



2ND INTERNATIONAL CONFERENCE OF YOUNG SCIENTISTS  
“CHEMISTRY AND CHEMICAL TECHNOLOGY” (CCT-2011)  
NOVEMBER 24–26, 2011, LVIV, UKRAINE

## CONFERENCE PROGRAMME

### THURSDAY, NOVEMBER 24

#### 08:30 – REGISTRATION OF PARTICIPANTS STARTS

*In front of the Assembly hall of the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4)*

#### 09:00 - 10:30 – LVIV STUDENT SHORT FILM RETROSPECTIVE

*Assembly hall of the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4).*

#### 10:30 - 12:00 – CEREMONIAL OPENING OF THE FESTIVAL OF SCIENCE

*Assembly hall of the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4).*

#### 12:00 - 13:00 – LVIV POLYTECHNIC TOUR

#### 13:00 - 14:00 – LUNCH

*Canteen in the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4, basement).  
Alternatively – University canteen (Karpins'kogo street 6)*

#### 14:00 – 19:00 – CONFERENCE SESSIONS

##### SESSION 1. ORGANIC CHEMISTRY AND TECHNOLOGY

*Room 240, 8<sup>th</sup> building of Lviv Polytechnic National University (Svyatoho Yura square, 2)*

*Voronchak Taras, Nykulyshyn Irena.* The investigation of methods of cooligomers obtaining from the mixture modeling a composition of C<sub>9</sub> fraction of diesel fuel pyrolysis liquid products

*Polyova Irina, Marshalok Galina, Yatchyshyn Josyp.* Synthesis of allyl-1,3,4-trimethylcyclohex-3-encarboxylate by reaction of Diels-Alder

*Kashcheyev Oleksandr, Glikina Iryna, Kudryavtsev Sergii.* Catalytic Cracking of Vacuum Gas Oil Using AnCVB Technology with Si/Zr Catalyst

*Shershniov Sergey, Glikina Irina.* Particularities of the Hydrocarbons Synthesis by Aerosol Nanocatalysis Technology

*Mudryy Sergiy, Reutskyy Viktor, Ivashchuk Oleksandr.* Sergey Shershniov, Irina Glikina. Particularities of the Hydrocarbons Synthesis by Aerosol Nanocatalysis Technology Influence of Oxygen-Containing Additives on Liquid-Phase Oxidation of Cyclohexane

*Socha Jan, Jasiński Radomir, Barański Andrzej.* Molecular mechanism of Diels-Alder reaction between cyclopentadiene and E-2-arylnitroethenes in the light of DFT computational study

*Mikulska Maria, Barański Andrzej.* Kinetic of the [2 +3] cycloaddition of Z-C-aryl-N-phenylnitrones with 1-bromo-1-nitroethene

*Jasiński Radomir, Jasińska Ewa, Mikulska Maria.* Quantumchemical study of the [2+3] cycloaddition of nitroethene with (Z)-C,N-diphenylnitrene

*Subtelnyy Roman, Huminiyovych Liliya, Romankiv Iryna, Kurtash Yuriy.* Fractionation of cooligomers obtained on the base of a mixture of hydrocarbons C<sub>8</sub>-C<sub>9</sub>

*Barsova Zoya, Iluykha Nickolay, Cwhanovskaya Irina, Skorodumova Olga.* Stability Study of Suspensions on the Basis of Iron-Enriched Bioactive Additive

*Bondarenko Bohdan, Frasyuniuk Mykhailo, Bondarenko Svitlana.* Synthesis of Lupinin Derivatives in Flavonoids Series

*Polivyany Anton, Chobit Maksim.* Research of influence of surface modification of filler and the nature of surfactants on rheological properties of paste-like polymeric compositions

*Nebesnyi Roman, Ivasiv Volodymyr, Zhyznevskiy Vyacheslav, Dmytruk Iulia.* Kinetic regularities of the aldol condensation reaction of propionic acid with formaldehyde on the B<sub>2</sub>O<sub>3</sub> – P<sub>2</sub>O<sub>5</sub> – WO<sub>3</sub>/SiO<sub>2</sub> catalyst in the gas phase

*Glikin Marat, Kudryavtsev Sergiy, Mahmmod Saif.* Features of Methane Steam Reforming Over NiO Aerosol Nanoparticles

