

PROGRAMME

MAY 25, Saturday

20:00 **Opening, greetings. Welcome dinner**

MAY 26, Sunday

Session 1: FUNDAMENTAL PROCESSES IN RADIATION CHEMISTRY I

Chair: Joseph Rabani

Invited lecture

09:00 – 09:30 Vladimir Feldman
O1 NEW INSIGHT INTO X-RAY INDUCED RADIATION CHEMISTRY: FROM MODELING OF COLD ASTROCHEMICAL PROCESSES TO NANOMATERIALS AND BIOMEDICAL APPLICATIONS

Contributed talks

09:30 – 09:50 Masao Gohdo
O2 RE-INVESTIGATION OF RADIATION INDUCED REACTION OF CARBON TETRACHLORIDE

09:50 – 10:10 Nicholas Green
O3 COMPETITION AND CORRELATION EFFECTS IN SCAVENGING KINETICS

10:10 – 10:30 Yoichi Yoshida
O4 FEMTOSECOND PULSE RADIOYSIS STUDY ON PRIMARY PROCESS OF RADIATION CHEMISTRY OF LIQUID ALKANE

10:30 – 10:50 **COFFEE BREAK**

Session 2: FUNDAMENTAL PROCESSES IN RADIATION CHEMISTRY II

Chair: Nicholas Green

Invited lecture

10:50 – 11:20 Yuri A. Berlin
O5 ELECTRIC CONDUCTANCE ON NANOSCALE: ISOLATED MOLECULES VERSUS THIN ORGANIC FILMS

Contributed talks

11:20 – 11:40 Khashayar Ghandi
O6 MUON AND ELECTRON RADIOLYSIS AS COMPLEMENTARY TECHNIQUES IN RADIATION CHEMISTRY

11:40 – 12:00 Joseph Rabani
O7 UNUSUAL REDUCTION OF GRAPHENE OXIDE BY TITANIUM DIOXIDE ELECTRONS PRODUCED BY IONIZING RADIATION. REACTION PRODUCTS AND MECHANISM

- 12:00 – 12:20 Jay LaVerne
O8 HAZARDOUS GAS PRODUCTION IN THE NUCLEAR
POWER INDUSTRY
- 12:20 – 14:00 **LUNCH BREAK**

Session 3: RADIATION CHEMISTRY OF BIOLOGICAL SYSTEMS

Chair: Yuri A. Berlin

Invited lecture

- 14:00 – 14:30 Chryssostomos Chatgililoglu
O9 RADIATION-BASED RADICAL APPROACH TO
BIOMIMETIC CHEMISTRY

Contributed talks

- 14:30 – 14:50 Gina Manda
O10 ACTIVATION OF ENDOGENOUS SOURCES OF
REACTIVE OXYGEN SPECIES FOLLOWING IN VITRO
EXPOSURE OF MONOCYTES TO GAMMA AND X RAYS
- 14:50 – 15:10 Quentin Raffy
O11 RADIOLYSIS OF AN AROMATIC AMINO-ACID BY
ACCELERATED IONS: SYSTEMATIC STUDY OF THE
LET EFFECTS ON THE RADIOLYSIS PRODUCTS AND
COMPARISON WITH HYDROXYL RADICAL YIELDS
- 15:10 – 15:30 Konrad Skotnicki
O12 THREE-ELECTRON BONDED SULFUR-CENTERED
RADICALS IN NITROGEN HETEROCYCLES
- 15:30 – 15:50 **COFFEE BREAK**

Session 4: RADIATION CHEMISTRY OF NANOSCALE SYSTEMS

Chair: Mohamad Al-Sheikhly

Invited lecture

- 15:50 – 16:20 Dan Meyerstein
O13 RADICAL REACTIONS AT SURFACES

Contributed talks

- 16:20 – 16:40 Xuewu Ge
O14 ONE-STEP SYNTHESIS OF $\text{MNO}_2@ \text{SIO}_2$
NANOPARTICLES BY γ -RAY RADIATION
- 16:40 – 17:00 Axel Kahnt
O15 RADIATION CHEMICAL MODIFICATION OF CARBON
NANODOTS
- 17:00 – 17:20 Isabelle Lampre
O16 EVIDENCE OF AN [AuII, AgI] INTERMEDIATE IN THE
RADIOLYTIC REDUCTION OF GOLD-SILVER
SOLUTIONS
- 19:00 – **DINNER**

