of the 68th Scientific Conference with International Participation
"Food Science, Engineering and Technology - 2021"
THE ANNOUNCED TIME IS IN BULGARIAN TIME (CET +1)
ОБЯВЕНИТЕ ЧАСОВЕ СА В БЪЛГАРСКО ВРЕМЕ (СЕТ +1)

October 22, 2021 (Friday)
22 октямври 2021 г. (петък)

9:00 - 10:00
REGISTRATION OF PARTICIPANTS IN 68TH SCIENTIFIC CONFERENCE WITH INTERNATIONAL PARTICIPATION "FOOD SCIENCE, ENGINEERING AND TECHNOLOGY - 2021"
9:00 - 10:00
Регистрация на участниците в 68-ма Научна конференция с международно участие „ХРАНИТЕЛНА НАУКА, ТЕХНИКА И ТЕХНОЛОГИИ-2021”

10:00 - 10:10
OPENING CEREMONY OF THE 68TH SCIENTIFIC CONFERENCE WITH INTERNATIONAL PARTICIPATION "FOOD SCIENCE, ENGINEERING AND TECHNOLOGY - 2021"
10:00 - 10:10
Официална церемония по Тържествено откриване на 68-ма Научна конференция с международно участие „ХРАНИТЕЛНА НАУКА, ТЕХНИКА И ТЕХНОЛОГИИ - 2021”

10:10 - 10:15
WELCOME SPEECH ON BEHALF OF THE RECTOR OF UFT-PLOVDIV – ASSOC. PROF. HRISTO SPASSOV, PhD – VICE-RECTOR FOR EDUCATIONAL ACTIVITIES AND ACADEMIC STAFF
10:10 - 10:15
ПРИВЕТСТВЕНО СЛОВО ОТ ИМЕТО НА РЕКТОРА НА УХТ-ПЛОВДИВ – ДОЦ. Д-Р ХРИСТО СПАСОВ – ЗАМ.-РЕКТОР ПО УЧЕБНА ДЕЙНОСТ И АКАДЕМИЧЕН СЪСТАВ

10:15 - 10:25
PRESENTATION OF THE CERTIFICATES TO THE LECTURERS HABILITATED IN THE PERIOD 10.2020 - 10.2021 - ASSOC. PROF. HRISTO SPASSOV, PhD – VICE-RECTOR FOR EDUCATIONAL ACTIVITIES AND ACADEMIC STAFF
10:15 – 10:25

10:25 – 10:45
PROJECT “STRENGTHENING THE RESEARCH EXCELLENCE AND INNOVATION CAPACITY OF UNIVERSITY OF FOOD TECHNOLOGIES – PLOVDIV THROUGH THE SUSTAINABLE DEVELOPMENT OF TAILOR-MADE FOOD SYSTEMS WITH PROGRAMMABLE PROPERTIES” – PRESENTATION BY PROF. GEORGI KOSTOV, DSC AND PRESENTATION OF A SHORT CV TO THE INVITED SPEAKER PROF. RAFAEL PAGAN, UNIVERSITY OF ZARAGOZA, SPAIN
10:25 – 10:45
Проект “Strengthening the research excellence and innovation capacity of University of Food Technologies – Plovdiv through the sustainable development of tailor-made food systems with programmable properties” – презентация от проф. д.н. Георги Костов и представяне на пленарния докладник проф. Рафаел Паган, Университет на Сарагоса, Испания

10:45 - 11:15
PLENARY REPORT “MICROBIAL INACTIVATION BY NEW TECHNOLOGIES AND COMBINED PROCESSES”
INVITED SPEAKER: RAFAEL PAGÁN, INSTITUTO AGROALIMENTARIO DE ARAGÓN-IA2, UNIVERSIDAD DE ZARAGOZA, SPAIN
Пленарен доклад на тема „Микробна инактивация чрез нови технологии и комбинирани процеси”
Гост-лектор: Рафаел Паган, Институт по храните на Арагон, Университет на Сарагоса, Испания

11:15 - 11:30
PLENARY REPORT DISCUSSION
11:15 - 11:30
Дискусия по пленарния доклад

