330974471



**1st International Conference
on Advanced Production and Processing
10th-11th October 2019
Novi Sad, Serbia**

CONFERENCE CHAIRMAN

Prof. Biljana Pajin, Dean of the Faculty of Technology Novi Sad

HONORARY COMMITTEE

Mladen Šarčević, The Minister of Ministry of Education, Science and Technological Development of the Republic of Serbia

Professor Dejan Jakšić, Rector of University of Novi Sad, Serbia

Professor Miroslav Vesković, EC DG Joint Research Centre, Belgium and University of Novi Sad, Serbia.

Professor Zoran Petrović, Emeritus Professor at Kansas Polymer Research Center, Pittsburg State University, USA.

Professor Radmila Marinković Nedučin, Emeritus Professor at University of Novi Sad, Serbia.

Professor Marijana Carić, Emeritus Professor at University of Novi Sad, Serbia.

ORGANISING COMMITTEE

from the Faculty of Technology Novi Sad, University Novi Sad, Serbia

Prof. Senka Vidović
Prof. Jaroslav Katona
Prof. Dragan Govedarica
Prof. Jaroslava Švarc- Gajić
Prof. Jelena Vulić
Prof. Vesna Tumbas Šaponjac
Prof. Aleksandar Fišteš
Prof. Vladimir Tomović
Prof. Senka Popović
Prof. Jelena Prodanović
Prof. Nataša Đurišić-Mladenović
Prof. Snežana Vučetić
Prof. Jelena Pavličević
Prof. Jelena Jerković
Prof. Oskar Bera
Prof. Ljiljana Popović
Prof. Mirjana Jovičić
Prof. Milica Hadnađev-Kostić
Prof. Jelena Pejcin
Prof. Branislava Nikolovski
Prof. Olga Govedarica
Prof. Strahinja Kovačević
Zdravko Šumić, Assistant with Ph.D.
Sanja Panić, Research Associate
Ivana Lončarević, Research Associate
Jelena Vladić, Research Associate
Predrag Kojić, Research Associate
Nataša Nastić, Research Assistant
Olja Šovljanski, Research Trainee

SCIENTIFIC COMMITTEE

- Prof. Vladimir Srdić, Faculty of Technology Novi Sad, University of Novi Sad, Serbia
- Prof. Jasna Čanadanović-Brunet, Faculty of Technology Novi Sad, University of Novi Sad, Serbia
- Prof. Sanja Podunavac-Kuzmanović, Faculty of Technology Novi Sad, University of Novi Sad, Serbia
- Prof. Mirjana Antov, Faculty of Technology Novi Sad, University of Novi Sad, Serbia
- Prof. Zita Šereš, Faculty of Technology Novi Sad, University of Novi Sad, Serbia
- Prof. Sergej Ostojić, Faculty of Sport and Physical Education, University of Novi Sad, Serbia
- Prof. Viktor Nedović, Faculty of Agriculture, University of Belgrade, Serbia
- Prof. Saule Aidarova, Kazakh-British Technical University, Almaty, Kazakhstan
- Luisa Gouveia, Senior Research Associate, National Laboratory for the Energy and Geology, Portugal
- Prof. Víctor Cerdà, Department of Chemistry, University of Balearic Islands, Spain
- Prof. Rita Ambrus, Faculty of Pharmacy, University of Szeged, Hungary
- Prof. Sonja Smole Možina, Biotechnical Faculty, University Ljubljana, Slovenia
- Prof. Cecilia Hodur, Faculty of Engineering, University of Szeged, Hungary
- Ana Matias, Auxiliary Instigator-Head of the Lab, Instituto de Biologia Experimental e Tecnologica, Portugal
- Prof. Alexander Knyazev, Lobachevsky State University of Nizhni Novgorod, Russia
- Prof. Dmitry Grishin, Lobachevsky State University of Nizhni Novgorod, Russian Academy of Sciences, Russia
- Prof. Stela Jokić, Faculty of Food Technology, University of Josip Juraj Strossmayer Osijek, Croatia
- Prof. Andreja Rajković, Faculty of Bioscience Engineering, University Gent, Belgium
- Olivera Đuragić, Senior Research Associate, Institute of Food Technology in Novi Sad, University of Novi Sad, Serbia
- Nebojša Ilić, Senior Research Associate, Institute of Food Technology in Novi Sad, University of Novi Sad, Serbia
- Katarina Šavikin, Senior Research Associate, Institute “Dr Josip Pančić”, Belgrade, Serbia
- Prof. Slobodan Gadžurić, Faculty of Science, University of Novi Sad, Serbia
- Prof. Aleksander Poređa, Faculty of Food Technology, University of Agriculture in Krakow, Poland
- Charis Galanakis, Galanakis Laboratorie, Greece and ISEKI Food Association, Austria
- Prof. Andrijana Sever Škapin, The Slovenian National Building and Civil Engineering Institute and Faculty of Health Science, University of Ljubljana, Slovenia
- Prof. Ljiljana Mojović, Faculty of Technology and Metallurgy, University of Belgrade, Serbia
- Prof. Reinhard Miller, Max Planck Institute of Colloids and Interfaces in Potsdam/Golm, Germany
- Prof. Spyros Gkelis, School of Biology, Aristotle University of Thessaloniki, Greece
- Prof. Vlada Veljković, Faculty of Technology, Leskovac, Serbia
- Prof. Anatolij Evgenyevich Shamin, Rector of University from Nizhny Novgorod, Russia
- Prof. Nataša Jovanović Lješević, Dean of Faculty of Pharmacy Novi Sad, Serbia
- Prof. Ayse Zehra Aroguz, İstanbul Üniversitesi Akademik Bilgi Sistemi, Istanbul, Turkey



Innovative Food Science and Bioprocesses



OIL AND PROTEIN CONTENTS IN RAPESEED (*BRASSICA NAPUS* L.) AS A FUNCTION OF ENVIRONMENTAL CONDITIONS DURING SEED FILLING PERIOD

Ana Marjanović Jeromela¹, Nada Grahovac¹, Vladimir Šarac², Vladimir Aćin¹, Milan Mirosavljević¹, Ankica Kondić Špika¹

¹ *Institute of Field and Vegetable Crops, Maksima Gorkog 30, 21000 Novi Sad, Serbia*

² *"Victoriaoil" AD, Šid, Srbija*
ana.jeromela@ifvcns.ns.ac.rs

Rapeseed (*Brassica napus* L.) is the third most important oilseed crop in the world, after palm and soybean, and is an excellent raw material for edible oil and biodiesel production. It is one of the most important plants of *Brassicaceae* family which its seed contains more than 40% oil and its meal is rich in protein. Oil belongs to a group of semi-drying oil with iodine value 95-120. It is used in nutrition and for technical purposes. Meal from rapeseed after oil extraction provides a protein rich animal feed. Many studies reported that the quality of rapeseed greatly influenced by the water stress occurred from flowering up to the ripening of seeds and under water stress condition the varieties that are capable of maintaining much more water would have more seed yield and consequently more oil content. In this study we used a multi-year results (2007-2018) the quality of rapeseed as a raw material for the further processing, obtained from the company Victoriaoil, Šid. In order to determine the association between seasons and meteorological indicators, precipitation, temperature (minimum, maximum and mean) were analyzed during each growing season. Based on these data for each meteorological parameter were calculated three variables corresponding to the months of the vegetation period of the rapeseed. PCA analysis was done on a set of meteorological indicators and the content of oil and protein in grain, after which a biplot from the first two PCA axes was constructed in order to visualize the association between the season, grain quality and meteorological indicators. According biplot, there was a close relationship between oil content and precipitation during the month of April. Also, the precipitation in May is in a positive association with the oil content, while the rainfall in June was not related to this trait. On the other hand, there was no clear association between the temperatures in May and the protein content, which is probably the result of low temperature variations in May during the four studied years. Then again, the association of protein content with meteorological indicators was analyzed during the last 4 years (2014-2017), with the first PCA axis explaining 45.82% and the other PCA axis 40.93% of the variability. Weather conditions had a significant impact on the content of oil and protein in grain during the growing rapeseed season, especially temperature and precipitation.

Keywords: oil and protein content, rapeseed, environmental conditions

Acknowledgements: his study was supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia (the project no. TR 31025).



INNOVATIVE FOOD SCIENCE AND BIOPROCESSES	1
CHARACTERISATION OF PROTEINS AND SURFACTANTS AT FLUID INTERFACES RELEVANT FOR FOAMS AND EMULSIONS IN FOOD	
T. Kairaliyeva, N. Mucic, J. Katona, E.V. Aksenenko, V.I. Kovalchuk, A.V. Makievski, V.B. Fainerman, S.B. Aidarova, <u>R. Miller</u>	2
BIOPOLYMERS AS VEHICLES FOR DELIVERING INNOVATIVE FUNCTIONALITIES IN FOOD SYSTEMS	
Costas G. Biliaderis	4
PROCESS SIMULATION IS AN ESSENTIAL TOOL IN PRODUCT DEVELOPMENT	
<u>Zivko Nikolov</u> , Laura Soto-Sierra	5
INNOVATING WITH BIOACTIVES FROM BRASSICA BYPRODUCTS - THE SPIN-OFF EXPERIENCE	
<u>Diego A. Moreno</u> , Raúl Domínguez-Perles, Paula García-Ibañez, Ángel Abellán-Victorio, Micaela Carvajal, Cristina García-Viguera.....	6
FROM FOOD TO SAFE FOOD: PROBLEMS AND CHALLENGES IN NEW PRODUCT DEVELOPMENT	
<u>Peter Raspor</u>	8
APPLICATION OF SUPERCRITICAL CARBON DIOXIDE FOR DRYING OF FRUITS AND VEGETABLES – SENSORY AND FOOD SAFETY PERSPECTIVES	
Nikola Tomić, Sara Spilimbergo, Gerard Hofland, Andreja Rajković	9
CHALLENGES IN SUGAR PRODUCTION - FOOD SAFETY MANAGEMENT	
<u>Biljana Bogdanović</u> , Branislav Bogdanović.....	12
GINGER ESSENTIAL OIL IMPROVES QUALITY OF COOKED PORK	
<u>Branislav V. Šojić</u> , Vladimir M. Tomović, Branimir M. Pavlič, Predrag M. Ikonić, Marija R. Jokanović, Maja Đ. Ivić, Snežana B. Škaljac	13
EFFECT OF WILD OREGANO ESSENTIAL OIL ON LIPID OXIDATION IN MARINATED PORK CHOPS	
<u>Maja Đ. Ivić</u> , Vladimir M. Tomović, Marija R. Jokanović, Snežana B. Škaljac, Branislav V. Šojić.....	14
THE EFFECT OF GENOTYPE (G), GROWING ENVIRONMENT (E), AND THEIR INTERACTION (G x E) ON THE CHEMICAL COMPOSITION OF WHEAT BRAN	
<u>Ankica Kondić-Špika</u> , Sanja Mikic, Dragana Trkulja, Novica Mladenov, Nada Grahovac, Zvonimir Sakač, Saša Krstović, Nikola Hristov	15