*Ohar Mariya, Zolobko Oksana, Shtapenko Oksana, Fedorova Svitlana, Stetsyshyn Yuriy.* A construction of the grafted nanolayers on glass surface with high proliferation index of mouse black cancer cells line B16F10

*Prygorodov Pavlo, Glikin Marat, Kutakova Diana.* Synthesis of Vinyl Acetate by Aerosol Nanocatalysis Technology

*Kurtash Yuriy, Subtelnyy Roman, Kichura Daria, Dzinyak Bogdan.* Investigation of influence of nature initiator cooligomerization of unsaturated hydrocarbons of C<sub>9</sub> fraction

*Naumenko Maria, Bashtanyk Petro, Burmistr Mikhail.* Constructional properties of thermoplastic polymers in compression under load tire products

- Dilek Alagöz, Yıldırm Deniz, Tükel S. Seyhan.** Enzymatic Synthesis of (R)-Mandelonitrile by Using Cross Linked Enzyme Aggregates of *Prunus cerasifera* Hydroxynitrile Lyase
- Truong Thi Dieu Hien, Diep Thanh Truyen.** Rapid identification and quantitative analysis of saponin oleanolic acid from root of *talinum patens* by thin layer chromatography and uv-vis spectroscopy
- Heshmatollah Alinezhad, Mahmoud Tajbakhsh and Mahboobeh Zare.** Synthesis of perimidines via sulfonated ordered mesoporous carbon (CMK-5-SO<sub>3</sub>H) as an efficient and eco-friendly catalyst
- Kurtash Yuriy, Subtelnyy Roman, Kichura Daria, Dzinyak Bogdan.** Investigation of influence of nature initiator cooligomerization of unsaturated hydrocarbons of C<sub>9</sub> fraction
- Karkhut Andrew, Bolibrukh Christina, Kovalchuk Oleksiy, Kudrinetska Anastasia, Yakymiv Lubov, Petrushka Katerina, Polovkovych Svyatoslav.** Application of substituted acryloyl chlorides in the synthesis of new thioopyranothiazolidone derivatives of 1,3,5-triazine
- Kovalchuk Igor, Zhigadlo Evgeniya, Gaidai Oleksandr, Levandovskiy Igor, Shubina Tatyana.** D<sub>3</sub>-trishomocubylamines as new Influenza M2 channel inhibitors
- Kurpieva Helena, Savonik Ludmula, Sklyarova A.S., Shamota T.V., Rodionov V.N.** Synthesis of 6-amineethyl-6-aminemethylpentacyclo-[5.3.0.0<sup>2,5</sup>.0<sup>3,9</sup>.0<sup>4,8</sup>]decan
- Sklyarova A.S., Mishura A.M., Shamota T.V., Dubina D.N., Rodionov V.N., Fokin A.A.** Synthesis of some pentacyclo[6.3.0.0<sup>2,6</sup>.0<sup>3,10</sup>.0<sup>5,9</sup>]-undecane (D<sub>3</sub>-trishomocubane) amino-derivatives
- Solod Mykola, Melnyk Stepan.** Technological aspects of obtaining the asymmetric diesters of adipic acid
- Parnyakov Oleksiy, Hrabovska Olena.** Study of Mechanism of Quercetin Sorption by Porous Starch

## SESSION 2. INORGANIC CHEMISTRY AND TECHNOLOGY

Room 101, 9<sup>th</sup> building of Lviv Polytechnic National University (Svyatoho Yura square, 9)