11:30 – 11:45
PROJECT “EIT FOOD RIS CONSUMER ENGAGEMENT LABS” – PRESENTATION BY CHIEF. ASSIST. PROF. RADA DINKOVA, PhD, UNIVERSITY OF FOOD TECHNOLOGIES, PLOVDIV
11:30 – 11:45
Проект “EIT Food RIS Consumer Engagement Labs” – презентация от гл. ас. д-р Рада Динкова, Университет по хранителни технологии – Пловдив

11:45 - 12:00
Break
Почивка
12:00
**PLENARY SESSION**
ПЛЕНАРНО ЗАСЕДАНИЕ

**CHAIRMAN:** Prof. Georgi Kostov, DSc; Chief. Assist. Prof. Rada Dinkova, PhD
ПРЕДСЕДАТЕЛ: проф. д.н. Георги Костов; гл. ас. д-р Рада Динкова

**THEMATIC AREA 1. FOOD SCIENCE AND TECHNOLOGY**
ТЕМАТИЧНО НАПРАВЛЕНИЕ 1. ХРАНИТЕЛНА НАУКА И ТЕХНОЛОГИЯ

**12:00 - 12:10**
**Oral presentation 1.1. Edible oleogels – alternative healthy replacers of saturated fats**
Научно съобщение 1.1. Хранителни олеогели – алтернативни заместители на наситени мазнини

*Stepan Akterian*¹
¹Division of Technology of edible, essential oils, perfumery and cosmetics. Technological Faculty. University of Food Technologies. Plovdiv, Bulgaria

**12:10 - 12:20**
**Oral presentation 1.2. Evaluation of the qualitative parameters of raw sheep's milk for the production of traditional artisan cheese**
Научно съобщение 1.2. Изследване на качествените показатели на сурово овче мляко за производството на традиционно занаятчийско сирене

*Stanko Stankov*, *Hafize Fidan*, *Tatyana Balabanova*, *Eva Dimitrova*, and *Salam A. Ibrahim*
¹Department of Nutrition and Tourism, Faculty of Economics, University of Food Technologies, 4002 Plovdiv, Bulgaria
²Department of Milk and Dairy products Technology, Technological Faculty, University of Food Technologies, 4002 Plovdiv, Bulgaria
³Department of Informatics and Statistics, Faculty of Economics, University of Food Technologies, 4002 Plovdiv, Bulgaria
⁴Food Microbiology and Biotechnology Laboratory, North Carolina Agricultural and Technical State University, Greensboro, NC 27411, USA

**12:20 - 12:30**
**Oral presentation 1.3. Study of the composition of distillate beverages produced from Sorbus Domestica fruits**
Научно съобщение 1.3. Проучване върху състава на дестилатни напитки получени от плодове от вид Sorbus Domestica

*Mariana A. Galabova*, *Nikolay Stoyanov*, and *Panko Mitev*
¹Department of wine and beer technology, Technological Faculty, University of Food Technologies, Plovdiv, Bulgaria
²Department of wine and beer technology, Technological Faculty, University of food technologies, Plovdiv, Bulgaria
³Department of wine and beer technology, Technological Faculty, University of food technologies, Plovdiv, Bulgaria

**12:30 - 12:40**
Научно съобщение 1.4. Хидродинамични изследвания на апарати за изпиране на маслосъдържащи ядки в ротационно-импулсен кипящ слой

*Georgi Djourkov* and *Dimitar Hadjiokinov*
¹Department of Tobacco, Sugar, Vegetable and Essential Oils. University of Food Technologies. Plovdiv. Bulgaria
Oral presentation 1.5. Quality changes of cooked sausages influenced by the incorporation of a three-component natural antioxidant blend

Nikolay Kolev1, Desislava Vlahova-Vangelova1, Dessislav Balev1, and Stefan Dragoev1,2,*
1University of Food Technologies, Technological Faculty, Department of Meat and Fish Technology, 4002 Plovdiv, Bulgaria
2Bulgarian Academy of Science, Assembly of Academicians and Corresponding Members, 1040 Sofia, Bulgaria