EXPERIMENTAL PRODUCTION OF HEAT-ACID COAGULATING CHEESE WITH ADDITION OF PLUM	
<u>Emina Kadrić</u> , Zlatan Sarić	17
LEAD CONTENT IN THE MEAT OF SAANEN GOAT MALE KIDS FROM VOJVODINA (NORTHERN SERBIA)	
<u>Vladimir M. Tomović</u> , Marija R. Jokanović, Branislav V. Šojić, Snežana B. Škaljac, Milana M. Lazović, Ivana M. Vasiljević, Igor B. Tomašević, Ivana R. Nikolić, Dragan D. Vujadinović, Mila S. Tomović	18
ANTIOXIDANT POTENTIAL AND SENSORY QUALITY OF NEW GREEN WALNUT LIQUEUR	
<u>Sonja P. Veljović</u> , Marija P. Petrović, Stanislava Ž. Gorjanović, Maja M. Natić, Predrag V. Vukosavljević	19
ORGANOCHLORINE PESTICIDES IN RAW MEAT ON THE SERBIAN MARKET	
<u>Brankica Kartalović</u> , Nikolina Novakov, Željko Mihaljev, Jelena Petrović, Jelena Babić, Krešimir Mastanjević	20
DEVELOPMENT OF NEW IN VITRO COLORIMETRIC MTT ASSAY FOR HIGH-THROUGHPUT SCREENING OF ANTI-YEAST ACTIVITY OF PLANT-DERIVED PRESERVATIVE CANDIDATES IN AN ORANGE JUICE FOOD MODEL	
<u>Jan Stas</u> , Marketa Houdkova, Jan Banout, Ladislav Kokoska	22
DISCRIMINANT ANALYSIS OF CHEMICAL AND ANTIOXIDANT PROPERTIES OF <i>Capsicum annuum</i> CULTIVATED UNDER DIFFERENT CONDITIONS	
Milica Ž. Karadžić Banjac, Strahinja Z. Kovačević, Žarko M. Ilin, Boris D. Adamović, Aleksandra N. Tepić Horecki, Zdravko M. Šumić, Anita S. Vakula, Lidija R. Jevrić, Sanja O. Podunavac-Kuzmanović	23
EFFECT OF STARTER CULTURE (<i>STAPHYLOCOCCUS XYLOSUS</i>) ADDITION ON COLOUR CHARACTERISTICS OF DRY FERMENTED SAUSAGE	
<u>Snežana B. Škaljac</u> , Marija R. Jokanović, Vladimir M. Tomović, Maja Đ. Ivić, Branislav V. Šojić, Tatjana A. Peulić, Predrag M. Ikonić, Natalija R. Džinić, Ljiljana S. Petrović	24
THE EFFECT OF FREEZING AND FROZEN STORAGE ON THE CALORIMETRIC PROPERTIES OF LIQUID EGG PRODUCTS	
<u>Karina I. Hidas</u> , Csaba Németh, Anna Visy, Adrienn Tóth, László Friedrich, Ildikó Cs. NyulasZeke.....	25
EFFECT OF HYDROCOLLOIDS ON THE RHEOLOGICAL BEHAVIOR OF YEAST RAISED DOUGH	
Zhour Sabri, Anikó Kovács, <u>Katalin Badakné Kerti</u>	27



EFFECT OF SUGAR REDUCTION AND SUBSTITUTION ON POUND CAKE	
<u>Anikó Kovács</u> , Katalin Badakné Kerti, László Somogyi	28
THE ANTIOXIDANT ACTIVITY AND COMPOSITION OF THE PHENOLICS FROM NON-GROUND NETTLE (<i>Urtica dioica</i> L.) SEEDS EXTRACTED BY DISTILLED AND TAP WATER	
<u>Jelena S. Mitrović</u> , Nada Č. Nikolić, Ivana T. Karabegović, Miodrag M. Lazić, Ljubiša B. Nikolić	29
APPLICATION OF ARTIFICIAL NEURAL NETWORK FOR OPTIMIZATION OF MICROWAVE-ASSISTED EXTRACTION (MAE) OF DEFATTED WHEAT GERM PHENOLIC ANTIOXIDANTS	
Nemanja Bojanić, Nemanja Teslić, Dušan Rakić, Aleksandar Takači, Zoran Zeković, Aleksandar Fišteš, Marija Bodroža-Solarov, Branimir Pavlić	30
RHEOLOGICAL, TEXTURAL AND SENSORY PROPERTIES OF HUMMUS SPREAD DEPENDING ON THE TECHNOLOGICAL PARAMETERS	
<u>Ivana Nikolić</u> , Milena Subotić, Ljubica Dokić, Aleksandar Takači, Zita Šereš, Dragana ŠoronjaSimović, Nikola Maravić	32
SUSCEPTIBILITY OF REFERENCE MICROBIAL STRAINS TO CHOKEBERRY POMACE EXTRACT	
<u>Aleksandra, S. Ranitović</u> , Dragoljub, D. Cvetković, Siniša, L. Markov, Vesna T. Tumbas Šaponjac, Jelena J. Vulić	33
COMPUTER VISION SYSTEM AS RAPID TOOL FOR VOLUME INSPECTION OF POGÁCSA	
<u>Hanieh Amani</u> , László Baranyai, Katalin Badak-Kerti	34
EVALUATION OF IN VITRO GROWTH-INHIBITORY EFFECT OF SPICE ESSENTIAL OILS AND SUPERCRITICAL CARBON DIOXIDE EXTRACTS ON FOOD PATHOGENIC BACTERIA IN LIQUID AND VAPOR PHASE USING BROTH MICRODILUTION VOLATILIZATION METHOD	
<u>Kateřina Vihanová</u> , Markéta Houdková, Trinop Promgool, Ondřej Horák, Somdej Kanokmedhakul, Ladislav Kokoška.....	36
THE POSSIBILITY OF USING EXTRUDED SUGAR BEET PULP FOR THE PRODUCTION OF COOKIES, FROM THE ASPECT OF MICROBIOLOGICAL PROFILE	
Jovana S. Petrović, Sunčica D. Kocić-Tanackov, Biljana S. Pajin, Ivana S. Lončarević, Aleksandar Z. Fišteš, Nemanja Đ. Bojanić, Jelena D. Pejin	37



QUALITY OF FERMENTED MILK PRODUCTS OBTAINED BY CONCENTRATED KOMBUCHA INOCULUM

Mirela D. Ilicic, Spasenija D. Milanovic, Marijana Đ. Carić, Katarina G. Kanurić, Vladimir R. Vukić, Dajana V. Vukić 38

STABILITY OF CAROTENOIDS IN PUMPKIN DURING THE DIFFERENT HEAT TREATMENTS

Dragana M. Paunović, Jovana M. Marković, Evica R. Ivanović, Biljana B. Rabrenović, Saša M. Despotović, Nebojša R. Banjac 39

TECHNOLOGY AND QUALITY OF FRESH CHEESE PRODUCED BY KOMBUCHA INOCULUM

Mirela D. Iličić, Katarina G. Kanurić, Vladimir R. Vukić, Dajana V. Vukić, Maja R. Bjekić..... 41

THE QUALITY OF SUNFLOWER OIL AND PALM OLEIN DURING THE PRODUCTION OF FRENCH FRIES

Dragana M. Paunović, Mirjana A. Demin, Tanja S. Petrović, Jovana M. Marković, Vesna B. Vujasinović, Biljana B. Rabrenović 42

IMMOBILISATION OF LACTOBACILLUS RHAMNOSUS IN COMBINED POLYVINYL ALCOHOL/CALCIUM ALGINATE MATRIX FOR L-(+)LACTIC ACID FERMENTATION

Miloš S. Radosavljević, Steva M. Lević, Jelena D. Pejin, Miona M. Belović, Milana Pribić, Sunčica D. Kocić-Tanackov, Aleksandra P. Djukić-Vuković, Ljiljana V. Mojović, Viktor A. Nedović 43

TRITICALE AS POTENTIAL BREWING RAW MATERIAL

Milana M. Pribić, Jelena D. Pejin, Sunčica D. Kocić-Tanackov, Miloš S. Radosavljević, Aleksandra P. Đukić-Vuković, Ljiljana V. Mojović..... 44

VERY HIGH GRAVITY FERMENTATION OF SUGAR BEET THICK JUICE BY *SACCHAROMYCES CEREVISIAE* IMMOBILIZED IN COMBINED ALGINATE-MAIZE STEM TISSUE BEADS

Vesna M. Vučurović, Vladimir S. Puškaš, Uroš D. Miljić, Jelena S. Filipović..... 46

TEXTURE CHARACTERISTICS OF DRY FERMENTED SAUSAGE AFFECTED BY DRYING PROCESS CONDITIONS

Marija R. Jokanović, Vladimir M. Tomović, Snežana B. Škaljac, Branislav V. Šojić, Predrag M. Ikonić, Tatjana A. Peulić, Maja Đ. Ivić, Nedim M. Čučević 47

POYPHENOL PROFILE OF HONEYDEW AND PLOLYFLORAL HONEY FROM NORTHER PART OF MONTENEGRO	
Milica M. Nešović, Uroš M. Gašić, <u>Živoslav Lj. Tešić</u>	48
ELECTROCHEMICAL STUDY OF VITAMIN B1 BY MEANS OF ADSORPTIVE STRIPPING CHRONOPOTENTIOMETRY	
<u>Tanja Ž. Brezo-Borjan</u> ¹ , Zvonimir J. Suturović, Snežana Ž. Kravić, Zorica S. Stojanović, Ana D. Đurović, Jovana J. Kos	50
INSTANT COFFEE ENRICHED WITH DIETARY FIBRE	
<u>Blaž Ferjančič</u> , Nina Petrovčič, Mojca Korošec, Nada Vahčić, Jasna Bertoncelj	51
EFFECT OF NITROGEN SOURCES ON BIOBACTERICIDE PRODUCTION BY <i>BACILLUS SUBTILIS</i>	
<u>Ida E. Zahović</u> , Zorana Z. Rončević, Jovana J. Đuran, Ivana Ž. Mitrović, Jovana A. Grahovac, Siniša N. Dodić	52
ANTILISTERIAL EFFECTS OF AUTOCHTHONOUS LACTOCOCCI IN CHEESES FROM ULTRAFILTERED MILK	
Marina P. Ivanović, <u>Zorica T. Radulović</u> , Milica M. Mirković, Ana V. Radulović, Jelena B. Miočinović, Dušanka D. Paunović, Nemanja L. Mirković	53
PRODUCTION OF TEXTURIZED ROUND-BEEF SNACK USING FREEZE AND MICROWAVE PRE-DRYING METHODS	
Anıl Bodruk, Feyza Elmas, Mehmet Koç, Fatma Meltem Serdaroğlu, Nurcan Koca, Figen Kaymak Ertekin.....	55
<i>IN VITRO</i> BIOLOGICAL ACTIVITY OF OILSEED MEAL PROTEIN HYDROLYSATES	
<u>Kristina Radošević</u> , Marijan Logarušić, Ivana Radojčić Redovniković, Marina Cvjetko Bubalo, Igor Slivac, Višnja Gaurina Srček	56
ANTIOXIDATIVE AND ANTICANCER EFFECT OF FLAXSEED PROTEIN HYDROLYSATES	
<u>Marina Cvjetko Bubalo</u> , Marjan Logarušić, Kristina Radošević, Igor Slivac, Višnja Gaurina Srček	57
GREEN BIOREFINERY FOR THE ENHANCEMENT OF BIOACTIVITY OF PECTIN FROM SUGAR BEET EXTRACTION WASTE	
Maja M. Milošević, Milica N. Perović, Tatjana R. Đorđević, <u>Mirjana G. Antov</u>	58



PHYSICAL AND NUTRITIONAL PROPERTIES OF EXTRUDED SNACKS WITH BREWER'S PROCESSING BY-PRODUCT ADDITION	
<u>Jovana D. Delić</u> , Predrag M. Ikonić, Marija R. Jokanović, Tatjana A. Peulić, Vojislav V. Banjac, Radmilo R. Čolović, Strahinja Ž. Vidosavljević.....	60
USE OF SAGE EXTRACT FOR GROWTH CONTROL OF <i>E. coli</i> IN MINCED PORK	
Bojana R. Danilović, <u>Natalija G. Đorđević</u> , Aleksandar D. Veličković, Dragiša S. Savić.....	61
EFFECTS OF DIFFERENT MARINATION PROCESSES ON DRYING OF TURKEY BREAST MEAT	
<u>Feyza Elmas</u> , Anıl Bodruk, <u>Mehmet Koç</u> , Fatma Meltem Serdaroğlu, Nurcan Koca, Figen Kaymak Ertekin.....	62
EFFECTS OF MICROWAVE DRYING PRIOR TO PUFF DRYING ON THE PHYSICAL QUALITY CHARACTERISTICS OF DRIED REDUCED- FAT WHITE CHEESE	
<u>Özgün Köprüalan</u> ¹ , Şeyma Arıkaya, Mehmet Koç, Nurcan Koca, Figen Kaymak-Ertekin	63
FACTORS THAT INFLUENCE DETECTION OF HUMAN NOROVIRUS IN RASPBERRIES	
Dragoslava D. Radin	65
PREPARATION OF ZEIN NANOPARTICLES AND SELF-STANDING FILM	
<u>Ljiljana M. Spasojević</u> ¹ , Jaroslav M. Katona, Sandra Đ. Bučko, Nejra F. Omerović, Slavica M. Savić, Jadranka L. Fraj, Jelena R. Milinković Budinčić, Lidija B. Petrović .	66
THE RELATION OF SHAPE AND MOISTURE CONTENT OF KASHAR CHEESE PIECES WITH PRE-DRYING METHODS FOR THE PRODUCTION OF DRIED CHEESE	
Şeyma Arıkaya, Özgün Köprüalan, <u>Nurcan Koca</u> ¹ , Mehmet Koç, Figen Kaymak-Ertekin	67
EFFECTS OF EXPLOSIVE PUFF DRYING AND FREEZE DRYING ON QUALITY CHARACTERISTICS OF HIGH NUTRITIVE PUMPKIN CHIPS	
Özgül Altay, Özgün Köprüalan, Anıl Bodruk, <u>Figen Kaymak Ertekin</u>	68
ENCAPSULATION EFFICIENCY OF CARVACROL IN ZEIN/ROSIN NANOPARTICLES	
<u>Danijela Z. Rajić</u> ¹ , Ljiljana M. Spasojević, Jaroslav M. Katona, Sandra Đ. Bučko, Jadranka L. Fraj, Jelena R. Milinković Budinčić, Lidija B. Petrović, Ljiljana Popović, Marko M. Ivanović, Altnay Sharipova, Saule Aidarova.....	70