MAY 27, Monday

Session 5: RADIATION CHEMISTRY OF MACROMOLECULAR SYSTEMS I

Chair: Chryssostomos Chatgililoglu

Invited lecture

09:00 – 09:30 Christian Schöneich
O17 NOVEL REDOX PROCESSES IN PROTEINS RELEVANT FOR THE DEVELOPMENT OF PROTEIN PHARMACEUTICALS

Contributed talks

09:30 – 09:50 Monique Lacroix
O18 DEVELOPMENT OF NANOCOMPOSITE ACTIVE BIOPOLYMER AND SYNERGISTIC EFFECT WITH GAMMA IRRADIATION TO ELIMINATE FUNGI AND INSECTS IN RICE

09:50 – 10:10 Grigoriy Mun
O19 RADIATION SYNTHESIS OF NOVEL THERMO-SENSITIVE WATER SOLUBLE AND WATER SWELLING COPOLYMERS AND THEIR PHYSICO-CHEMICAL BEHAVIOUR

10:10 – 10:30 Kamila Joanna Szafulera
O20 RADIATION PROCESSING OF DEXTRAN METHACRYLATE - TIME-RESOLVED AND STEADY STATE RADIOLYSIS

10:30 – 10:50 **COFFEE BREAK**

Session 6: RADIATION CHEMISTRY OF MACROMOLECULAR SYSTEMS II

Chair: Tibor Czvikovszky

Invited lecture

10:50 – 11:20 László Szabó
O21 GREEN CARBON FIBER REINFORCED CELLULOSE-BASED POLYMERS: TAILORING FIBER-MATRIX INTERACTIONS

Contributed talks

11:20 – 11:40 László Mészáros
O22 IRRADIATED POLYETHYLENE FIBRES FOR SELF-REINFORCED COMPOSITES

11:40 – 12:00 Róbert Huszánk
O23 ION-INDUCED PRIMARY COLLISION PROCESSES AND SUBSEQUENT CHEMICAL EFFECTS IN POLYETHYLENE UPON H⁺ ION IRRADIATION

12:00 – 12:20 Maolin Zhai
O24 RADIATION SYNTHESSES AND PERFORMANCE OF FLEXIBLE GEL POLYMER ELECTROLYTES

12:20 – 14:00 **LUNCH BREAK**

**Session 7: RADIATION CHEMISTRY OF MACROMOLECULAR SYSTEMS –
NATURAL POLYMERS**

Chair: László Szabó

Invited lecture

- 14:00 – 14:30 Mark Driscoll
O25 RADIOLYSIS OF WOOD SACCHARIDES,
OLIGOSACCHARIDES, POLYSACCHARIDES AND
LIGNIN

Contributed talks

- 14:30 – 14:50 Guermina Burillo
O26 RADIATION MODIFICATION OF CHITOSAN
HYDROGELS WITH N-VINYLCAPROLACTAM AND
ACRYLIC ACID FOR DICLOFENAC DELIVERY
- 14:50 – 15:10 Murat Şen
O27 THE EFFECT OF IONIZING RADIATION ON THE
MECHANICAL PROPERTIES OF NBR ELASTOMERS
REINFORCED BY LIGNIN
- 15:10 – 15:30 Xavier Coqueret
O28 RADIATION-INDUCED MODIFICATION OF
CELLULOSE NANOCRYSTALS FOR OBTAINING
NANOCOMPOSITES AND STIMULI-RESPONSIVE
NANOPARTICLES
- 15:30 – 15:50 **COFFEE BREAK**