THEMATIC AREA 2. FOOD CHEMISTRY, MICROBIOLOGY, BIOTECHNOLOGY
ТЕМАТИЧНО НАПРАВЛЕНИЕ 2. ХРАНИТЕLNА ХИМИЯ, МИКРОБИОЛОГИЯ И БИОТЕХНОЛОГИЯ

Oral presentation 2.1. Effect of basal medium on growth and polyphenols accumulation by Gardenia jasminoides Ellis cell suspension
Gergana Krasteva1.
1Laboratory of Cell Biosystems, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Plovdiv, Bulgaria

THEMATIC AREA 3. FOOD PROCESS ENGINEERING
ТЕМАТИЧНО НАПРАВЛЕНИЕ 3. ТЕХНИКА И ПРОЦЕСЕН ИНЖЕНЕРИНГ

Oral presentation 3.1. Physical-Chemical Models In Technology Developments For The Efficient Use Of Bio-fuels
Gheorghe Lăzăroiu1, Lucian Mihăescu2, Gabriel-Paul Negreanu2, Ionel Pișă2, Viorel Berbece2,∗
1Department of Energy Generation and Utilization, University Politehnica of Bucharest, Romania
2Department of Thermodynamics, Engines, Thermal and Refrigeration Equipment, University Politehnica of Bucharest, Romania

13:10 - 13:20
Oral presentation 3.2. Sorption isotherms of parsnip
Ivan Kiryakov1, Mariya Georgieva1,∗, Dimitar Atanasov1, and Nadya Arabadzhieva2
1Department of Industrial Heat Engineering, University of Food Technology – Plovdiv, Bulgaria
2Department of Technical Mechanics and mechanical Engineering, University of Food Technology – Plovdiv, Bulgaria

THEMATIC AREA 4. CATERING, TOURISM, ECONOMY OF FOOD INDUSTRY, LINGUISTICS
ТЕМАТИЧНО НАПРАВЛЕНИЕ 4. КЕТЬРИНГ, ТУРИЗЪМ, ИКОНОМИКА И ЛИНГВИСТИКА

Oral presentation 4.1. The effect of economic policies on macedonia’s food system
Nikolche Jankulovski1,∗, Katerina Bojkovska1, Goran Mihajlovski1, and Monika Angeloska Dichovska1
1University “St. Kiment Ohridski”, Faculty of Biotechnical Science, Department of Agricultural Economics, Bitola, R. Macedonia
2University “St.Kliment Ohridski”-Bitola, Faculty of Economics, Prilep, R. Macedonia
13:30 - 15:00
A brief presentation and discussion on the posters in Thematic areas
Кратка презентация и дискусия върху постерите представени в Тематичните направления

THEMATIC AREA 1. FOOD SCIENCE AND TECHNOLOGY
ТЕМАТИЧНО НАПРАВЛЕНИЕ 1. ХРАНИТЕЛНА НАУКА И ТЕХНОЛОГИЯ

Poster 1.1. Composition of Kashkaval cheese manufactured from different levels of somatic cell counts in sheep milk
Постер 1.1. Състав на Кашкавал получен от овче мляко с различен брой соматични клетки
Tatyana Balabanova¹, Mihaela Ivanova¹, Milena Dimitrova-Dicheva¹*, and Ivelina Ivanova²
¹Department of Milk and Dairy Products Technology, Technological Faculty, University of Food Technologies, 4002 Plovdiv, Bulgaria
²Department of Analytical Chemistry, Technological Faculty, University of Food Technologies, 4002 Plovdiv, Bulgaria

Poster 1.2. Complex evaluation of the quality of introduced and local varieties of Virginia flue-cured tobacco in Bulgaria
Постер 1.2. Комплексна оценка на качеството на интродуцирани и местни сортове тютюн Виржиния флю-курд в България
Nikolay Nikolov¹, Violeta Nikolova¹, and Venelina Popova²*
¹Agricultural Academy, Tobacco and Tobacco Products Institute (TTPI), 4108 Markovo, Bulgaria
²University of Food Technologies, Department of Tobacco, Sugar, Vegetable and Essential Oils, 4002 Plovdiv, Bulgaria