- Puzyrna Liubov, Pshinko Galyna.** Stillage Bottom Salts Immobilization in Ceramic Matrices
- Plashykhin Sergiy, Beznosyk Yuriy.** Bench Test of Cyclofilter for Collecting Ash from Solid-Fuel Boiler
- Barsova Zoya, Iluykha Mykola, Tsyukhanovska Iryna.** Thermodynamic and Kinetic Analysis of Reaction of FeO-Fe<sub>2</sub>O<sub>3</sub> Formation
- Tkachenko Anastasiya, Beznosyk Yuriy.** Experimental Study and Modelling of Autothermal Three-Reforming Process
- Guminilovych Ruslana, Shapoval Pavlo, Yatchyshyn Yosyp, Kusnezh Viktor.** Determination of the thickness of semiconductor thin films CdS by inversion voltammetry method
- Yaroshenko Kostyantyn.** Oxidation of Organic Components of Liquid Radioactive Wastes
- Petryshyn Roman, Yarenko Zinovij, Soltys Mykhaylo.** Electrochemical properties of aqueous suspensions of modified titanium dioxide in solution polymethacrylic acid
- Koliabina D., Dmitrieva S., Koliabina I.** Kinetic Modelling of <sup>137</sup>Cs Sorption on Bentonite
- Skydanenko Maksym, Sklabinskyi Vsevolod, Artyukhov Artem, Ivaniya Andrey.** Determination of Influence of Physicochemical Properties of the Medium on the Quality of Monodisperse Microspheres
- Koval Iryna, Kondratovych Orest.** Combined water disinfection under acoustic cavitation conditions
- Kityk Anna, Protsenko Vyacheslav, Danilov Felix.** Structure of double electrical layer on Pb electrode in methanesulphonic solutions
- Regulska Elżbieta, Karpińska Joanna.** Heterogeneous photocatalysis for selected atypical antipsychotic removal from river waters
- Breczko Joanna, Płońska-Brzezińska Marta, Winkler Krzysztof, Echeگویen Luis.** Carbon nano-onions in composites: properties and application
- Brovkina Julija, Shulga Galia, Ozolins Juris.** Dissolved Organic Matter Removal by Coagulation Using Aluminium Sulphate
- Rubanova O.M., Holeus V.I., Kozyrieva T.I.** On the Development of Chemically Stable Titanium-Containing Finishing Enamels
- Nikolaienko Tymofii, Bulavin Leonid, Hovorun Dmytro.** Interconnection Between Conformers of 2'-deoxyribonucleotides in Free and Crystal State
- Pavlyuk Maria.** Heterometallic M/V (M = Cu, Co) complexes as precursors for binary oxide systems
- Atamanyuk V.M., Symak D.M.** Filter drying fine mineral materials
- Barna Iruna, Atamanuk Volodumur.** Kinetics of drying an individual granules of slag gravel
- Tyzhbir Galyna, Sabadash Vira, Humnytsky Jaroslav.** Statics and kinetics of adsorption compounds on synthesized sorbents based on fly ash TPP
- Iovleva Yuliya, Zaichuk Alexander.** The research of changing regularity optical-colour characteristics of composition of system CaO-Al<sub>2</sub>O<sub>3</sub>-TiO<sub>2</sub> by introduction of chromium oxide
- Kasian Olga.** Anodic oxidation of Cr<sup>3+</sup>-ions at composite TiO<sub>x</sub>/PtO<sub>y</sub> electrodes
- Pivovarov Oleksandr, Vorobyova Margaryta.** Methods of Stabilization of Activated Solutions
- Shylin Sergii.** Spin Transitions in Iron(II) Complexes with Ligands of the 1,2,4-Triazole Family

## FRIDAY, NOVEMBER 25

10:00 – 13:00 – CONFERENCE SESSIONS

### SESSION 1. ORGANIC CHEMISTRY AND TECHNOLOGY

Room 240, 8<sup>th</sup> building of Lviv Polytechnic National University (Svyatoho Yura square, 2)

- Sharapa D.I., Zhygadlo E.Yu., Levandovskiy I.A., Shubina T.E.** A new preparative method for synthesis of 9- and 9,10- derivatives of C<sub>8</sub>-trishomocubane
- Shamota T.V., Shubina T.E., Kushko A.O.** Chiral adamantane containing 1,3,2-oxazaborolidines as the catalysts for asymmetric ketone reduction
- Khomenko Olena, Budishevska Olga, Varvarenko Sergij, Voronov Stanislav.** Synthesis of Amphiphilic surfactants based on pyromellitic dianhydride
- Khomenko Olena, Budishevska Olga, Vostes Volodymyr.** Colloidal silver obtaining in solutions of amphiphilic surfactants
- Borzenkov Mykola, Hevus Orest.** Novel surface active monomers based on derivatives of  $\gamma$ -hydroxybutanoic acid