**Session 8: KINETICS AND MECHANISM OF RADIATION INDUCED
POLYMERIZATION**

Chair: Piotr Ulanski

Invited lecture

- 15:50 – 16:20 Mohamad Al-Sheikhly
O29 ON THE MECHANISMS AND KINETIC SYNTHESIS OF
POLY(VINYL PYRROLIDONE) NANOGELS BY
IONIZING RADIATION

Contributed talks

- 16:20 – 16:40 Samy Remita
O30 RADIOLYTIC METHOD AS AN ALTERNATIVE
APPROACH FOR THE SYNTHESIS OF
NANOSTRUCTURED CONDUCTING POLYMERS
- 16:40 – 17:00 Teseer Bahry
O31 RADIATION INDUCED SYNTHESIS OF POLY-
THIOPHENE DERIVATIVES IN DICHLOROMETHANE
SOLVENT
- 17:00 – 17:20 Tibor Czvikovszky
O32 3D PRINTING AND RADIATION CHEMISTRY
- 19:00 – **DINNER**

MAY 28, Tuesday

Session 9: ENVIRONMENTAL PROTECTION I

Chair: Suresh Pillai

Invited lecture

- 09:00 – 09:30 Stephen Mezyk
O33 REMEDIATING WASTEWATERS FOR DIRECT REUSE: CHLORINE RADICAL CHEMISTRY IN ADVANCED OXIDATION PROCESSES

Contributed talks

- 09:30 – 09:50 Yongxia Sun
O34 COMPUTER SIMULATION OF NO_x REMOVAL FROM DIESEL ENGINE OFF-GASES UNDER ELECTRON BEAM AND WET SCRUBBER SYSTEM
- 09:50 – 10:10 Jianlong Wang
O35 TEXTILE WASTEWATER TREATMENT USING ELECTRON BEAM TECHNOLOGY IN CHINA
- 10:10 – 10:30 Paul Percival
O36 INVESTIGATION OF H ATOM AND FREE RADICAL BEHAVIOUR IN CLATHRATE HYDRATES OF ORGANIC MOLECULES BY MEANS OF MUON SPIN SPECTROSCOPY
- 10:30 – 10:50 **COFFEE BREAK**

Session 10: ENVIRONMENTAL PROTECTION II

Chair: Stephen Mezyk

Invited lecture

- 10:50 – 11:20 Libing Chu
O37 REMOVAL OF ANTIBIOTICS AND ANTIBIOTIC RESISTANT GENES BY GAMMA IRRADIATION

Contributed talks

- 11:20 – 11:40 Alexandra Folcik
O38 MICROCYSTIN-LR BREAKDOWN AND TOXICITY ALLEVIATION USING ELECTRON BEAM IRRADIATION
- 11:40 – 12:00 Suresh D. Pillai
O39 HIGH ENERGY ELECTRON BEAM TECHNOLOGY FOR EX-SITU REMEDIATION OF PER AND POLYFLUORINATED SUBSTANCES (PFAS)
- 12:00 – 12:20 Yong Liu
O40 DEGRADATION OF REFRACTORY ORGANIC POLLUTANTS IN INCINERATION LEACHATE BY GAMMA IRRADIATION
- 12:20 – 14:00 **LUNCH BREAK**

Session 11: PRACTICAL APPLICATIONS

Chair: Mark Driscoll

Invited lecture

- 14:00 – 14:30 Kenji Takahashi
O41 REGIOSELECTIVE SYNTHESIS OF CELLULOSE ESTER:
APPLICATION OF CARBON13 ISOTOPE FOR EFFICIENT
DETECTION BY ¹³C-NMR