THE INFLUENCE OF THE FREEZING RATE ON THE PHYSICO- CHEMICAL PROPERTIES OF PORK MEAT (<i>M. Longissimus dorsi</i>)	
<u>Danica M. Savanović¹</u> , Radoslav D. Grujić, Jovo M. Savanović.....	71
RHEOLOGICAL PROPERTIES OF VEGETEABLE CREAMS INCLUDING DIFFERENT TEXTURIZING AGENTS	
Bence Halasi, Diána Furulyás, Mónika Stéger-Máté, <u>Beatrix Szabó-Nótin</u>	73
CREATION OF INNOVATIVE MEAT PRODUCTS BY RE-USE OF SPENT BARLEY	
Korzeniowska M.	75
OIL AND PROTEIN CONTENTS IN RAPESEED (<i>BRASSICA NAPUS</i> L.) AS A FUNCTION OF ENVIRONMENTAL CONDITIONS DURING SEED FILLING PERIOD	
<u>Ana Marjanović Jeromela</u> , Nada Grahovac, Vladimir Šarac, Vladimir Aćin, Milan Mirosavljević, Ankica Kondić Špika	76
PRODUCTION AND EXTRACTION OF ANTIMICROBIAL COMPOUNDS EFFECTIVE AGAINST PHYTOPATHOGENIC <i>XANTHOMONAS</i> SPP.	
Ivana S. Pajčin ¹ , Jovana A. Grahovac, Vanja R. Vlajkov, Zorana Z. Rončević, Mila S. Grahovac, Aleksandar I. Jokić, Siniša N. Dodić	77
SENSORY AND SOME CHEMICAL CHARACTERISTICS OF OLIVE OILS PRODUCED IN LYBIA	
<u>Vesna B. Vujasinović</u> , Biljana B. Rabrenović, Seddiq M. A. Esalami, Sanja B. Dimić, Dragan V. Tešanović, Maja V. Banjac.....	79
SIMULTANEOUS ULTRASONICATION AND ENZYMATIC SACCHARIFICATION FOR FERMENTABLE SUGAR PRODUCTION USING <i>CHLORELLA VULGARIS</i>	
<u>Sibel Uzuner</u> , Sebnem Kurhan, Gulsun Akdemir Evrendilek.....	80
SEED SURFACE DISINFECTION METHODS: CURRENT APPLICATIONS AND NEW DIRECTIONS	
Bahar Atmaca, Nurullah Bulut, Sibel Uzuner, <u>Gülsün Akdemir Evrendilek</u>	81
BACTERIAL ADHESION ON KITCHEN SURFACES	
Davor Kovačević, Anamarija Zore, Mojca Jevšnik, Anže Abram, Valentina Runko, Irena Slišković, Katja Bezek, Peter Raspor, <u>Klemen Bohinc</u>	82
MICROWAVE-ASSISTED DILUTE ACID PRETREATMENT FOR IMPROVING PRESSURIZED FERMENTABLE SUGAR EXTRACTION FROM HAZELNUT SHELLS	
Sibel Uzuner	84



FATTY ACIDS PROFILE OF RED RASPBERRY (<i>RUBUS IDAEUS</i> L.) SEED OIL: OPTIMIZATION OF SUPERCRITICAL FLUID EXTRACTION	
<u>Boško Marić</u> , Biljana Abramović, Branimir Pavlić, Lidija Peić-Tukuljac, Nebojša Ilić, Dušica Čolović, Marija Bodroža-Solarov, Zoran Zeković, Nemanja Teslić	85
COMBINATIONS OF HIGH PRESSURE PROCESSING AND HEAT TREATMENT: SAFETY AND PROTEIN STRUCTURE OF LIQUID EGG WHITE	
<u>Adrienn Tóth</u> , Csaba Németh, Réka Juhász, József Surányi, Tamás Csurka, Klára Pásztor-Huszár, László Friedrich	86
MOLECULAR IDENTIFICATION OF AFLATOXIN BIOSYNTHESIS GENES IN <i>ASPERGILLUS</i> SPECIES	
<u>Nataša Ž. Čurčić</u> , Jelena A. Krulj, Aleksandra S. Bočarov Stančić, Jelena N. Perović, Marija I. Bodroža Solarov	87
XENOBIOTICS IN <i>LACTUCA SATIVA</i> L.	
<u>Edward Muntean</u> , Marcel Duda, Nicoleta Muntean.....	89
INFLUENCE OF pH VALUE OF CEMENT-BASED SUBSTRATES ON VIABILITY OF BIOCALCIFYING BACTERIA <i>SPOROSARCINA PASTEURII</i> DSM 33	
<u>Olja Lj. Šovljanski</u> , Ana M. Vidaković, Snežana B. Vučetić, Bojan B. Miljević, Jonjaua G. Ranogajec, Siniša L. Markov	90
STUDY THE EFFECT OF DEEP FRYING IN OIL CONTENT CHANGES OF FATTY ACIDS FOR SUNFLOWER OIL AND COTTON	
Mahmoud Dahhan	91
SUPERCRITICAL CARBON DIOXIDE EXTRACTION OF CAROTENOIDS FROM <i>PHAEODACTYLUM TRICORNUTUM</i>	
<u>Nadiia Khakimova</u> , Michail Syrpas, Petras Rimantas Venskutonis.....	92
EFFECT OF FAT CONTENT ON AROMA RELEASE OF FLAVOURED PUDDINGS	
<u>Ceyda Dadalı</u> , Yeşim Elmacı	94
USE OF LEGUMES IN GLUTEN-FREE PASTA PRODUCTION	
<u>Ceyda, Dadalı</u> , Yeşim, Elmacı.....	95
THE INFLUENCE OF ROASTING TEMPERATURE ON THE PHYSICAL PROPERTIES OF ARABICA AND ROBUSTA COFFEE	
<u>Božana Odžaković</u> , Natalija Džinić, Marija Jokanović, Slavica Grujić.....	96



THE TECHNOLOGICAL QUALITY OF SUGAR BEET IN VOJVODINA DURING 2016-2018	
<u>Lidija E. Peić Tukuljac</u> , Rada C. Jevtić-Mučibabić, Jovana S. Kojić, Zita I. Šereš, Jelena A. Krulj, Nikola R. Maravić, Marija I. Bodroža Solarov.....	98
PROPERTIES OF BIOPOLYMER FILM WITH ESSENTIAL OILS	
<u>Sandra N. Bulut</u> , Senka Z. Popović, Nevena M. Hromiš, Danijela Z. Šuput, Vera L. Lazić	99
MECHANICAL PROPERTIES OF PUMPKIN OIL CAKE BASED COMPOSITE BIOPOLYMER FILMS	
<u>Nevena M. Hromiš</u> , Senka Z. Popović, Sandra N. Bulut, Danijela Z. Šuput, Vera L. Lazić	100
QUALITY CHARACTERISTICS OF STRAWBERRY COATED WITH QUINCE SEED MUCILAGE AS EDIBLE COATING	
Ali Kozlu, <u>Yeşim Elmacı</u>	102
IMPACT OF AFLATOXIN B ₁ ON THE QUALITY OF STORED SPELT WHEAT	
<u>Jelena A. Krulj</u> , Jovana S. Kojić, Nataša Ž. Ćurčić, Lidija E. Peić Tukuljac, Jelena N. Perović, Marija I. Bodroža-Solarov	103
BETAINE CONTENT IN BUCKWHEAT ENRICHED WHOLEGRAIN WHEAT PASTA	
<u>Jelena N. Perović</u> , Jovana S. Kojić, Dubravka J. Škrobot, Jelena A. Krulj, Lidija E. Peić Tukuljac, Nebojša M. Ilić, Marija I. Bodroža Solarov	104
OPTIMIZATION OF MICROWAVE ASSISTED ENZYMATIC EXTRACTION OF STEVIOL GLYCOSIDES AND PHENOLIC COMPOUNDS FROM STEVIA LEAF	
<u>Ahmet Görgüç</u> , Esra Gençdağ, Fatih Mehmet Yılmaz.....	106
HYPOGLYCAEMIC AND ANTIHYPERGLYCAEMIC ACTIVITY OF NEW DRUG FORMULATION OF BASIL EXTRACTS	
<u>Branislava D. Teofilović</u> , Aleksandar L. Rašković, Nebojša P. Stilinović, Svetlana S. Goločorbin Kon, Momir M. Mikov.....	107
PHENOLICS CONTENT AND ANTIOXIDANT CAPACITY OF BERRY NECTARS	
<u>Tijana D. Ilić</u> , Anja N. Vujčić, Nevena M. Dabetić, Vanja M. Todorović, Bojana B. Vidović	108



APPLICATION OF CORRELATIVE ANALYTICAL TECHNIQUES FOR THE DETECTION OF HEAT TREATMENT OF HONEY	
<u>Zsanett Bodor</u> , Csilla Benedek, Tímea Kaszab, John-Lewis Zinia Zaukuu, Zoltan Kovacs	109
SUGAR BEET MOLASSES QUALITY ENHANCEMENT THROUGH TREATMENT WITH MODIFIED SUGAR BEET PULP	
Miljana Z. Djordjević, <u>Zita I. Šereš</u> , Nikola R. Maravić, Marijana Z. Djordjević, Dragana M. Šoronja-Simović, Cecilia Hodur, Naoufal Bellahsen	112
PASTING PROPERTIES OF SNACK PRODUCTS FROM SPELT WHOLEGRAIN FLOUR WITH ADDED BETAINE	
<u>Jovana S. Kojić</u> , Miroslav Hadnađev, Bojana Kokić, Jelena Krulj, Nebojša Ilić, Jelena Perović, Marija Bodroža Solarov	113
PREFERENCES TOWARDS SWEETS AND SALTY SNACK CONSUMPTION AMONG YOUNG POPULATION IN RELATION TO BMI	
<u>Dragana M. Šoronja-Simović</u> , Zita I. Šereš, Ferenc E. Kiš, Nikola R. Maravić, Biljana S. Pajin, Miljana Z. Djordjević, Žana Šaranović	114
SPECTROSCOPY AS A RAPID METHOD TO DETECT PAPRIKA POWDER ADULTERATION WITH CORN FLOUR	
<u>John-Lewis Z. Zaukuu</u> , Zsanett Bodor, Zoltan Gillay, Flora Vitalis, Viktoria Zsom-Muha, Zoltan Kovacs	115
THE USE OF ADVANCED CONTROL SYSTEMS IN FOOD PROCESSING OPERATIONS	
Safiye Nur Dirim	116
THE USE OF SPRAY DRYING AND AGGLOMERATION METHODS TO OBTAIN SPINACH JUICE POWDER AND AGGLOMERATES	
<u>Hira Yüksel</u> , Safiye Nur Dirim	118
PRODUCTION OF INSTANT LIQUORICE (<i>GLYCYRRHIZA GLABRA</i>) ROOT SHERBET	
<u>Bülent Başığit</u> , İbrahim Hayoğlu, Sara Bulut, Gülbahar Akyar	119
PHENOLIC FRACTIONS, ANTIOXIDANT AND ANTIDIABETIC POTENTIALS OF <i>QUERCUS INFECTORIA</i> GALL	
Bülent Başığit, Şehriban Yüksekaya, Ümran Cansu, <u>Hidayet Sağlam</u> , Mehmet Karaaslan	120