Poster 1.3. Effect of maturity on the phytonutrient composition of Cape gooseberry seeds (Physalis peruviana L.)
Постер 1.3. Влияние на зрелостта върху фитохимичния състав на семена от физалис (Physalis peruviana L.)
Venelina Popova¹*, Tanya Ivanova¹, Zhana Petkova², Magdalena Stoyanova¹, Albena Stoyanova¹, Nadezhda Mazova¹ and Nikolay Panayotov¹
¹University of Food Technologies, Department of Tobacco, Sugar, Vegetable and Essential Oils, 4002 Plovdiv, Bulgaria
²Plovdiv University “Paisii Hilendarski”, Department of Chemical Technology, 4000 Plovdiv, Bulgaria
³University of Food Technologies, Department of Analytical Chemistry and Physical Chemistry, 4002 Plovdiv, Bulgaria
⁴Agricultural University, Department of Horticulture, 4000 Plovdiv, Bulgaria

Poster 1.4. Viscosity, Centrifugation test and Kinetic investigations in Emulsions with Pumpkin oil
Постер 1.4. Вискозитет, центрофужен тест и кинетични изследвания на емулсии с тиквено масло
Vanya Gandova¹*, Ivalina Petrova², Stanislava Tasheva¹ and Albena Stoyanova¹
¹Department of Analytical and Physical chemistry, University of Food technologies, 4002 Plovdiv, Bulgaria
²Department of Mathematics, Physics and Chemistry, Technical University Sofia, branch Plovdiv, 4002 Plovdiv, Bulgaria
³Department of Heat Engineering, University of Food technologies, 4002 Plovdiv, Bulgaria
⁴Department of Technology of Tobacco, Sugar, Vegetable and Essential Oils, University of Food Technologies, 4002 Plovdiv, Bulgaria

Poster 1.5. Thermodynamic investigation of meat and fish products in metal container at long storage period
Постер 1.5. Термодинамично изследване на месо и рибни продукти в консерви при дълъг период на съхранение
Vanya Gandova¹*
¹Department of Analytical and Physical chemistry, University of Food technologies, 4002 Plovdiv, Bulgaria
**Poster 1.6. Application of emmer protein hydrolysate (Triticum dicoccum Schrank) in cosmetics**

Постер 1.6. Приложение на белъчен хидролизат от лимец (Triticum dicoccum Schrank) в козметични препарати

Tanya Ivanova¹ and Pavel Merdzanov¹

¹Department of Tobacco, Sugar, Vegetable and Essential Oil. Technology Faculty, University of Plovdiv, Plovdiv, Bulgaria

**Poster 1.7. Comparative study of the smoke emissions from fine-cut tobacco blends depending on the characteristics of the used RYO/MYO cigarette materials**

Постер 1.7. Сравнително изследване на димните емисии от фино нарязани тютюнови смеси в зависимост от характеристиците на използваните материали за ръчно свиване на цигари

Silvia Peeva¹, Violeta Nikolova¹,², and Nikolay Nikolov¹

¹Agricultural Academy, Tobacco and Tobacco Products Institute (TTPi), 4108 Markovo, Bulgaria

**Poster 1.8. Effect of the antioxidant type phytonutrients diet supplementation on the lamb quality**

Постер 1.8. Ефект от добавката на антиоксидантни фитонутриенти към диетата върху качеството на агнешкото месо

Desislava Vlahova-Vangela¹, Nikolay Kolev¹,², Dessislav Balev¹, Nevunya Stancheva, Jivko Nakev² and Stefan Dragoev¹,³

¹University of Food Technologies, Technological Faculty, Department of Meat and Fish Technology, 4002 Plovdiv, Bulgaria

²Agricultural Academy Sofia, Bulgaria. Agricultural Institute, Department of Animal Science, 9700 Shumen, Bulgaria

³Bulgarian Academy of Science, Assembly of Academicians and Corresponding Members, 1040 Sofia, Bulgaria