Contributed talks

- 14:30 – 14:50 Gregory Horne
O42 IMPACT OF CHEMICAL ENVIRONMENT ON THE
RADIATION CHEMISTRY OF DI-2-
ETHYLHEXYLBUTYRAMIDE (DEHBA) AND
PLUTONIUM RETENTION
- 14:50 – 15:10 Uliana Pinaeva
O43 ELECTROCHEMICAL DETECTION OF URANYL BY
BIS[2-METHACRYLOYLOXY)ETHYL] PHOSPHATE
GRAFTED PVDF NANOPOROUS MEMBRANE-
ELECTRODES FOR PORTABLE DEVICES
- 15:10 – 15:30 Sandra Cabo Verde
O44 E-BEAM TREATMENT FOR SAFETY AND QUALITY
IMPROVEMENT OF FRESH FOODS
- 15:30 – 15:50 **COFFEE BREAK**

Session 12: INDUSTRIAL APPLICATIONS I

Chair: Vladimir Feldman

Invited lecture

- 15:50 – 16:20 Sophie Le Caër
O45 EX SITU SOLID ELECTROLYTE INTERPHASE
SYNTHESIS VIA RADIOLYSIS OF LI-ION BATTERY
ANODE-ELECTROLYTE SYSTEM FOR IMPROVED
COULOMBIC EFFICIENCY

Contributed talks

- 16:20 – 16:40 Yehuda Eyal
O46 NATURAL ANNEALING OF ALPHA-DECAY-INDUCED
LATTICE DEFECTS IN FUEL-LIKE ACTINIDE DIOXIDES
- 16:40 – 17:00 Evgeny Domarov
O47 ELV SERIES ACCELERATORS FOR INDUSTRIAL AND
SCIENTIFIC APPLICATIONS
- 17:00 – 17:20 Imre Madar
O48 GAMMA IRRADIATORS FOR RESEARCH AND
INDUSTRIAL USE, CHALLENGES IN THE CHANGING
ENVIRONMENT OF RADIATION PROCESSING,
REQUEST TAILORED IRRADIATORS

17:20 – 17:40 Seung Hwa Yoo
O49 SIMPLE AND EFFECTIVE ROUTE TO FABRICATE LOW-COST CARBON FIBERS USING ELECTRON-BEAM IRRADIATION

18:30 – 20:00 **DINNER**

Session 13: POSTER SESSION

20:00 – 22:00

MAY 29, Wednesday

Session 14: APPLICATIONS OF RADIATION

Chair: Kenji Takahashi

Contributed talks

09:00 – 09:20 Dinara Abbasova
O50 DEVELOPMENT OF RADIATION PROCESSING TECHNOLOGY AND THE ROLE OF IAEA

09:20 – 09:40 Alexander Ponomarev
O51 EFFECT OF BOILING ON THE EXCHANGE AND COMBINATION OF RADICALS IN THE RADIOLYSIS OF OXYGEN-CONTAINING LIQUIDS

09:40 – 10:00 Kasinee Hemvichian
O52 AGRICULTURAL APPLICATIONS OF SUPER WATER ABSORBENT PREPARED FROM RADIATION-INDUCED GRAFTING POLYMERIZATION OF ACRYLIC ACID ONTO CASSAVA STARCH: FROM POT TESTS TO FIELD TESTS

10:00 – 10:20 Katarina Marušić
O53 CROSS-LINKING OF SELF-ASSEMBLED MONOLAYERS OF FATTY ACIDS BY IONISING IRRADIATION FOR CORROSION PROTECTION OF METALS

10:20 – 10:40 Jing Peng
O54 RADIATION-INDUCED FUNCTIONALIZATION OF CELLULOSE MICROSPHERE ADSORBENTS FOR Re/Tc REMOVAL

10:40 – 11:00 **COFFEE BREAK**

Session 15: INTERNATIONAL IRRADIATION ASSOCIATION

Chair: Gustavo H.C. Varca

11:00 – 11:20 Gustavo H.C. Varca
iia: TOWARDS ACADEMIC ENGAGEMENT

Lectures of the iia grantees

11:20 – 11:30 Tamon Kusumoto
O55 A TWO-STEP DEGRADATION PROCESS FOR ORGANIC MOLECULES CONTAINING CARBONATE GROUPS EXPOSED TO LOW-ENERGY ELECTRONS