OXIDATIVE STABILIZATION OF COLD-PRESSED SUNFLOWER OIL BY CARAWAY (*CARUM CARVI* L.) ESSENTIAL OIL

Aleksandra S. Stojićević, Biljana B. Rabrenović, Vladislav Rac, Vladimir Šarac, Tatjana M. Šolević Knudsen, Mališa P. Antić 121

ASSESSMENT OF ANTIMICROBIAL ACTIVITY OF POMEGRANATE PEEL AND DETERMINATION OF ITS INDIVIDUAL PHENOLIC COMPOUNDS BY USING LC-ESI-MS/MS

Seba Al-Sataf, Bülent Başığit, Ümran Cansu, Hidayet Sağlam, Asliye Karaaslan, Mehmet Karaaslan..... 123

THE EFFICACY OF CONTINUOUS SYSTEM ULTRAVIOLET LIGHT TREATMENT ON THE INHIBITION OF MOLDS INOCULATED TO SURFACES OF YOGHURT WITH SURFACE CREAM

Gülten Tiryaki Gündüz, Ayça Korkmaz, Duygu Kışla, Nurcan Koca, Müge Urgan Öztürk, Sevcan Ünlütürk 124

Keywords: ultraviolet light, surface decontamination, mould inhibition, yoghurt 125

GUAR-XANTHAN EFFECT ON STARCH BIOPOLYMER FILMS PROPERTIES

Danijela Z. Šuput, Senka Z. Popović, Sandra N. Bulut, Nevena M. Hromiš, Vera L. Lazić 125

INNOVATIVE PROTOTYPE OF VACUUM DRYER FOR FRUIT DRYING

Anita S. Vakula, Zdravko M. Šumić, Branimir M. Pavlić, Marija R. Jokanović, Aleksandra N. Tepić Horecki 126

PHYSICO-CHEMICAL PROPERTIES OF VACUUM DRIED APRICOT: INFLUENCE OF DIFFERENT PACKAGING MATERIALS

Aleksandra N. Tepić Horecki, Vera L. Lazić, Senka Z. Popović, Nevena M. Hromiš, Anita S. Vakula, Danijela Z. Šuput, Sandra N. Bulut, Tatjana N. Daničić, Branimir M. Pavlić, Zdravko M. Šumić..... 128

SENSORY CHARACTERISTICS OF FERMENTED CABBAGE OBTAINED ON DIFFERENT CONDITIONS OF FERMENTATION

Zdravko M. Šumić, Mirna V. Drašković Berger, Anita S. Vakula, Marija R. Jokanović, Biljana R. Cvetković, Branimir M. Pavlić, Aleksandra N. Tepić Horecki 129

PREPARATION AND CHARACTERIZATION OF FIBROIN BASED pH SENSITIVE FILMS

Andrea Rač, Nejra Omerović, Ivana Podunavac, Branimir Bajac, Jaroslav Katona..... 130



THE EFFECT OF REPLACING BEEF FAT WITH OLIVE OIL AND PRODUCTION METHODS ON OXIDATIVE CHANGES IN FERMENTED SAUSAGE (SUCUK)	
<u>Aslı Zungur Bastioğlu</u> , Berker Nacak, Meltem Serdaroğlu	131
COLOR INVESTIGATION OF COLD PRESSED OILS OF THE LATEST CONFECTIONARY SUNFLOWER HYBRIDS	
<u>Ranko S. Romanić</u> , Tanja Z. Lužaić, Nada L. Grahovac, Nada T. Hladni, Snežana Ž. Kravić, Zorica S. Stojanović	132
INHIBITION OF SALMONELLA ENTERITIDIS GROWTH AND STORAGE STABILITY IN CHICKEN MEAT TREATED WITH BASIL AND ROSEMARY ESSENTIAL OILS ALONE OR IN COMBINATION	
<u>Zorica Z. Stojanović-Radić</u> , Milica Pejčić, Marija Jokanović, Maja Ivić, Branislav Šojić, Snežana Škaljac	134
TOTAL QUALITY INDEX APPROACH IN THE CULTIVATION OF OYSTER MUSHROOM (<i>PLEUROTUS OSTREATUS</i>) GROWN IN CELLULOSE PLANT WASTE	
<u>Ana G. Doroški</u> , Ilija V. Đekić, Jovana Đ. Vunduk, Miomir P. Nikšić, Anita S. Klaus	135
PERCEPTION OF SWEETNES INTENSITY AMONG STUDENTS FROM TWO COUNTRIES	
<u>Mojca Korošec</u> , Jasna Bertoneclj, Elena Molac, Dragana Šoronja-Simović, Biljana Pajin, Zita Šereš	136
THE INFLUENCE OF FUNCTIONAL INGREDIENTS ON THE TECHNOLOGICAL AND QUALITY PARAMETERS OF WHEAT BREAD	
Ana Griz, Jana Zahorec, Meta Sterniša, Alenka Levart, Zita Šereš, Dragana ŠoronjaSimović, <u>Sonja Smole Možina</u>	137
HORSERADISH LYOPHILISATE AS BREAD INGREDIENT - EFFECT ON RHEOLOGICAL AND FERMENTATION PROPERTIES	
<u>Meta Sterniša</u> , Matea Radešić, Jana Zahorec, Franz Bucar, Zita Šereš, Dragana ŠoronjaSimović, <u>Sonja Smole Možina</u>	138
PHYSICAL AND MECHANICAL PROPERTIES OF DIFFERENT PROTEINBASED EDIBLE FILMS	
<u>Miroslav Hadnađev</u> , Milan Marčeta, Nataša Jovanović-Lješković, Veljko Krstonošić, Tamara Dapčević-Hadnađev	140
pH VALUE, TEMPERATURE AND COLOR PARAMETERS L*, a*, b* EVALUATION IN RAW PORK DURING 72 HOURS POST-MORTEM	
<u>Goran Vučić</u> , Radoslav Grujić, Ladislav Vasilišin	141



EXTRACTION OF BIOPOLYSACCHARIDES FROM MARINE BIOMASS USING ALTERNATIVE SOLVENTS	
<u>Naiara Fernández Hernández</u> , Maha Abdallah, Ingeborg Heuschkel, Pavel Gurikov, Maria R. Bronze, Ana A. Matias.....	142
EXTRACTION OF POLYPHENOLS FROM OILSEED CAKES BY SUBCRITICAL WATER	
<u>Nataša M. Nastić</u> , Biljana S. Pajin, Giorgia Spigno, Jaroslava V. Švarc-Gajić, Ivana S. Lončarević.....	143
SUBCRITICAL WATER EXTRACTION OF PHENOLIC COMPOUNDS FROM COCOA BEAN HULLS	
Nataša M. Nastić, Biljana S. Pajin, Joachim Venus, <u>Jaroslava V. Švarc-Gajić</u> , Ivana S. Lončarević.....	145
MICROBIOLOGICAL STABILITY OF COOKED SAUSAGES AS FUNCTION OF REPLACEMENT INORGANIC SALTS WITH NATURAL ADDITIVES	
<u>Dragan P. Vujadinović</u> , Milan S. Vukić, Vladimir M. Tomović, Ardea Ž. Milidrag, Marko M. Ivanović.....	146
INFLUENCE OF DIFFERENT FOOD BY-PRODUCTS ON RHEOLOGICAL BEHAVIOR OF WHOLEGRAIN WHEAT DOUGH	
<u>Aleksandra M. Torbica</u> , Jelena M. Tomić, Elizabet P. Janić Hajnal.....	147
THE EFFECT OF DRYING TREATMENT ON THE RETENTION OF ANTIOXIDATIVE PROPERTIES OF STRAWBERRY	
<u>Snežana M. Stevanović</u> , Tanja S. Petrović, Mirjana B. Pešić.....	148
CHARACTERISATION OF FRUIT WINE PRODUCED FROM QUINCE (<i>CYDONIA OBLONGA</i>) CONCENTRATED JUICE	
Vladimir S. Puškaš, Uroš D. Miljić, <u>Jovana J. Đuran</u> , Vesna M. Vučurović.....	150
DETERMINATION OF BISPENOL A IN BABY BOTTLES AND DRINKING CONTAINERS BY HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY	
<u>Gorica Č. Vuković</u> , Marina R. Đukić, Vojislava P. Bursić, Tijana N. Stojanović, Aleksandra P. Petrović, Dušan M. Marinković, Bojan B. Konstantinović.....	151
NOVEL RAPID SENSORY PROFILING METHOD AS A TOOL FOR DIFFERENTIATION BETWEEN TRADITIONAL AND COMMERCIAL DRY FERMENTED SAUSAGES	
<u>Dubravka J. Škrobot</u> , Jelena M. Tomić, Predrag M. Ikonić, Tamara R. Dapčević Hadnađev, Alena M. Tomšik, Miroslav S. Hadnađev, Jovana D. Delić.....	152



TESTING 3D PRINTED STATIC MIXER WITH IMPROVED GEOMETRY	
<u>Igor L. Gáspár</u> , Svetlana S. Popović.....	154
PHYSICOCHEMICAL PROPERTIES OF OLIVE OIL OLEOGELS STRUCTURED WITH MONOGLYCERIDES	
Alexandros Soniadis, <u>Costas G. Biliaderis</u> , Konstantina Zampouni, Thomas Moschakis, Athina Lazaridou, Eugenios Katsanidis	155
IMPROVEMENT OF THE NUTRITIONAL PROFILE OF GREEK SAUSAGES BY ANIMAL FAT AND NaCl SUBSTITUTION	
Konstantina Zampouni, <u>Costas G. Biliaderis</u> , Alexandros Soniadis, Athina Lazaridou, Thomas Moschakis, Eugenios Katsanidis	156
SPOILAGE BACTERIA <i>PSEUDOMONAS</i> – PRODUCTION OF HYDROLYTIC ENZYMES AND ABILITY TO GROW AT 5 °C	
Meta Sterniša, Mihael Čargo, <u>Sonja Smole Možina</u>	157
MATERIALS DESIGN AND APPLICATIONS	159
BIOLOGICAL OILS AS A PLATFORM FOR SUSTAINABLE DEVELOPMENT OF POLYMERIC MATERIALS	
Zoran S. Petrović	160
POLYCARBONATE-BASED POLYURETHANES AND POLYURETHANE NANOCOMPOSITES	
<u>Milena Špírková</u> , Jelena Pavličević, Jiří Hodan, Sabina Krejčíková, Luďka Machová, Jaroslava Budinski-Simendić	161
FOAMING OF ALKALI ACTIVATED MATERIALS	
<u>Vilma Ducman</u> , Katja Traven, Mark Češnovar, Lidija Korat, Barbara Horvat	162
RAMAN SPECTROSCOPY FOR CHARACTERISATION OF BRONZE OBJECTS IN DIFFERENT ENVIRONMENTS AND ITS PROTECTION SYSTEMS	
Polonca Ropret	163
NANO-MODIFIED BIO-FIBRES FOR ADVANCED CEMENT MORTARS	
Anna-Maria Sigouni, Fotini Kesikidou, Parthena Koltsoy, <u>Maria Stefanidou</u>	165
ZnO/TiO ₂ AND Ag/ZnO/TiO ₂ CATALYSTS FOR DECOLORIZATION OF MIXTURE OF ORGANIC DYES AND COMPARISON OF THEIR EFFICIENCY WITH TiO ₂ , ZnO, TiO ₂ +ZnO, Au/ZnO AND MnO ₂	
Zsigmond J. Papp	166



CRACK SELF-HEALING ABILITY OF BIO-MORTAR

Bojan Miljević, Francesco Lo Monte, Snežana Vučetić, Olja Šovljanski, John Milan van der Bergh, Ivan Ristić, Siniša Markov, Liberato Ferrara, Jonjaua Ranogajec 167

NON-INVASIVE INVESTIGATION OF PAINTING TECHNOLOGY OF PROMINENT 20TH CENTURY PAINTER MIĆA POPOVIĆ

Snežana Vučetić, John Milan van der Bergh, Bojan Miljević, Jonjaua Ranogajec, Bojan Nikolić, Marko Božović, Milica Konstantinović, Ognjen Kovačević, Veljko Džikić... 168