- Donchak Volodymyr, Ripak Liubov, Harhay Khrystyna, Moskal Oresta.** Synthesis of Aminoperoxides on the Base of Ethanolamines
- Klimko Yu. Ye., Yekimova A.A.** Acyliminium Salts as Reagents in C- and N-Alkylation Reactions
- Vasykvevych Oleksandr, Koshchii Iryna, Mykhalchuk Kostyantyn.** Comparative Analysis of the Parameters of Solvents Ionizing Power
- Chobit Maxym, Shevchuk Oleg, Tokarev Viktor, Nadashkevich Zoryana.** The formation of polymer layers on the surface of dispersed hydroxyapatite
- Riy Ulyana, Dutka Volodymyr, Aksimentyeva Olena.** Synthesis and Electrical Properties of Styromal – Polyortotoluidine Composites
- Varvarenko Serhiy, Puzko Natalia, Samaryk Volodymyr, Nosova Natalya, Tarnavchik Ihor, Dron Iryna, Voronov Stanislav.** Synthesis of glutamic acid and diols based polyesters
- Galysyn Oksana, Melnyk Jourij, Prusak Mykola, Skorokhoda Volodymyr.** Regularities of Hydrogel Composite Materials Obtaining based on Copolymers of Methacrylic Esters and Polyvinylpyrrolidone
- Melnyk Jourij, Gil Nazar, Dzyaman Iryna.** Hydrogel membranes with antithrombogenic properties
- Semenyuk Nataliya, Galysyn Oksana, Torhan Andriy, Skorokhoda Volodymyr.** Hydrogel Materials with Organic and Inorganic Fillers
- Semenyuk Nataliya, Dudok Galyna, Chopyk Nataliya, Zhura Andriy, Kostiv Ulyana.** Solvent Effect on Suspension Polymerization of Methacrylic Esters in the Presence of Polyvinylpyrrolidone
- Śmist Małgorzata, Kwiecień Halina.** Synthesis of aryl-fused 1,4-oxazines and 1,4-oxazepines
- Sarrafi Yaghoob, Sadatshahabi Marzieh, Alimohammadi Kamal.** Synthesis of spirooxindolopyrrolizidines through 1,3-dipolar cycloaddition of azomethine ylide with aryl vinyl ethers and vinyl sulfides
- Adaszyńska Michalina, Swarczewicz Maria.** The possibilities of using essential oils as an active ingredients or preservatives in cosmetic products
- Michorczyk Piotr, Kuśtrowski Piotr, Kolak Agnieszka, Żurek Krzysztof.** Preparation, characterization and catalytic performance of mesoporous Ga and Ga-Al oxides
- Zeńczak Kamila, Michorczyk Piotr, Ogonowski Jan.** Investigations of VO<sub>x</sub>/SBA-15 catalytic performance in propane dehydrogenation with CO<sub>2</sub>
- Bilgin Ramazan, Seriner Ramazan, Serkan Yalcin M.** Partial purification of catalase from the cucumber (*cucumis sativus*)
- Kumar Sanjay, S. Sohal Harvinder, Goyal Arun.** K<sub>2</sub>(SO<sub>4</sub>)<sub>2</sub>·12H<sub>2</sub>O: An efficient and reusable catalyst for the synthesis of quinolines, via Friedländer annulation, under solvent free conditions
- Babzadeh Mirzaagha, Naserian Sona.** Investigation of neighbour group effects in releasing of 5-aminocyclic acid from acrylic polymeric prodrugs

## SESSION 2. INORGANIC CHEMISTRY AND TECHNOLOGY

Room 101, 9<sup>th</sup> building of Lviv Polytechnic National University (Svyatoho Yura square, 9)