- 11:30 – 11:40
O56 Ilya Sosulin
RADIATION CHEMISTRY OF CHF₃ AND ITS INTERMOLECULAR COMPLEXES: EFFECT OF WEAK INTERACTIONS ON HIGH-ENERGY PROCESSES AT LOW TEMPERATURES
- 11:40 – 11:50
O57 Jun Ma
ULTRAFAST PROCESS IN RADIOLYSIS OF HIGHLY CONCENTRATED NUCLEOTIDE/SIDE SOLUTIONS
- 11:50 – 12:00
O58 Malgorzata Matusiak
RECOMBINATION OF POLYMER RADICALS IN AQUEOUS SOLUTIONS OF POLY(ACRYLIC ACID)
- 12:00 – 13:20 **LUNCH BREAK**
- 13:30 – 18:00 **CONFERENCE EXCURSION**
- 19:30 – 22:30 **CONFERENCE DINNER**

MAY 30, Thursday

Session 16: INDUSTRIAL APPLICATIONS II

Chair: Jay LaVerne

Invited lecture

- 09:00 – 9:30
O59 Celina Horak
HOW THE MICROBIOLOGICAL RECOVERY FACTOR INFLUENCES THE RADIATION STERILIZATION DOSE. ASSOCIATED RISKS

Contributed talks

- 9:30 – 9:50
O60 Dilek Şolpan
RADIOLYTIC DEGRADATION OF CARBARYL BY USING GAMMA AND GAMMA/ HYDROGEN PEROXIDE PROCESSES
- 9:50 – 10:10
O61 Bart Verlinden
THE EFFECT OF IONIZING RADIATION ON A NEW MODIFIED DIGLYCOLAMIDE FOR GROUPED ACTINIDE EXTRACTION
- 10:10 – 10:30
O62 Giuliana Marchesani
IDENTIFICATION OF IRRADIATED DAIRY PRODUCTS BY THE DETERMINATION OF 2-DODECYLCYCLOBUTANONE (2-DCB) WITH HEAD SPACE - SOLID PHASE MICROEXTRACTION (HS-SPME) AND GC-MS
- 10:30 – 11:00 **Closing remarks**