SELF-CLEANING OF HISTORICAL AND MODERN MINERAL MATERIALS – LABORATORY AND IN SITU APPROACHES

Rajko Travica, Radmila Mandić, Marija Tzoutzouli Malešević, Snežana Vučetić, Bojan Miljević, John Milan van der Bergh, Jonjaua Ranogajec..... 170

SYNTHESIS OF EPOXY BASED COATINGS

Ivan Ristić, Radmila Radičević, Milena Marinović-Cincović, Danica Piper, Maja Valčić, Aleksandra Miletić, Vladan Mičić 171

INTERDISCIPLINARY ASPECT OF EDUCATION AND MATERIALS SCIENCE

Nevena Vukić, Natalija Budinski, Zsolt Lavicza, Mirjana Jovičić, Vesna Teofilović, Tamara Erceg, Mlađan Popović 172

THE INFLUENCE OF THE TYPE OF ACTIVATION OF THE MONTMORILLONITE ON THE HYDROLYTIC STABILITY OF UREA-FORMALDEHYDE NANOCOMPOSITE

Milena Čanačević, Marija Kostić, Suzana Samaržija-Jovanović, Vojislav Jovanović, Branka Petković, Gordana Marković, Jaroslava Budinski-Simendić 173

THERMAL PROPERTIES OF AMINE CURED EPOXY HYBRID MATERIALS WITH DIFFERENT CONTENT OF MONTMORILLONITE

Vesna B. Teofilović, Mirjana C. Jovičić, Jelena M. Pavličević, Katalin Mészáros-Szécsényi, Radmila Ž. Radičević, Milena Špirkova, Ayşe Z. Aroğuz..... 174

STRUCTURING OF ENVIRONMENTALLY FRIENDLY TYRES USING SBR ELASTOMER AND COMBINED ACTIVE NANOFILLERS

Jelena Pavličević, Nada Lazić, Milenko Plavšić, Pero Dugić, Milanka Plavšić, Dejan Kojić, Jaroslava Budinski-Simendić 175

THE USE OF MATHEMATICAL MODELING FOR DETERMINATION OF OPTIMAL PMMA/NANO-OXIDE MATERIAL DESIGN

Mirjana C. Jovičić, Jelena M. Pavličević, Bojana B. Ikonić, Predrag S. Kojić, Aleksandar I. Jokić, Dragan D. Govedarica, Katalin Mészáros Szécsényi 176



MEASURING THE DRYING SENSITIVITY OF CLAYS: A REVIEW	
<u>Miloš Vasić</u> , Zagorka Radojević	177
ANTICORROSION ADDITIVES – SPRAY DRYER PRODUCTION AND INFLUENCE OF POST-PRODUCTION TREATMENT ON THE SIZE DISTRIBUTION	
M. Papovic, J. Skrbic, R. Rogovits, T. Sobisch, J. Katona, <u>N. Mucic</u>	178
FUNCTIONAL BIO-BASED MATERIALS IN WOUND DRESSING	
Aleksandra P. Miletić, Ivan S. Ristić, <u>Branka M. Pilić</u>	180
BIOLOGICAL AND ELECTROCATALYTIC APPLICATIONS OF Ag, Au, AND Cu NANOPARTICLES, AND THEIR POLYANILINE BASED COMPOSITES	
<u>Vesna Vodnik</u> , Una Stamenović.....	181
DIELECTRIC CHARACTERIZATION OF ENGINE COOLANTS	
Róbertné V. P. Kovács	182
NON-INVASIVE STUDIES OF EARLY BRONZE AGE POTTERY FRAGMENTS EXAVATED AT THE SITE MEANISTE IN RANUTOVAC, SERBIA	
<u>Maja D. Gajić-Kvašček</u> , Velibor Dj. Andrić, Marija M. Vuksanović, Aleksandar Bulatović	183
MESOPOROUS SILICA – HYDROXYAPATITE COMPOSITES AS CARRIERS OF SOIL NUTRIENTS	
<u>Kristina Živojević</u> , Vladimir Ćirić, Branislav Jović, Nikola Knežević.....	185
RE-SYNTHESIZING CATHODE MATERIAL FROM SPENT LI-ION BATTERIES AND ITS EXAMINATION IN AN AQUEOUS SOLUTION OF NaNO_3	
<u>Jelena. V. Senčanski</u> , Ivana B. Stojković Simatović, Stevan N. Blagojević, MilicaM.Nešović, Milica J. Vujković	186
INFLUENCE OF BRICK CLAY CHARACTERISTICS TO THE QUALITY OF ADOBE CLAY BRICKS	
<u>Milica V. Vasić</u> , Lato L. Pezo, Zagorka M. Radojević	187
INVESTIGATION OF SOLVATOCHROMIC PROPERTIES OF SELECTED NEWLY SYNTHESIZED AZO-DYES DERIVATIVES	
<u>Gorana S. Mrđan</u> , Borko M. Matijević, Jelena Lađarević, Dušan Ž. Mijin, Đendi Đ. Vaštag, Suzana Lj. Apostolov	189
MINERAL BY-PRODUCTS AS ADDITIVES IN NEWLY SYNTHESIZED CEMENT	
<u>Jasmina Nešković</u> , Jonjaua Ranogajec, Milan Trumić, Snežana Vučetić	190



FAR INFRARED RADIATION BIOCERAMIC FIBERS A NEW GENERATION OF FUNCTIONAL TEXTILES	
Amine Haj Taieb	191
PROTIC IONIC LIQUIDS IN CONSERVATION OF THE PAPER HERITAGE ARTEFACTS	
<u>Slobodan B. Gadžurić</u> , Nataša N. Dimitrić, Sanja D. Belić, Aleksandar S. Tot, Jovana J. Panić, Maja A. Karaman, Daniela Korolija-Crkvenjakov, Milan B. Vraneš	192
CORRELATION OF ED-XRF AND ICP-OES METHODS APPLIED IN CHEMICAL CHARACTERIZATION OF CEMENTITOUS MATERIALS	
<u>Nevenka Mijatović</u> , Anja Terzić, Ljiljana Miličić, Dragana Živojinović	194
POSSIBILITY OF CONSTRUCTION MATERIAL PROTECTION IN COASTAL CONDITIONS USING NEW ENVIRONMENTALLY FRIENDLY INHIBITORS	
<u>Đendi Đ. Vaštag</u> , Špiro N. Ivošević, Slobodan B. Gadžurić, Milan B. Vraneš, Tatjana M. Trtić Petrović, Senka Šekularac-Ivošević, Suzana Lj. Apostolov	195
PHOTOCATALYTIC COATING BASED ON ILITE CLAY/TiO ₂ COMPOSITE	
<u>Vojo Jovanov</u> , Vladimir Zečević, Jonjaua Ranogajec, Emilija Fidanchevska.....	196
ADHESION OF BACTERIA ON PROTEIN-TERMINATING POLYELECTROLYTE MULTILAYERS	
Klemen Bohinc, Jerca Bajuk, Jasmina Jukić, Anže Abram, Martina Oder, Karmen Godič Torkar, Peter Raspor, <u>Davor Kovačević</u>	198
EVALUATION OF THE PROCESS PARAMETERS OF CERAMIC PRODUCED FROM CLAY AND C&DW	
<u>Biljana Angjusheva</u> , Vilma Ducman, Emilija Fidancevska, Vojo Jovanov.....	199
THERMAL STABILITY AND DEGRADATION KINETICS OF ALIPHATIC POLYURETHANE/NANOSILICA COMPOSITES	
<u>Berta Hollo</u> , Milena Špírková, Jelena Pavličević, Oskar Bera, Mirjana Jovičić, Bojana Ikonić, Katalin Mészáros Szécsényi.....	200
ANALYSIS OF GIBBSITE SAMPLES OF BAUXITE AND POSSIBILITY OF APPLICATION IN BAYER PROCESS	
<u>Dario Balaban</u> , Duško Kostić, Mitar Perušić, Zoran Obrenović, Radislav Filipović.....	201
A CRITICAL REVIEW OF CERAMICS FRACTURE TOUGHNESS MEASUREMENT METHODS AND OBSERVATIONS ON SEVNB METHOD IN CASE OF TRADITIONAL CERAMICS	
Dragan Rajnovic, Lepasava Sidjanin, Snezana Vucetic, Jonjaua Ranogajec	202



PREPARATION AND CHARACTERIZATION OF FILMS BASED ON MESOPOROUS SILICA AND ZEIN	
<u>Nejra Omerović</u> , Minja Mladenović, Nikola Knežević, Ljiljana Spasojević, Jaroslav Katona	204
FIFTEEN YEARS OF COLLABORATION OF THE FACULTY OF TECHNOLOGY AND THE GALLERY OF MATICA SRPSKA	
Daniela D. Korolija Crkvenjakov	205
MODIFICATION OF STRUCTURE AND PROPERTIES OF BaTiO ₃ THIN FILMS BY ADDITION OF Sr ²⁺ AND Zr ⁴⁺ IONS	
<u>Jelena Vukmirović</u> , Andrea Nesterović, Ivan Stijepović, Marija Milanović, Zeljka Cvejić, Jelena Bobić, Vladimir V. Srdić	206
REUSE OF CEMENT BYPASS DUST FOR ENVIRONMENTAL FRIENDLY PRODUCTION OF BUILDING MATERIALS	
<u>Damir Čjepa</u> , Željko Ivošević, Snežana Vučetić, Bojan Miljević, John Milan van der Bergh, Jonjaua Ranogajec	208
VALORISATION OF FLY ASH AS SECONDARY RAW MATERIAL TOWARDS IMPLEMENTATION OF CIRCULAR ECONOMY	
<u>Biljana Angjusheva</u> , Vojo Jovanov, Katarin Šter, Alexandra Momirov, Pece Murtanovski, Emilija Fidanchevski, Sabina Kramar	209
MESOPOROUS SiO ₂ PARTICLES WITH CHROMOPHORIC SYSTEM AND THEIR USE IN INDICATION OF RELATIVE HUMIDITY	
E. Švara Fabjan, <u>A. Sever Škapin</u> , P. Nadrah, A. Ajdovec, N. Zabukovec Logar, M. Mazaj, G. Dražić	210
NUTRACEUTICALS AND PHARMACEUTICALS.....	212
THE ROLE OF MICROBIOTA IN THE IMMUNONUTRITION FIELD	
Ascensión Marcos	213
<i>IN SILICO</i> SIMULATIONS OF FREEZE DRYING OF PHARMACEUTICAL FORMULATIONS	
Teresa Barata, Paul Dalby, Steve Brocchini, <u>Mire Zloh</u>	214
PHARMACEUTICALS IN THE ENVIRONMENT: A GROWING PROBLEM	
<u>Cristina Delerue-Matos</u> , Paula Paíga, Luísa Correia-Sá, Manuela Correia	215
DEVELOPMENT OF FUNCTIONAL PRODUCTS USING BIOLOGICALLY ACTIVE SUBSTANCES	
Evgeniy A. Shamin.....	216



RHEOLOGICAL PROPERTIES OF CHITOSAN-SODIUM LAURYL ETHER SULFATE COMPLEXES

Jelena R. Milinković Budinčić, Lidija B. Petrović, Jadranka L. Fraj, Jaroslav M. Katona, Sandra Đ. Bučko, Ljiljana M. Spasojević 217

VARIATION IN THE MAIN NUTRIENTS, PHYTOCHEMICALS AND SENSORY PROPERTIES AMONG VARIOUS SWEET MAIZE GENOTYPES

Marija S. Milašinović-Šeremešić, Milica M. Radosavljević, Jelena Ž. Srdić, Jelena Z. Mesarović 219

THE STUDY OF THE PROPERTIES OF THE SUBSTANCES FOR THE PHARMACEUTICAL INDUSTRY

Alexander V. Knyazev, Anastasia S. Shipilova, Svetlana S. Knyazeva, Ekaterina V. Gusarova, Vladimir N. Emel'yanenko, Alexey A. Amosov 220

POLYMORPHISM IN STEROID HORMONES

Svetlana S. Knyazeva, Alexander V. Knyazev, Anastasia S. Shipilova, Ekaterina V. Gusarova, Alexey A. Amosov 221