**Poster 1.9. Isomaltulose as an alternative to sucrose in the composition of Turkish delight (lokum)**

Постер 1.9. Изомалтулозата като алтернатива на захарозата в състава на локум

Raina Hadjikinova¹,² and Yusuf Hasan¹

¹University of Food Technologies of Plovdiv, Bulgaria

Faculty of Technology, Department of tobacco, sugar, vegetable and essential oils

**Poster 1.10. Starch with non-starchy polysaccharide hydrocolloids interactions**

Постер 1.10. Взаимодействие на нишесте с ненишестени полизахаридни хидроколоиди

Marek Sikora¹, Anna Dobosz³

¹Department of Carbohydrates Technology, Faculty of Food Technology, University of Agriculture in Krakow, Poland

**Poster 1.11. Effect of cranberry extract (Vaccinium vitis-idaea L.) on the antioxidant, physicochemical and sensory characteristics of ice cream**

Постер 1.11. Влияние на екстракт от червена боровинка (Vaccinium vitis-idaea L.) върху антиоксидантните, физикохимичните и сензорни характеристики на сладолед

Petya Boyanova¹, Nadejda Petkova², Ivan Ivanov³, Valentina Dobreva³, Dilyana Gradinarska⁴, Dragomira Buhalova⁵

¹Department of Milk and Dairy Products. Technological Faculty. University of Food Technologies. Plovdiv. Bulgaria

²Department of Organic Chemistry and Inorganic Chemistry. Technological Faculty. University of Food Technologies. Plovdiv. Bulgaria


⁴Department of Meat and Fish Technology. Technological Faculty. University of Food Technologies. Plovdiv. Bulgaria

⁵Department of Catering and Tourism. Faculty of Economics. University of Food Technologies. Plovdiv. Bulgaria

**Poster 1.12. Effect of Spirulina plantensis on the quality and antioxidants characteristics of ice cream**

Постер 1.12. Влияние на Spirulina plantensis върху качествените и антиоксидантни характеристики на млечен сладолед
Petya Boyanova¹ *, Dilyana Gradinarska², Valentina Dobreva¹, Peter Panayotov¹, Maria Momchilova⁴, Gabor Zsivanovits³
¹University of Food Technologies, Department of Milk and Dairy Products, 26 Maritsa Blvd., 4000 Plovdiv, Bulgaria
²University of Food Technologies, Department of Meat and Fish, 26 Maritsa Blvd., 4000 Plovdiv, Bulgaria
³University of Food Technologies, Department of Engineering ecology, 26 Maritsa Blvd., 4000 Plovdiv, Bulgaria
⁴Agricultural Academy of Bulgaria, Institute of Food Preservation and Quality, Division of Food Technologies, 154 Vasil Aprilov Blvd., 4000 Plovdiv, Bulgaria

Poster 1.13. Technological and morphological characteristics of AEF frozen „foie gras“ (fatty duck liver)
Постер 1.13. Технологични и морфологични характеристики на угоен патешки дроб „foie gras“ след акустично подпомагано замразяване
Desislava B. Vlahova-Vangelova¹ *, Desislav K. Balev¹, Nikolay D. Kolev¹, Rada H. Dinkova², Stefan G. Dragoev³
¹University of Food Technologies, Department of Meat and Fish Technology, 26 Maritza Blvd., Plovdiv, 4002, Bulgaria
²University of Food Technologies, Department of preservation and refrigeration technology, 26 Maritza Blvd., Plovdiv, 4002, Bulgaria

Poster 1.14. Quality of enriched eggs after feed supplements with silkworm pupae (Bombyx mori) and black fly larvae (Hermetia illucens)
Постер 1.14. Качество на яйца от носачки след използване на смески с какавиди на копринена буба (Bombyx mori) и ларви на черна муха (Hermetia illucens)
Mitko Lalev¹, Desislava B. Vlahova-Vangelova², Nikolay D. Kolev²*
¹Agricultural Institute - Stara Zagora, Agricultural Academy, 1000 Sofia, Bulgaria
²University of Food Technologies, Technological Faculty, Department of Meat and Fish Technology, 4002 Plovdiv, Bulgaria