11:30 – **LUNCH**

POSTER SESSION

MAY 28, Tuesday

20:00 – 22:00

- P1** A.D. Volosatova, S.V. Kameneva, V.I. Feldman
RADIATION-INDUCED TRANSFORMATIONS OF CH₃CN AND C₂H₅CN MOLECULES IN NOBLE GASES MATRICES
- P2** P.V. Zasimov, S.V. Ryazantsev, V.I. Feldman
RADIATION-INDUCED TRANSFORMATIONS OF ACETYLENE AND ITS ASTROCHEMICALLY-RELEVANT COMPLEXES AS STUDIED BY MATRIX ISOLATION SPECTROSCOPY
- P3** G. Bubueanu, C. S. Tuta, G. Craciun
OBTAINING OF TRITIATED POLYSTYRENE THIN LAYERS THROUGH RADIO-INDUCED GRAFTING ONTO POLYETHYLENE TEREPHTHALATE FOILS
- P4** I. Cetina, I. Pucić, V. Mohaček Grošev, A. Šantić
γ-IRRADIATED PDMS GEL NETWORKS CURED WITH SELECTED AMINES
- P5** A. Cruz-Gómez, G. Burillo
SYNTHESIS OF PEG AND PNIPAAm INTERPENETRATED POLYMER NETWORK BY GAMMA RADIATION, AS A POTENTIAL TRIDIMENSIONAL SCAFFOLD
- P6** S. Hasegawa, A. Hiroki, Y. Ohta, N. Iimura, A. Fukaya, Y. Maekawa
THERMALLY STABLE GRAFT-TYPE POLYMER ELECTROLYTE MEMBRANES CONSISTING OF POLY (ETHER ETHER KETONE) AND CROSSLINKED GRAFT-POLYMERS FOR FUEL CELL APPLICATIONS
- P7** S. Hasegawa, S. Sawada, S. Azami, T. Hagiwara, A. Hiroki, Y. Maekawa
DEVELOPMENT OF HYDROGEN PERMSELECTIVE POROUS MEMBRANES BY USING RADIATION-INDUCED GRAFT POLYMERIZATION
- P8** G.K. Abilova, R. Salyamov, G.S. Irmukhametova, Zh. Beksultanov, V.V. Khutoryanskiy
DEVELOPING RADIATION TECHNOLOGY FOR PRODUCTION OF CHITOSAN BASED HYDROGEL WOUND DRESSINGS
- P9** E. Kholodkova, A. Bludenko, V. Chulkov, A. Ponomarev
RADIATION-THERMAL APPROACHES TO THE PROCESSING OF COMPLEX POLYMER WASTE
- P10** X. Cui, Huarong Liu
RADIATION SYNTHESIS OF POLYHIPES AS RECYCLABLE MOF CATALYST CARRIER USED IN CATALYTIC OXIDATION OF BENZYLIC C–H BONDS
- P11** E. Manaila, G. Craciun, D.M. Stelescu, D. Ighigeanu
EFFECTS OF ELECTRON BEAM IRRADIATION ON THE MECHANICAL, PHYSICAL AND STRUCTURAL PROPERTIES OF SOME EPDM/CI – BUTYL RUBBER COMPOSITES
- P12** R. Mangazbayeva, L. Agibayeva, D. Shamet, G. Mun
STUDY OF STIMULSENSITIVE BEHAVIOUR OF HYDROGELS BASED ON GELLAN AND ACRYLATE MONOMERS OBTAINED BY RADIATION METHOD

- P13** M. Matusiak, S. Kadlubowski, P. Ulański
RECOMBINATION OF POLYMER RADICALS IN AQUEOUS SOLUTIONS OF POLY(ACRYLIC ACID)
- P14** I. Cetina, I. Pucić, A. Šantić
LIQUID COMPONENT INFLUENCE ON γ -RADIATION RESPONSE OF SOME LOW TEMPERATURE CURED PDMS GELS
- P15** T. Rattanawongwiboon, K. Hemvichian, P. Lertsarawut, P. Suwanmala, S. Chaitasaeng
SYNTHESIS OF CHITOSAN-POLY(ETHYLENE GLYCOL) DIACRYLATE BEADS BY RADIATION-INDUCED CROSSLINKING
- P16** O. Riabukhin, D. Baytimirov, O. Surganov
EVALUATION OF CROSSLINKING IN POLYETHYLENE DURING E-BEAM IRRADIATION
- P17** S. Mesquita, T. Zaharescu, L.G.A. Silva
IONIZING RADIATION EFFECT ON THE PROPERTIES OF DGEBA/EPDM COMPOUNDS
- P18** Q. Zhang, J. Chen, M. Wang, X. Ge
PHOTOCATALYTIC PROPERTIES OF BISMUTH TUNGSTATE@POLY(3, 4-ETHYLENEDIOXYTHIOPHENE) PREPARED BY GAMMA RAY RADIATION
- P19** S. Kadlubowski, P. Sawicki, S. Sowinski, K. Halagan, M. Kozanecki, P. Ulański
THE ROLE OF DIFFUSION IN SYNTHESIS AND PHYSICO-CHEMICAL PROPERTIES OF POLYMER HYDROGELS - SIMULATIONS AND EXPERIMENTS
- P20** M. Wało, J. Sadło, G. Przybytniak
ESR STUDY OF GAMMA IRRADIATED POLY(ETHER-URETHANE)S
- P21** B. Yermukhambetova, R. Mangazbayeva, E. Shatabaeva, P. Urkimbayeva, R. Shaikhutdinov, G. Mun
RADIATION SYNTHESIS AND CHARACTERIZATION OF NOVEL POLYELECTROLYTE HYDROGELS OF DIFFERENT TYPES BASED ON VINYL ETHERS
- P22** S. Park, S. Jung, S.H. Yoo
ELECTRON-BEAM IRRADIATION ON POLYPROPYLENE BASED CARBON FIBER REINFORCED THERMOPLASTIC FOR ENHANCED MECHANICAL AND THERMAL PROPERTIES
- P23** G. Zhang, N. Chen
SYNERGISTIC PHOTO-ACTUATED DRUG DELIVERY AND MR IMAGING BASED ON AMPHIPHILIC STAR BLOCK COPOLYMER MICELLES
- P24** F. Di Maria, Mattia Zangoli, M. D'Angelantonio
PREPARATION OF STERILE POLY-3-HEXYLTHIOPHENE NANOPARTICLES BY USING GAMMA IRRADIATION
- P25** T. Jurkin, I. Marić, Nataša Šijaković Vujičić, A. Pustak, M. Gotić
ONE-STEP SYNTHESIS OF POLY(ETHYLENE OXIDE)/GOLD NANOCOMPOSITE HYDROGELS AND SUSPENSIONS USING γ -IRRADIATION
- P26** I. Marić, A. Pustak, N. Šijaković Vujičić, M. Gotić, T. Jurkin