THE PHYTOCHEMICAL AND PHARMACOLOGICAL ACTIVITY OF CITRUS LIMETTA PEEL EXTRACTS

Shyam Jee 222

STUDIES ON PHYTOTHERAPEUTIC QUALITY OF *EQUISETUM ARVENSE* L. IN CLUJ, ROMANIA

Neli-Kinga Olah, Edward Muntean, Marcel M. Duda 224

EMULSIFYING PROPERTIES OF POTATO PROTEINS IN COMPARISON TO WHEY PROTEINS

Marina D. Kalic, Veljko S. Krstonošić, Miroslav S. Hadnađev, Tamara R. Dapčević Hadnađev 225

STUDY OF THE TEMPERATURE DEPENDENCE OF THE HEAT CAPACITY OF INULIN AND HEVEIN

Anastasia S. Shipilova, Alexander V. Knyazev, Svetlana S. Knyazeva, Ekaterina V. Gusarova, Alexey A. Amosov 226

WILD GROWING AND CULTIVATED POMEGRANATE: CHEMICAL PROFILING OF JUICES

Šavikin P. Katarina, Zdunić M. Gordana, Teodora R. Janković, Jelena Č. Živković, Dubravka J. Bigović, Nebojša R. Menković 227



INFLUENCE OF DRYING METHOD ON CHITOSAN/XANTHAN POLYELECTROLYTE COMPLEX CHARACTERISTICS	
Ana R. Ćirić, Miodrag N. Mitrić, Vladimir D. Dobričić, <u>Ljiljana M. Đekić</u>	228
<i>IN VITRO</i> CHARACTERIZATION OF REHYDRATION PROCESS AND DISSOLUTION OF IBUPROFEN FROM CHITOSAN/XANTHAN POLYELECTROLYTE COMPLEX BASED DRUG DELIVERY SYSTEMS	
<u>Ana R. Ćirić</u> , Ljiljana M. Đekić	229
THE EFFICIENCY OF ZINC SUPPLEMENTATION	
<u>Jelena D. Nakomčić</u> , Tamara S. Zadrija	231
THERMODYNAMIC AND KINETIC PROPERTIES OF EQUIMOLAR AQUEOUS ANIONIC AND CATIONIC SURFACTANTS MIXTURES – CATANIONICS	
J. Skrbić, T. Kairaliyeva, L. Petrović, J. Katona, V.B. Fainerman, <u>N. Mucić</u> , R. Miller	233
IN SILICO STUDY OF THE BIOLOGICAL POTENTIAL OF THE SELECTED AMIDE DERIVATIVES	
<u>Suzana Lj. Apostolov</u> , Đendi Đ. Vaštag, Borko M. Matijević, Gorana S. Mrđan	234
REACTION OF INOCULATED CANCERS ON NITRIC OXIDE HYPERPRODUCTION, GLUCOSE ENERGY, FOLATE AND VITAMIN B ₁₂ INHIBITION IN YOUNG HAMSTERS	
Dušica J. Popović, Kosta J. Popović, Dušan Lalošević, <u>Jovan K. Popović</u> , Ivan Čapo, Dejan Miljković.....	235
FOLATE, VITAMIN B ₁₂ , GLUCOSE ENERGY DEFICIENCY AND NITRIC OXIDE OVERPRODUCTION INHIBITORY EFFECTS ON FIBROSARCOMA IN ADULT HAMSTERS	
Kosta J. Popović, Dušica, J. Popović, Dušan Lalošević, <u>Jovan K. Popović</u> , Ivan Čapo, Dejan Miljković.....	236
POTENTIAL FOR USE OF VINE SHOOTS EXTRACT IN PHARMACEUTICAL INDUSTRY	
<u>Nikola B. Jojić</u> , Aleksandra I. Jovanović Galović, Nataša M. Jovanović Lješковиć, Slobodan B. Gigov, Milan D. Ilić, Senka S. Vidović, Jelena Z. Vladić, Vesna V. Kojić, Dimitar S. Jakimov	237
CHEMICAL COMPOSITION AND CYTOTOXICITY OF <i>HELICHRYSUM ITALICUM</i> EXTRACT GROWN IN URBAN CONDITIONS	
<u>Zorica O. Mrkonjić</u> , Aleksandra I. Jovanović Galović, Nataša M. Jovanović Lješковиć, Mire F. Zloh, Senka S. Vidović, Jelena Z. Vladić, Milan D. Ilić, Manda I. Dizdar, Vesna V. Kojić, Dimitar S. Jakimov	238



ANTIOXIDANT ACTIVITY OF *MELISSA OFFICINALIS* EXTRACTS

Zorica O. Mrkonjić, Marija D. Jolić, Marina D. Kalić, Manda I. Dizdar, Aleksandra I. Jovanović Galović 239

MICROENCAPSULATION OF JUNIPER BERRY ESSENTIAL OIL (*JUNIPERUS COMMUNIS* L.)

Jelena D. Bajac, Branislava G. Nikolovski, Ivana S. Lončarević, Jovana S. Petrović, Lidija B. Petrović, Branimir M. Bajac 240

PRODUCTION OF FUNCTIONAL PROTEIN ISOLATES FROM VEGETABLE BY-PRODUCTS

Tea Sedlar, Jelena Čakarević, Ljiljana Popović 241

CHEMICAL PROFILING OF WINES OBTAINED FROM AUTOCHTHONOUS GRAPE VARIETY PROKUPAC

Milan D. Ilić, Jelena Č. Živković, Katarina P. Šavikin, Zorica O. Mrkonjić, Nikola B. Jojić, Nataša M. Lješković, Slobodan B. Gigov, Nebojša R. Menković 242

ULTRASOUND-ASSISTED EXTRACTION OF CANNABIDIOL AND $\Delta\Delta$ ⁹⁹ TETRAHYDROCANNABINOL FROM CANNABIS AREAL PARTS AND PROCESS MODELING

Zorica Drinić, Jelena Vladić, Senka Vidović, Anamarija Koren, Biljana Kiprovski, Nadežda Stojanov, Tijana Zeremski 243

OPTIMIZATION OF EXTRACTION OF PHENOLICS FROM *GENTIANA LUTEA* ROOT

Jelena R. Mudrić, Teodora R. Janković, Katarina P. Šavikin, Svetlana R. Ibrić, Jelena D. Đuriš 244

BIOACTIVITY POTENTIAL OF A MEDITERRANEAN BRACKISH DIATOM CULTIVATED IN PHOTOBIOREACTORS

C. Rodolfo, S. Savio, R. Congestri 245

MICROWAVE-ASSISTED SYNTHESIS OF BILE ACID DERIVATIVES AS POTENTIAL LIGANDS OF GLUCOCORTICOID RECEPTOR AND ALDO-KETO REDUCTASE (AKR1C)

Ljubica M. Grbović, Ksenija J. Pavlović, Bojana R. Vasiljević, Sofija S. Bekić, Maja A. Marinović, Edward T. Petri, Anđelka S. Čelić 246

SYNERGISM IN MIXED MONOLAYERS OF POLOXAMER 407 AND POLYSORBATES

Dejan M. Ćirin, Veljko S. Krstonošić, Maja Lj. Milanović 247



IN VITRO TECHNIQUES FOR *DROSER* *ROTUNDIFOLIA* SPECIES FOR FUTURE USE IN THE PHARMACEUTICAL FIELD

Violeta Turcuş, Viviane B. Bota, Elisabeta Chiş, Endre Mathe, Neli Olah 248

THE EFFECT OF MAGNESIUM STEARATE AND SODIUM STARCH GLYCOLATE ON POWDER FLOWABILITY

Gordana Švonja Parezanović, Mladena Lalić-Popović, Svetlana Goločorbin-Kon, Nemanja Todorović, Nebojša Pavlović, Jelena Jovičić-Bata..... 249

EXPOSURE OF PATIENTS TO SODIUM FROM EFFERVESCENT DOSAGE FORMS

Jelena Čanji, Nemanja Todorović, Katarina Jeremić, Nebojša Pavlović, Svetlana Goločorbin-Kon, Jelena Jovičić Bata, Mladena Lalić-Popović 250

OIL EXTRACTION FROM PLUM SEEDS (*PRUNI DOMESTICAE* L.)

Ivan M. Savić, Ivana M. Savić-Gajić 251

INVESTIGATION OF VOLUMETRIC AND VISCOMETRIC PROPERTIES OF ECSTASY IN AQUEOUS SOLUTIONS

Sanja D. Belić, Marija B. Petrin Miličević, Nataša Radosavljević-Stevanović, Milan B. Vraneš, Aleksandar S. Tot, Snežana M. Papović, Slobodan B. Gadžurić 252

GREEN EXTRACTION OF POLYPHENOLS FROM NETTLE LEAVES (*URTICA DIOICA* L)

Marta Maras, Valentina Kruk, Sanja Radman, Verica Dragović-Uzelac, Danijela Bursać Kovačević..... 253

THE INFLUENCE OF ULTRASOUND ASSISTED EXTRACTION ON THE ISOLATION OF BIOACTIVE COMPOUNDS FROM NETTLE LEAVES

Valentina Kruk, Marijana Jurković, Maja Repajić, Ivanka Žutić, Verica Dragović-Uzelac, Zoran Zorić..... 255

ANTIADHESIVE AND ANTIBIOFILM POTENTIAL OF SUBCRITICAL WATER EXTRACTS DERIVED FROM MASHROOM *INONOTUS OBLIQUUS*

Vesna V. Lazić, Jovana Đ. Vunduk, Jelena Z. Vladić, Senka S. Vidović, Anita S. Klaus..... 256

ANTIMICROBIAL ACTIVITY OF *MACLURA POMIFERA* DRY EXTRACTS

Snežana Đ. Filip, Ana M. Vidaković, Aleksandra S. Ranitović, Saša D. Đurović, Stevan N. Blagojević, Zoran P. Zeković..... 257



FREEZE DRIED BERRIES AS SOURCE OF NUTRITIONALLY VALUABLE COMPOUNDS	
Marija Radojković , Milena Vujanović , Gökhan Zengin, Tatjana Majkić, Ivana Beara, Saša Đurović, Zoran Zeković	258
COMPARISON OF THE EFFICIENCY OF DIFFERENT METHODS FOR HESPERIDIN AND NARIRUTIN EXTRACTION FROM ORANGE PEEL	
<u>Silvija Šafranko</u> , Martina Jakovljević, Senka Vidović, Stela Jokić	260
EFFECT OF ANTIHISTAMINE (LORATADINE) TO ACTIVITY OF CATALASE <i>IN VITRO</i>	
Edhem Hasković, <u>Safija Herenda</u> , Zehra Halilović, Denis Hasković, Ena Deljkić	261
MULTI-RESPONSE OPTIMIZATION OF POLYPHENOLS RECOVERY FROM <i>THYMUS SERPYLLUM</i> BY ULTRASOUND-ASSISTED EXTRACTION	
<u>Živan Mrkonjić</u> , Nemanja Teslić, Zoran Zeković, Branimir Pavlić.....	262
CHEMICAL COMPOSITION OF <i>SANTOLINA CHAMAECYPARISSUS</i> L. FLOWER ESSENTIAL OIL	
Biljana Kiprovski, Vladimir Sikora.....	263
VALORISATION OF HOREHOUND EXTRACTS OBTAINED USING ULTRASOUND AND MICROWAVE ASSISTED EXTRACTION: ANTIHYPERGLYCAEMIC ACTIVITY	
<u>Aleksandra Gavarić</u> , Senka Vidović, Jelena Vladić, Jelena Čakarević, Ljiljana Popović.....	264
INFLUENCE OF SUPERCRITICAL FLUID EXTRACTION PARAMETERS ON GRAPE SEEDS OIL RECOVERY	
<u>Ivana Dimić</u> , Živan Mrkonjić, Nemanja Teslić, Dušica Čolović, Zoran Zeković, Branimir Pavlić.....	265
PARTICLE ENGINEERING IN MODERN DRUG FORMULATION	
Rita Ambrus.....	266
PROTEIN HYDROLISATES FROM FOOD BY-PRODUCTS AS NEW ANTIDIABETIC COMPOUNDS	
<u>Jelena Čakarević</u> , Tea Sedlar, Ljiljana Popović	267
<i>IN SILICO</i> PHARMACOKINETIC AND TOXICOLOGICAL ANALYSIS OF BENZOXAZOLES AS ANTIMICROBIAL AGENTS	
<u>Jelena V. Živković</u> , Slavica M. Sunarić, Marko S. Denić, Vesna Lj. Savić, Milica I. Stanković, Katarina B. Baćević.....	268