Poster 1.15. Dynamics Of Changes In The Chemical Composition Of Legumes Of Belarusian Selection During Storage
Постер 1.15. Динамика изменения химического состава бобовых культур белорусской селекции в процессе хранения
¹Department of technology of bread products, Faculty of Technology, Belarusian State University of Food and Chemical Technologies, Mogilev, Belarus

Poster 1.16. Prospects for the Use of Chumiza of Belarusian Selection
Постер 1.16. Перспективи использования чумизы белорусской селекции
L. V. Rukshan¹ ✉, Zh. V. Koshak², E. E. Rybkina¹, A. J. Agurkov¹, S. V. Ravusova¹
¹Department of technology of bread products, Faculty of Technology, Belarusian State University of Food and Chemical Technologies, Mogilev, Belarus
²RUE «Institute for Fish Industry» National Academy of Sciences of Belarus, Minsk, Belarus

THEMATIC AREA 2. FOOD CHEMISTRY, MICROBIOLOGY, BIOTECHNOLOGY
ТЕМАТИЧНО НАПРАВЛЕНЕ 2. ХРАНИТЕЛНА ХИМИЯ, МИКРОБІОЛОГІЯ І БІОТЕХНОЛОГІЯ

Poster 2.1. Optimisation of methanol extraction parameters for total flavonoids from onion processing waste
Постер 2.1. Оптимизиране на параметрите на екстракция с метанол на общи flavonoиди от индустриални отпадъци от кромид лук
Tsvetko Prokopov¹ ✉, Milena Nikolova¹, Stanislava Tasheva², and Donka Taneva¹
¹Department of Engineering Ecology, University of Food Technologies, 26 Maritsa Blvd., 4002 Plovdiv, Bulgaria
²Department of Heat Engineering, University of Food Technologies, 26 Maritsa Blvd., 4002 Plovdiv, Bulgaria
Poster 2.2. Microencapsulation in food industry – an overview
Постер 2.2. Микрокапсулиране в хранително-вкусовата промишленост - общ преглед
Authors: Dorina Petkova\(^1\), Dasha Mihaylova\(^1\), and Ivelina Desseva\(^2\)
\(^1\)Department of Biotechnology, Technological Faculty, University of Food Technologies, 4002 Plovdiv
\(^2\)Department of Analytical Chemistry and Physical Chemistry, Technological Faculty, University of Food Technologies, 4002 Plovdiv, Bulgaria

Poster 2.3. Food-derived bioactive peptides - methods for purification and analysis
Постер 2.3. Хранителни биоктивни пептиди - методи за пречистване и анализ
Alexandra Garmidolova\(^1\), Ivelina Desseva\(^1\), Margarita Terziyska\(^2\), Atanas Pavlov\(^1\)
\(^1\)Department of Analytical Chemistry and Physical Chemistry, UFT Plovdiv, Bulgaria
\(^2\)Informatics and Statistics Department, UFT Plovdiv, Bulgaria

Poster 2.4. Study on the effect of sublethal concentrations of antimicrobials on the growth and development of probiotic lactobacilli
Постер 2.4. Изследване на влиянието на сублетални концентрации на антимикробни вещества върху растежа и развитието на лактобацили
Aila Ilyazova\(^1\), Denica Blazheva\(^1\), Aleksandar Slavchev\(^1\), and Albert Krastanov\(^2\)
\(^1\)University of Food Technologies, Department of Microbiology, 26 Maritza Blvd., 4002 Plovdiv, Bulgaria
\(^2\)University of Food Technologies, Department of Biotechnology, 26 Maritza Blvd., 4002 Plovdiv, Bulgaria

Poster 2.5. In vitro simulation of the gastrointestinal tract environment and its interaction with probiotic lactobacilli
Постер 2.5. In vitro симулиране на средата в стомашночревния тракт и взаимодействието й с пробиотични лактобацили
Aila Ilyazova\(^1\), Denica Blazheva\(^1\), Aleksandar Slavchev\(^1\), and Albert Krastanov\(^2\)
\(^1\)University of Food Technologies, Department of Microbiology, 26 Maritza Blvd., 4002 Plovdiv, Bulgaria
\(^2\)University of Food Technologies, Department of Biotechnology, 26 Maritza Blvd., 4002 Plovdiv, Bulgaria