- THERMAL, MAGNETIC AND RHEOLOGICAL PROPERTIES OF POLY(ETHYLENE OXIDE)/IRON OXIDE NANOCOMPOSITE HYDROGELS SYNTHESIZED USING ONE-STEP γ -IRRADIATION TECHNIQUE
- P27** I. Marić, A. Pustak, M. Gotić, T. Jurkin
QUANTITATIVE DETERMINATION OF Fe(II) IN RADIOLYTICALLY SYNTHESIZED MAGNETIC IRON OXIDE NANOPARTICLES
- P28** T.S. Balogh, S. Kadlubowski, G.H.C. Varca, A.B. Lugão
MORPHOLOGICAL CHARACTERIZATION OF PVP NANOGELS PREPARED USING ELECTRON-BEAM RADIATION
- P29** G.N. Fazolin, G.H.C. Varca, L.F. de Freitas, B. Rokita, S. Kadlubowski, A.B. Lugão
SIMULTANEOUS INTRAMOLECULAR CROSSLINKING AND STERILIZATION OF PAPAINE NANOPARTICLES BY GAMMA RADIATION
- P30** G.N. Fazolin, G.H.C. Varca, A.B. Lugão
STABILITY ASSESSMENT OF PAPAINE-BASED NANOCARRIERS CROSSLINKED BY RADIATION
- P31** K. Zeng, M. Wang, X. Ge
SYNTHESIS OF FLUORESCENT ZINC-ORGANOSILICA NANOPARTICLES AS GENE TRANSFECTION CARRIERS BY GAMMA-RAY RADIATION
- P32** D. Aksüt, B. Karaağaç, M. Şen
THE EFFECT OF IONIZING RADIATION ON THE TEMPERATURE SCANNING STRESS RELAXATION PROPERTIES OF NBR ELASTOMERS REINFORCED BY LIGNIN
- P33** D. Adliene, J. Laurikaitiene, J. Puiso, B. G. Urbonavicius, E. Jaselske
NEW APPLICATION OF POLYMER GELS IN MEDICAL RADIATION DOSIMETRY
- P34** V. Fugaru, C. Postolache, A. Celarel, C. Cenusă, C. S. Tuta
EVALUATION OF DOSIMETRY SYSTEMS FOR RADIOBIOLOGICAL RESEARCHES AT ELI-NP MAGURELE
- P35** F. Albota, S. Vasilca, E. Pincu, P. Oancea, A. Raducan, I. Stanculescu
PHYSICO-CHEMICAL STUDIES OF HIGHLY DEGRADED CULTURAL HERITAGE WOOD CONSOLIDATED THROUGH GAMMA IRRADIATION
- P36** V. Morgunov, P. Hybler, M. Zachar
GEANT4 USAGE VALIDATION FOR X-RAY TREATMENT OF WOODEN CULTURAL HERITAGE ARTEFACTS
- P37** D. Chmielewska, U. Gryczka, W. Migdał, J. Sadło, K. Kopeć
ELECTRON BEAM FOR PRESERVATION OF BIODETERIORATED CULTURAL HERITAGE PAPER-BASED OBJECTS
- P38** K. Marušić, I. Pucić, M. Šegvić Klarić, B. Mihaljević
GAMMA-RADIATION DECONTAMINATION OF PAPER BASED CULTURAL HERITAGE – SHOULD THE RECOMMENDATIONS BE SUPPLEMENTED?
- P39** V. Moise, S. Vasilca, A. Baltac, C. Pintilie, M. Virgolici, M. Cutrubinis, C. Kamerzan, D. Dragan, F. Albota, S. Maier
PHYSICO-CHEMICAL CHARACTERIZATION OF LYOPHILIZED COLLAGENIC FORMS STERILIZED WITH GAMMA RADIATION