- Kovalskiy Yaroslav, Polyova Irina, Fedevich Maria, Marshalok Galina.** Quantum chemical research of [4+2]-cycloaddition mechanism of 2,3-dimethylbuta-1,3-diene with methacrylic acid
- Golembiowski Anton, Zhdanyuk Nataliya.** Synthesis of sorbents based on layer-banded silicates for removal of chromium from water
- Matsyuk Natalia, Kovalchuk Eugen.** Zinc Oxide Surface Functionalization by Phenylidiazonium Tetrafluoroborate
- Shytko Elena, Bolshoy Dmitry, Pykhtieva Elena.** Migration of metals in the environment during combustion of polymeric materials
- Selkin Volodymyr, Kopytkov Volodymyr, Sosnovski Sergey, Korolovych Volodymyr.** The research of abrasive wear in the slotted compactions of the oil-think pumps
- Korolovych Volodymyr, Grigoriev Andrey, Derzhypolskyi Andry, Kuzovkov Yuriy, Markov Igor, Moroz Kostjantin, Melenevskiy Dmytrij, Kopytkov Volodymyr.** Characterization of water system with carbon nanotubes using dynamic light scattering
- Markiewicz Karolina, Rynkiewicz Justyna, Niemrowicz Katarzyna, Z. Wilczewska Agnieszka.** Synthesis and characterization of aminosilane-coated superparamagnetic iron oxide nanoparticles (SPIONs)
- Jahangiri Lahkani Marjane, Ghassemi Ghassem, Sohrabi Nasrin, Rasooli Nahid.** Ab initio study of metalosalen complexes binding to DNA
- Nikolaienko Tymofii, Bulavin Leonid, Hovorun Dmytro.** Physical Properties of Canonical 2'-deoxyribonucleotides
- Tsybaliuk Kyrylo, Denga Yuriy, Antonovich Valeriy.** Optimization of the stage of polycyclic aromatic hydrocarbons extraction from biota
- Khudomaka Kateryna, Minakova Nataliya, Kyslychna Rayisa, Bilyy Yakiv.** On the Possibility to Obtain Bright Coloured Coatings Based on Na<sub>2</sub>O–CaO–TiO<sub>2</sub>–SiO<sub>2</sub> Glass 242
- Yashchuk Lyudmyla.** Evaluation of Marelli LLC Impact on Cherkasy Atmosphere
- Kubay Yulia, Demchyna Oksana, Golovchuk Myroslav, Khaburs'ky Yaroslav, Yevchuk Iryna, Pokutsa Olexandr.** The use of V-containing catalyst prepared by sol-gel technique in the process of “mild” liquid-phase oxidation of cyclohexane
- Demidyuk Katerina, Bubel Tatyana.** The sun protection factor research of some natural products and production of sunscreens containing them
- Mnykh Roman, Znak Zenovij, Savchuk Ludmyla.** Activated Calcium-Containing Reagents in Wastewater Treatment Technologies

### 13:00 - 14:00 – LUNCH

Canteen in the 1st building of Lviv Polytechnic National University (Karpins'kogo street 2/4, basement)  
Alternatively – University canteen (Karpins'kogo street 6)

### 14:00 - 19:00 – CONFERENCE SESSIONS

## SESSION 1. ORGANIC CHEMISTRY AND TECHNOLOGY

Room 240, 8<sup>th</sup> building of Lviv Polytechnic National University (Svyatoho Yura square, 2)