Poster 2.6. Comparative study of DNA extraction methods for identification of medicinal mushrooms
Постер 2.6. Сравнително проучване на методи за екстракция на ДНК за идентификация на медицински гъби
Petya Stefanova\(^*\), Mariya Brazkova, and Galena Angelova
\(^*\)Department of Biotechnology, University of Food Technologies, Plovdiv, Bulgaria

Poster 2.7. Endophytic microflora from Ficus carica L. leaves – isolation, characterization and potential for application
Постер 2.7. Ендофитна микрофлора от листа на Ficus carica L. – изолиране, характеризиране и потенциал за приложение
Emiliya Lozanova\(^1\), Elena Savova\(^1\), Vasilka Lateva\(^1\), Tsvetanka Teneva-Angelova\(^2\)
\(^1\)Department of Analytical chemistry and Physical Chemistry, University of Food Technologies, 26 Maritza Blvd., 4002 Plovdiv, Bulgaria
\(^2\)Laboratory of Cell Biosystems, Department of Biotechnology, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, 139 Ruski Blvd., 4000 Plovdiv, Bulgaria

Poster 2.8. Types of microbial electrolysis cells (MECs)
Постер 2.8. Видове клетки за микробна електролиза
E.Vasileva, Ts. Parvanova-Mancheva, V. Beschkov
Institute of chemical engineering, BAS, Sofia

Poster 2.9. Types of microorganisms used in microbial electrolysis cells to produce hydrogen
Постер 2.9. Видове микроорганизми използвани в микробните електролизни клетки за производство на водород
Ts. Parvanova-Mancheva, E.Vasileva, V. Beschkov
Institute of chemical engineering, BAS, Sofia
Poster 2.10. An Extraction-Chromogenic System for Iron(III) Based on 4-Nirocatechol
Постер 2.10. Екстракционно спектрофотометрична система на железо(III) и 4-нитрокатехол
Galya Toncheva¹, Antoaneta Saravanska², Vidka Divarova³, Nicole Parapanova¹, Sofia Dimova¹, Kiril Gavazov²
¹Department of General and Inorganic Chemistry, University of Plovdiv, 24 Tsar Assen St., 4000 Plovdiv, Bulgaria
²Medical University of Plovdiv, Plovdiv, Bulgaria

Poster 2.11. Ligninolytic enzymes in Basidiomycetes and their application in xenobiotics degradation
Постер 2.11. Приложение на лигнинолитични ензими от базидиомицети за деградация на ксенобиотици
Mariya Brazkova¹*, Ralitza Koleva², Galena Angelova¹ and Huseyin Yemendzhiev²
¹Department of Biotechnology, University of Food Technologies, 26 Maritza Blvd., Plovdiv, Bulgaria
²Department of Chemical Technologies, Burgas ‘Asen Zlatarov’ University, 1 Prof. Yakim Yakimov Blvd., Burgas, Bulgaria

Poster 2.12. In vitro examination of the antimicrobial activity of a potentially probiotic Lactobacillus acidophilus strain against Escherichia coli, Staphylococcus aureus and Salmonella sp.
Постер 2.12. In vitro изследване на антимикробната активност на потенциално пробиотичен щам Lactobacillus acidophilus срещу Escherichia coli, Staphylococcus aureus и Salmonella sp.
Zapryana Denkova¹, Velitchka Yanakieva¹, Bogdan Goranov¹, Teodora Tomova¹, Rositsa Denkova-Kostova², Nadia Oulahal³, Georgi Kostov⁴, Pascal Degraeve⁵
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Poster 2.13. Study on the applicability of potentially probiotic strain Lactobacillus plantarum L4 to be included in the development of strategies for bio-preservation of food products
Постер 2.13. Проучване на възможността за приложение на потенциално пробиотичен щам Lactobacillus plantarum L4 за включване в разработването на стратегии за биологично консервиране на хранителни продукти
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