- P40** U. Gryczka, W. Migdał, S. Bułka, Z. Zimek, J. Sadło, D. Chmielewska-Śmietanko
APPLICATION OF LOW ENERGY ELECTRON BEAM FOR MICROBIAL DECONTAMINATION OF FOOD PRODUCTS
- P41** U. Gryczka, W. Migdał, S. Bulka, M. Ptaszek, A. Jarecka-Boncela
HORTICULTURE APPLICATION OF LOW ENERGY ELECTRON BEAM TO PROTECT FLOWER BULBS AGAINST PLANT PATHOGENS
- P42** G.P. Guzik, J. Michalik
STUDY ON D-MANNOSE RADICAL UTILIZED FOR DETECTION OF RADIATION TREATMENT OF FRUITS
- P43** O. Tugay, S. Brinkevich, I. Edimecheva, A. Sladkova
RADIATION-INDUCED TRANSFORMATIONS OF 2-[18F]FLUORODEOXYGLUCOSE AND MODEL COMPOUNDS
- P44** A. Bezsényi, Gy. Sági, M. Makó, Gy. Palkó, T. Tóth, L. Wojnárovits, E. Takács
ENHANCING THE BIOLOGICAL REMOVAL OF PHARMACEUTICALS FROM WASTEWATER BY IRRADIATION
- P45** V.S.G. Garcia, M.C.C. Pereira, J. M. Rosa, S.I. Borrelly
TOXICITY AND COLOR REDUCTION ON TEXTILE EFFLUENT - REACTIVE RED 239 BY ELECTRON BEAM IRRADIATION
- P46** E. Illés, A. Mizrahi, V. Marks, D. Meyerstein
 $\cdot\text{OH}$, $\text{Fe}^{\text{IV}}=\text{O}_{\text{aq}}$ AND $\text{CO}_3^{\cdot-}$ AS PRODUCTS OF THE FENTON REACTION IN AQUEOUS SOLUTIONS UNDER DIFFERENT CONDITIONS: IN NEUTRAL SOLUTIONS $\cdot\text{OH}$ ARE NOT FORMED
- P47** D. Jarmužek, I. Džeba, S. Kazazić, D. Pluskota-Karwatka, B. Mihaljević
GAMMA RADIATION IMPACT ON CHEMICAL STABILITY OF SOME STATINS IN WATER
- P48** M. Náfrádi, T. Hlogyik, L. Farkas, K. Kovács, T. Alapi, K. Hernádi, L. Wojnárovits, E. Takács
APPLICATION OF COUMARIN AND COUMARIN-3-CARBOXYLIC ACID FOR THE DETERMINATION OF HYDROXYL RADICALS DURING DIFFERENT ADVANCED OXIDATION PROCESSES
- P49** A.G. Chmielewski, M. Sudlitz
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