- Mitlenko O.G., Sharapa D.I., Troyanchuk D.D., Levandovskiy I.A., Shubina T.E.* Cookson diketone derivatives in reactions with chlorosulfonic acid
- Nawasreh Mansour, Eldamen Murad.* New Transformation Methods of  $\Delta^{14,15}$  Bond Applied to Certain Cephalostatin Analogue
- Solovyan A.A., Sharayev K.A., Kapran L.A., Gaidai A.V., Levandovskiy I.A.* Synthesis and separation of bisubstituted derivatives of pentacyclo[6.3.0<sup>2,6</sup>.0<sup>3,10</sup>.0<sup>5,9</sup>]undecane
- Pysanenko D.A., Klymko Yu.E., Dubska S.V.* Synthesis of 3-(N-arylcarboxyamido)-N-benzylpyridine halogenides
- Barabash Anastasia, Nhan N. Huu, Diduh Nataliya, Butova Ekateriva, Fokin Andrey A.* Preparative Synthesis of Vinyl Diamondoids
- Barabash Anastasia, Biletskiy Bogdan, Maksimiyuk Yuri, Butova Ekaterina, Fokin Andrey .* Steric Bulkness of Diamondoidyl Substituents
- Pyshyev Serhiy, Prysiazhnyy Yuriy.* Duration Effect on the Process of Oxidizing Desulphuration of Fat Coal
- Iatsyshyn Oksana, Chervinskyi Taras, Zherdyeva Ksenya.* Structuring of the epoxy-oligoester compositions in the presence of methacryl-containing peroxide oligomer
- Nikitishyn Eugene, Oleg Shevchuk, Chaykivskyy Taras.* Formation of colloidosomes on the basis of peroxidized Pickering-emulsions
- Hrynychuk Yuriy, Hrynychuk Volodymyr.* Investigation of thermal stability of epoxy rapeseed oil
- Popadyuk Andriy, Solomko Nadia, Budishevska Olga, Varvareno Sergiy, Vostrys Volodymyr, Voronov Stanislav.* Optimization of complex experiments by Box-Wilson method
- Borova Solomiya, Buben Ruslana, Serdiuk Vitalii, Tokarev Viktor.* Synthesis of heterofunctional acrylic copolymers for microcapsulation of hydrocarbons
- Astakhova Olena, Mykhailiv Olena, Stryzhachuk Alina and Pysh'yev Serhiy.* Investigations of the reaction between adipic acid and ED-24 epoxy resin
- Shulyakova Mariya, Konon Anastasiya, Sofilkanych Anna, Kyvatkivska Irina, Pirog Tetyana.* Ways of improving the technology of synthesis of surface-active substances of Rhodococcus erythropolis EK-1 and Acinetobacter calcoaceticus K-4
- Kryvosheya Alyona, Vashkevych Olena.* Amino Acid Content as the Most Adequate Indicator of Fruit Juice Quality
- Duda Olga, Stepnevska Yana, Vashkevych Olena.* Identification and Quantitative Analysis of Bioflavonoids by Paper and Thin Layer Chromatography Methods
- Ogar Galuna, Shevchuk Oleg, Tokarev Viktor.* Investigation of the adsorption of macrophotoinitiator with the pendant benzoin moieties onto TiO<sub>2</sub> surfaces
- Shvabiuk Orest, Palianytsia Liubov, Berezovska Nataliya, Kosiv Ruslana.* Influence of nutrition on the dynamics of fermenting mash from spelta
- Pankiv Nataliya, Palianytsia Liubov, Berezovska Nataliya, Kosiv Ruslana, Shvabiuk Orest.* Influence of low temperature on morphological properties of yeasts
- Shapoval O., Mitina N., Miahkota O., Zaichenko A., Vistovskiy V., Voloshinovskii A.* Template synthesis of luminescent nanoparticles LnPO<sub>4</sub> with the functional oligoperoxide shell

## SESSION 2. INORGANIC CHEMISTRY AND TECHNOLOGY

*Room 101, 9<sup>th</sup> building of Lviv Polytechnic National University (Svyatoho Yura square, 9)*

*Mihailuta Olena, Alekseev Evgen, Koleda Volodimir, Kluchnik Evgenia.*

Features of the dehydration processes secondary kaolins different deposits of Ukraine - perspective raw material for the manufacture of метаксаолінів

*Ukhanyova Marina.* Radiation-chemical estimation of technogenic materials

*Stadnyk Roman, Matsiyovska Mariya.* Oil extraction/intensification process from Hybrid Amaranth seeds

*Chverenchuk Andrii, Kiriyanova Svitlana, Solokha Ivan, Pona Myron.* Technological Aspects of Zeolite Synthesis from Kaoline Raw Materials

*Ivanyshyn S.I., Demianchuk R.V.* Crystallization of Cu (II) thiosulphate in solution of polymers

*Mosiuk M.I., Atamanyuk V.M., Kindzera D.P.* Filter drying crushed "energy" willow

### 17:00 - 19:00 – OPEN INTERNATIONAL ROUND TABLE

«MODERN PROBLEMS OF CHEMICAL TECHNOLOGY»

*Room 202, 8<sup>th</sup> building of Lviv Polytechnic National University (Svyatoho Yura square, 2)*

### 19:00 – INFORMAL MEETING (CLOSING PARTY)

*University canteen (Karpins'kogo street 6).*

## SATURDAY, NOVEMBER 26

### EXCURSIONS DAY

For more information please visit the official conference website – <http://cct.ukrscience.org>