QUALITY CONTROL AND COUMARIN CONTENT DETERMINATION OF CINNAMON SAMPLES FROM THE SERBIAN MARKETS

Katarina D. Jeremić, Neda S. Gavarić, Nebojša V. Kladar, Milica G. Aćimović, Nemanja B. Todorović, Maja D. Hitl, Biljana N. Božin 269

ISOLATION OF ESSENTIAL OIL FROM ORGANIC *MENTHA PIPERITA* L. BY EMERGING EXTRACTION AND DISTILLATION TECHNIQUES

Branimir Pavlić, Aleksandar Radivojac, Saša Đurović, Živan Mrkonjić, Zoran Zeković 270

EXTRACTION OF WILD THYME (*THYMUS SERPYLLUM* L.): SUPERCRITICAL CO₂ VS. CONVENTIONAL EXTRACTION METHODS

Marinela Nutrizio, Jelena Vladić, Aleksandra Gavrić, Anet Režek Jambrak, Senka Vidović 271

PHENOLIC PROFILE AND ANTIOXIDANT PROPERTIES OF STRAWBERRY WINE

Uroš Čakar, Aleksandar Petrović, Boris Pejin, Vlatka Vajs, Brižita Đorđević 272

IONIZATION BEHAVIOR OF URSODEOXYCHOLIC AND DEOXYCHOLIC ACID IN THE BINARY MIXED MICELLES WITH NONIONIC SURFACTANT TWEEN 60

Gorana G. Puača, Jelena V. Srbinov, Vesna B. Tepavčević, Zita J. Farkas-Agatić, Mihalj M. Poša 273

CHEMICAL COMPOSITION OF *CLINOPODIUM VULGARE* L. EXTRACTS AND THEIR ANTIOXIDANT AND CHOLINESTERASE INHIBITION POTENTIAL

Mejra Bektašević, Olivera Politeo, Ivana Carev 274

ENCAPSULATION OF B-CAROTENE FROM CARROT WASTE BY EXTRUSION TECHNIQUE

Vanja Šregelj, Steva Lević, Jelena Vulić, Ana Kalušević, Jasna Čanadanović-Brunet, Gordana Četković, Viktor Nedović, Vesna Tumbas Šaponjac 275

PHYTOCHEMICALS CONTENT AND BIOACTIVITY OF PEACH POMACE

Ksenija Bibovski, Vanja Šregelj, Jelena Vulić, Gordana Četković, Jasna Čanadanović-Brunet, Vesna Tumbas Šaponjac, Slađana Stajčić 276

COLD PRESSING VS. SUPERCRITICAL CO₂ EXTRACTION OF PLUM (*PRUNUS DOMESTICA* L.) KERNEL SEED

Jelena Vladić, Aleksandra Gavarić, Stela Jokić, Ljiljana Popović, Ana Matias, Naiara Fernández Hernández, Alexandre Agostinho, Senka Vidović 277



SPRAY DRYING OF LIQUID EXTRACT OBTAINED FROM *ARCTOSTAPHYLOS UVA-URSI* HERBAL DUST

Abdulahakim B. Naffati, Senka Vidović, Jelena Vladić..... 278

EFFECT OF DIFFERENT SPRAY DRYING CONDITIONS ON MICROMETRIC AND STRUCTURAL CHARACTERISTICS OF BRINE OBTAINED FROM CABBAGE FERMENTATION

Senka Vidović, Anita Vakula, Rita Ambrus, Jelena Vladić, Gabor Katona, Nataša Nastić 279

PETROLEUM REFINING AND PRODUCTION 281

SYNTHESIS OF COLD FLOW ADDITIVES TO ECOLOGICAL PURE DIESEL FUEL BY METHODS OF CONTROLLED RADICAL POLYMERIZATION

Dmitry F. Grishin, Elena V. Kolyakina, Marina V. Pavlovskaya 282

PETROLEUM REFINING IN SERBIA: INVESTMENTS, DEVELOPMENT PROJECTS AND ACTIVITIES

Dragan Govedarica 283

DEMULSIFICATION OF WATER-IN-CRUDE OIL EMULSIONS USING NEURAL NETWORKS

Hassan Al-Homigany, Mirjana Bulić, Anatoly Zolotukhin, Slavko Nešić, Vlada Streletskaia, Predrag Kojić, Dragan Govedarica 284

EFFECT OF EXTENDER OIL NATURE ON THE RUBBER CROSSLINK DENSITY

Julijana Blagojević, Predrag Kojić, Jelena Pavličević, Olga Govedarica, Mirjana Jovičić, Oskar Bera, Dragan Govedarica 285

AN OVERVIEW OF ARTIFICIAL LIFT SELECTION METHODS WITH CASE OF SELECTION USING MULTI-CRITERIA DECISION-MAKING METHODS

Miroslav P. Crnogorac, Dušan Š. Danilović, Vesna D. Karović Maričić, Lola D. Tomić..... 286

RENEWABLE JET FUEL PRODUCTION FROM VEGETABLE OIL: ASPEN SIMULATION AND TECHNO-ECONOMIC STUDY

Tijana Čarapić, Sandra B. Glišić 287

SIMULATION AND MODELLING OF AN INDUSTRIAL HYDROTREATING PROCESS USING VACUUM AND LIGHT GAS OIL - IMPACT OF CATALYST WETTING EFFICIENCY AND HYDRODEAROMATISATION REACTION KINETIC'S TYPE

Sandra B. Glišić, Aleksandar M. Orlović..... 288



SYNTHESIS OF Re/Pd AND Co/Mo HETEROGENEOUS CATALYSTS ON MESOPOROUS SILICA USING SOL-GEL METHOD FOLLOWED BY SUPERCRITICAL DRYING WITH EXCESS SOLVENT	
Dragana Prokić-Vidojević, <u>Sandra B. Glišić</u> , Aleksandar M. Orlović.....	289
CRUDE OIL MONITORING CHALLENGES IN MODERN REFINERY	
<u>Milka Jelić</u> , Marija Stepanović.....	290
TESTING OF EXPLOITATION PROPERTIES OF HYPOID OIL	
<u>Aleksandar Kekić</u> , Milana Đuričić, Milana Berber, Predrag Kojić, Julijana Blagojević, Dragan Govedarica.....	291
NEW APPROACHES TO THE THIN-LAYER CRACKING OF ACID TARS	
<u>Alexander V. Knyazev</u> , Valentina F. Zanozina, Anastasia S. Shipilova, Svetlana S. Knyazeva.....	292
STRUCTURE-BASED MODELS FOR THE PREDICTION OF FLASH POINT OF MULTI-COMPONENT FUEL MIXTURES	
Ali Younes Nagi Mosbah, <u>Predrag Kojić</u> , Oskar Bera, Olga Govedarica, Radovan Omorjan, Dragan Govedarica.....	293
ADVANCED OIL AND GAS PRODUCTION AND PROCESSING TECHNOLOGIES FOR ARCTIC CONDITIONS	
<u>Slavko Nešić</u> , Dragan Govedarica, Konstantin Pivovarov, Anatoly Zolotukhin, Vlada Streletskaya	294
ASPEN HYSYS SIMULATION OF NATURAL GAS DEHYDRATION PROCESS	
<u>Branislava G. Nikolovski</u> , Svetlana R. Kuzminac, Nevena B. Blagojević, Jelena D. Bajac, Biljana Miljković, Spasojević Đ. Momčilo, Milan N. Sovilj.....	295
SUSTAINABLE DEVELOPMENT, CHEMICAL AND ENVIRONMENTAL ENGINEERING.....	297
LAST ADVANCES ON THE LARGE SCALE PRODUCTION OF BIOACTIVE COMPOUNDS FOR AGRICULTURE AND AQUACULTURE FROM MICROALGAE	
<u>Fransisco G. Acién Fernández</u> , Cintia Gómez Serrano, Jose M. Fernández Sevilla, Emilio Molina Grima	298
BIOLOGICAL CONVERSION OF GREENHOUSE GASES INTO ADDED VALUE BIO-PRODUCTS: MOVING TOWARDS GHG BIOREFINERIES	
Raúl Muñoz	299



TINY MICROALGAE FOR HUGE APPLICATIONS. BIOREFINERY APPROACH Alice Ferreira, Sofia Carapinha, Jelena Vladic, Senka Vidovic, Dragoljub Cvetkovic, Lusine Melkonyan, Gayane Avetisova, <u>Luisa Gouveia</u>	300
THERMODYNAMICS STUDIES OF COPPER AND CHROMIUM(VI) IONS ONTO SUGAR BEET SHREDS AS ADSORBENTS <u>Dragana V. Kukić</u> , Marina B. Šćiban, Vesna V. Vasić, Jelena M. Prodanović	302
SUPERCRITICAL CO ₂ EXTRACTION OF TOBACCO WASTE <u>Marija Banožić</u> , Tanja Gagić, Željko Knez, Mojca Škerget, Stela Jokić	303
THERMOCHEMISTRY ASPECTS OF MECHANOCHEMISTRY ACTIVATION OF THE FLOTATION PROCESSES Milan M. Petrov.....	304
HYDRODYNAMICS OF ROTATING DISC CONTACTOR EXTRACTION COLUMNS <u>Milan N. Sovilj</u> , Momčilo Đ. Spasojević, Branislava G. Nikolovski	305
OXIDATIVE DEGRADATION OF CYAN FLEXO DYE WITH HETEROGENEOUS FENTON REAGENT - Fe ₂ (MoO ₄) ₃ PARTICLE <u>Vesna S. Gvoić</u> , Miljana Đ. Prica, Đurđa V. Kerkez, Milena Đ. Bečelić-Tomin, Aleksandra Z. Kulić, Anita S. Leovac Maćerak, Božo D. Dalmacija.....	307
PRELIMINARY STUDY OF CHROMIUM(VI) IONS ADSORPTION ON BOEHMITE <u>Dragana V. Kukić</u> , Vesna V. Vasić, Marija M. Milanović, Ivan Lj. Stijepović, Marina B. Šćiban, Jelena M. Prodanović	308
REMOVAL AND RECOVERY OF AMMONIUM FROM MILKING PARLOUR WASTEWATER USING POMEGRANATE PEEL <u>Naoufal Bellahsen</u> , Virág Nagypál, Edit Mikó, Zita Šereš, Szabolcs Kertész, Cecilia Hodúr.....	309
USING ERA5 DATA FOR ESTIMATION OF THE WIND ENERGY POTENTIAL IN SERBIA Zorica M. Podrascanin.....	311
OPTIMIZATION OF STARCH SUSPENSION MICROFILTRATION PROCESS – ANN APPROACH <u>Bojana B. Ikonić</u> , Jelena M. Pavličević, Oskar J. Bera, Aleksandar I. Jokić, Predrag S. Kojić, Arpad I. Kiralj, Nataša Lj. Lukić.....	312



VISCOSITY AND pH DETERMINATION OF CHOLINE CHLORIDE BASED DEEP EUTECTIC SOLVENTS CONTAINING AMIDES	
<u>Martina Jakovljević</u> , Melita Lončarić, Mario Komar, Maja Molnar.....	313
AFB1 AND FUMONISIN B1 ADSORPTION AND DESORPTION USING ZEOLITES	
Hunor Farkaš, <u>Jog Raj</u> , Robert Čepela, Zdenka Jakovčević, Jasna Bošnjak-Neumüller, Marko Vasiljević	314
DANUBE SEDIMENT CONTAMINATION WITH POLYCHLORINATED BIPHENYLS: NEW INTERPRETATION OF SEDIMENT QUALITY ASSESSMENT	
<u>Maja Brborić</u> , Borivoj Stepanov, Jelena Radonić, Maja Turk Sekulić	316
THE USE OF GREEN SOLVENTS IN A PRE-TREATMENT OF LIPIDS EXTRACTION FROM GREEN MICROALGAE <i>CHLORELLA</i> SP.	
Natalija G. Đorđević, Bojana R. Danilović, Vlada B. Veljković, <u>Dragiša S. Savić</u>	317
ECONOMIC FEASIBILITY OF AIR SOURCE HEAT PUMPS FOR RESIDENTIAL BUILDINGS IN VOJVODINA	
<u>Arpad I. Kiralj</u> , Aleksandar I. Jokić, Nataša Lj. Lukić, Jovana A. Grahovac, Bojana B. Ikonić, Jelena M. Pavličević, Svetlana S. Popović	318
DETERMINATION OF THE TOTAL ANTIOXIDANT CAPACITY OF BLACK MUSTARD SEEDS (<i>BRASSICA NIGRA</i>) EXTRACTS OBTAINED BY DIFFERENT DEEP EUTECTIC SOLVENTS	
<u>Biljana S. Đorđević</u> , Zoran B. Todorović, Ivica G. Đalović, Dragan Z. Troter, Petar M. Mitrović, Vlada B. Veljković	319
KINETICS OF THE EPOXIDATION OF LINSEED OIL WITH IN SITU FORMED PERACETIC ACID	
<u>Olga M. Govedarica</u> , Milovan R. Janković, Snežana V. Sinadinović-Fišer, Nevena R. Vukić, Ljiljana M. Tanasić, Vesna B. Teofilović, Ljiljana S. Korugic-Karasz	321
MITIGATION OF MEMBRANE FOULING BY APPLICATION OF TURBULENCE PROMOTERS	
Svetlana S. Popović	322
ECOLOGICAL RISK MANAGEMENT WITH INTEGRATED MULTITROPIC AQUACULTURE APPROACH FOR MARINE ENERGY PROJECTS IN INDIA	
Kapilkumar Nivrutti Ingle	323



COMPARISON OF EXTRACTION AGENTS FOR METAL DETERMINATION IN SEDIMENTS FROM ARTIFICIAL LAKES AND RIVERS IN SERBIA	
<u>Katarina Pantović Spajić</u> , Dragana Đorđević, Sanja Sakan, Tatjana Šoštarić, Zorica Lopičić, Aleksandra Janićijević, Ksenija Stojanović	325
PRODUCTION OF L (+) LACTIC ACID FROM CORN HUSK HYDROLYZATE	
<u>Dragana Mladenović</u> , Aleksandra Djukić-Vuković, Jelena Pejin, Sunčica Kocić-Tanackov, Ljiljana Mojović	326
ASSESSMENT OF THE IMPACT OF WASTE WATER DISPOSAL ON THE BEGEJ	
<u>Vesna Ž. Pešić</u> , Milena R. Bečelić-Tomin, Đurđa V. Kerkez, Dejan M. Krčmar, Božo D. Dalmacija, Snežana P. Maletić	327
FUEL POTENTIAL AND PROPERTIES OF GRAPE POMACE HYDROCHAR	
<u>Jelena T. Petrović</u> , Marija L. Mihajlović, Marija S. Petrović, Marija M. Kojić, Marija R. Koprivica, Tatjana Šoštarić, Leposava Filipović-Petrović.....	328
GREEN ENERGY PRODUCTION AT THE WASTEWATER TREATMENT PLANT IN SUBOTICA	
<u>Biljana Isić</u>	330
INFLUENCE OF KENIX STATIC MIXER ON THE FLUX IMPROVEMENT IN THE MICROFILTRATION OF INDUSTRIAL WASTEWATER	
<u>Maja I. Jovović</u> , Aleksandar I. Jokić, Svetlana S. Popović, Zita I. Šereš, Biljana S. Pajin, Bojana B. Ikonić, Nataša Lj. Lukić	331
A NEW APPROACH FOR MODELLING AND OPTIMIZATION OF RUBBER CURING PROCESS	
<u>Jelena D. Lubura</u> , Predrag S. Kojić, Dragan D. Govedarica, Jelena M. Pavličević, Bojana B. Ikonić, Mirjana C. Jovičić, Oskar J. Bera.....	332
STATISTICAL OPTIMIZATION OF THE CORN GERM OIL METHANOLYSIS CATALYZED BY POTASSIUM HYDROXIDE	
<u>Olivera S. Stamenković</u> , Petar M. Mitrović, Ivica G. Đalović, Milan D. Kostić, Vlada B. Veljković	333
KINETIC MODELING OF CORN GERM OIL METHANOLYSIS USING CORN COBS ASH AS A CATALYST	
<u>Milan D. Kostić</u> , Petar M. Mitrović, Ivica G. Đalović, Olivera S. Stamenković, Vlada B. Veljković	335



FATTY ACID METHYL ESTER SYNTHESIS FROM OIL BLENDS

Marija R. Miladinović, Ivana B. Banković-Ilić, Olivera S. Stamenković, Ivica G. Djalović, Petar M. Mitrović, Vlada B. Veljković 336

COMBINATION OF ALKALINE/ACIDIC AND MICROWAVE TREATMENT FOR ENHANCED ANAEROBIC DIGESTION OF SLUDGE

Zoltán Jákói, Sándor Beszédes, Balázs Lemmer, Andrea Vágvölgyi, Cecilia Hodúr.... 337

ASEPTIC APPLE (*MALUS DOMESTICA* BORKH.) AND SOUR CHERRY (*PRUNUS CERASUS* L.) CHANGE IN THE CONTENT OF THE INGREDIENTS DURING STORAGE

Ribárszki Ákos, Furulyás Diána, Rentsendavaa Chagnaadorj, Stéger-Máté Mónika.... 339

MAJOR ENVIRONMENTAL LAW ASPECTS OF SUSTAINABLE DEVELOPMENT

Vladan Joldžić 340

ACTUAL AND REQUIRED WATER QUALITY IN ACCORDANCE WITH THE EU WFD ON THE DANUBE RIVER IN SERBIA

Ljiljana M. Takić, Ivana I. Mladenović Ranisavljević, Dejan M. Vasović, Nenad V. Živković..... 341

ENHANCEMENT AND COMPARISON OF SUBMERGED AND SOLIDSTATE AMYLASE PRODUCTION FROM WHEAT CHAFF BY STATISTICAL OPTIMIZATION

Damjan G. Vučurović, Mirjana I. Jovanović, Bojana Ž Bajić, Siniša N. Dodić..... 342

ADSORPTION OF Cu(II) IONS FROM SYNTHETIC SOLUTION BY SUNFLOWER SEED HUSKS

Srđan Stanković, Tatjana Šoštarić, Mladen Bugarčić, Aleksandra Janićijević, Katarina Pantović-Spajić, Zorica Lopičić 344

INVESTIGATION OF PHOTOCATALYTIC PROPERTIES OF ZnFe-MIXED OXIDES

Milica S. Hadnadjev-Kostić, Tatjana J. Vulić, Jasmina M. Dostanić 345

REDUCTION OF FOULING IN DAIRY WASTEWATER ULTRAFILTRATION PROCESS

Szabolcs Kertész, Nikola Maravić, Szabolcs Gyula Szerencsés, Gábor Veréb, Sándor Beszédes, Zsuzsanna László, Cecilia Hodúr 346

EFFECTS OF COMMERCIAL ANTIOXIDANT FORMULATIONS ON OXIDATIVE STABILITY OF FATTY ACID METHYL ESTERS FROM DIFFERENT RAW MATERIALS

Milica Rankov Šicar, Radoslav Mičić, Milan Tomić, Nataša Đurišić-Mladenović..... 348



HEMP BIODIESEL PRODUCTION: ANALYSIS OF MATERIAL AND ENERGY CONSUMPTION ON INDUSTRIAL SCALE

Marija B. Tasic, Milan D. Kostic, Olivera S. Stamenkovic, Vlada B. Veljkovic 349

PURIFICATION OF DAIRY WASTEWATER COMBINING MEMBRANE FILTRATION WITH OZONE AND FENTON PRETREATMENTS

Mihály Zakar, Zita Šereš, Erika Hanczné-Lakatos, Gábor Keszthelyi-Szabó, Zsuzsanna László 350

Keywords: membrane filtration, ozone, Fenton 351

CORROSION BEHAVIOUR OF STAINLESS STEEL EN 1.4301 IN 0.5 M HCl IN PRESENCE OF COMMERCIAL INHIBITOR

Borislav Malinović, Tijana Djuričić, Duško Zorić 351

CLOUD POINT EXTRACTION PROCEDURE FOR PRECONCENTRATION AND DETERMINATION OF LEAD(II) IONS USING TRITON X-100 AT ROOM TEMPERATURE

Mersiha Suljkanović, Jasmin Suljagić, Nusreta Hasić, Selmina Hodžić 353

THE EFFECT OF POROSITY AND SURFACE AREA OF CLINOPTILOLITE AND ZEOLITE ON THE ADSORPTION OF THE PRODUCTS OF THERMO-OXIDATIVE DEGRADATION OF EDIBLE SUNFLOWER OIL

Sanja M. Dobrnjac, Ljubica C. Vasiljević, Stevan N. Blagojević, Miladin J. Gligorić, Zoran B. Obrenović, Vesna P. Cvijetinić, Dragan V. Tošković, Željko J. Ostojić 354

INTEGRATION OF FIRST AND SECOND GENERATION BIOETHANOL PRODUCTION FROM BY-PRODUCTS OF SUGAR BEET PROCESSING

Jovana D. Gucunski, Bojana Ž. Bajić, Damjan G. Vučurović, Siniša N. Dodić 355

HOW RISK MANAGEMENT STANDARDS CAN CONTRIBUTE TO ACHIEVING SUSTAINABLE DEVELOPMENT GOALS

Tzvetelin K. Gueorguiev 357

DEVELOPMENT OF WILD CYANOBACTERIAL BIOMASS (*APHANIZOMENON FLOS-AQUAE*) BIOREFINING SCHEMES

Michail Syrpas, Jolita Bukauskaitė, Loreta Bašinskienė, Petras Rimantas Venskutonis 358

INVESTIGATION OF HUMIC ACIDS EVOLUTION DURING EX SITU BIOREMEDIATION OF PETROLEUM CONTAMINATED SOIL

Jelena Avdalović, Mila Ilić, Srđan Miletić, Vladimir Beškoski, Nikoleta Lugonja, Jelena Milić, Miroslav M. Vrvic 359



WHEAT SEEDLINGS UNDER THE SALINITY STRESS	
<u>Maja Ižaković</u> , Katica Teskera, Matea Begić, Tihana Marček	360
HOW LCA DAMPENED THE ENTHUSIASM OF FORMER BIOFUEL ADVOCATES?	
Ferenc E. Kiss.....	361
USE OF SEQUENTIAL EXTRACTION TO ASSESS METAL PARTITIONING IN FLOODED AGRICULTURAL SOIL	
<u>Biljana D. Škrbić</u> , Igor S. Antić, Maja B. Buljovčić, Jelena R. Živančev.....	363
REMOVAL OF NATURAL ORGANIC MATTER AND EMERGING CONTAMINANTS FROM GROUNDWATER USING OZONATION AND GAC FILTRATION	
J. Molnar Jazić, M. Kragulj Isakovski, A. Tubić, T. Apostolović, M. Watson, S. Maletić, <u>J. Agbaba</u>	364
BIOCATALYTIC BIODIESEL SYNTHESIS WITH <i>BURKHOLDERIA CEPACIA</i> AND <i>PSEUDOMONAS FLUORESCENS</i> LIPASE	
<u>Sandra Budžaki</u> , Marta Ostojčić, Ivica Strelec.....	365
SOLAR-LIGHT PHOTOCATALYTIC ACTIVITY OF ZnFe ₂ O ₄ NANOPARTICLES	
<u>Marija Milanović</u> , Milica Hadnađev-Kostić.....	367
MODELING OF ULTRAFILTRATION WITH DIFFERENT FOULING MECHANISMS	
Nikolett Gulyás, Zoltán Jákói, Virág Nagypál, <u>Cecilia Hodúr</u>	368

1st International Conference on Advanced Production and Processing 10th-11th October 2019, Novi Sad, Serbia



International Conference
on Advanced Production and Processing



Rectorate of the University of Novi Sad
Dr Zorana Đinđića 1, 21000 Novi Sad, Serbia



Faculty of Technology Novi Sad
Bulevar cara Lazara 1, 21000 Novi Sad, Serbia



Republic of Serbia
Autonomous Province of Vojvodina
Provincial Secretariat for Higher Education
and Scientific Research



Российское
профессорское
собрание

