

NEW TEXTBOOK "MATERIALS: INTRODUCTION
AND APPLICATIONS" BY WITOLD BROSTOW &
HALEY E. HAGG LOBLAND, JOHN WILEY & SONS 2017

Michael Bratychak^{1, *}, Olena Shyshchak¹

This book is different from all other textbooks of Materials Science and Engineering for several reasons. Prof. Ulf W. Gedde, The Royal Institute of Technology, Stockholm, writes in his Foreword: "MSE is based on real life and has to be connected to it repetitively – this is a very important feature of this textbook". He also says: "... several classes of materials have "equal rights ...".

Indeed, there are classes of materials, properties and even a state of matter discussed by W. Brostow and H. Hagg Lobland that are not discussed in other textbooks. Here is a possibly incomplete list:

- * glassy metals. While other MSE textbooks have much space devoted to metals, they talk about crystalline metals – known for thousands of years. Glassy metals have better mechanical properties and higher corrosion resistance than crystalline ones – but they are ignored by most other textbooks.

- * petroleum, natural gas, coal, and other organic raw materials. There is a chapter on this class of materials. The fact that the petroleum industry has been created in Lviv by Ignacy Lukasiewicz, that Lviv was therefore the first city in the world with modern street lamps is noted. The fact that the first petroleum refinery in the world was created in Drohobych and is still in operation is noted also. This while other textbooks of MSE do not even have the words "petroleum" or "oil" in their subject indexes.

- * quasi-crystals discovered by Daniel Shechtman (Nobel prize in Chemistry 2011) are discussed in this textbook but not in any other one.

- * smart materials, including liquid crystals, there is a chapter on this class of materials. If discussed at all in other MSE textbooks, there is less than one page devoted to them.

- * there is a chapter on surface behavior and tribology, which includes friction, scratch resistance, wear, also dry oxidation and corrosion – treated from a

common point of view. This is important since annual economic losses of industry because of wear of moving parts are larger than the losses due to corrosion. Other MSE textbooks do not even have words "wear", "friction" or "scratch resistance" in their subject indexes.

- * plasma – the fourth state of matter – ignored in other textbooks.

- * there is a chapter on thermodynamics which explains the Zeroth, First and Second Law, no need for the Third Law, also the concept of Negative Temperatures. Thermodynamic potentials are explained, including the Landau potential so named after Lev Landau of Harkiv, a Nobel laureate in Physics. There is also a separate chapter on thermodynamics properties such as thermal conductivity and thermal expansivity.

- * there is a chapter on structures of crystals and another one on structures on non-crystals. The most important in the latter are the Voronoi polyhedra – so named after Hrihory Voronoi born in Zhuravka near Kyiv. Other textbooks have a chapter on crystal structures, sometimes also a chapter on crystal defects, but no chapters on non-crystals. Non-crystal structures are discussed in other MSE textbooks on one page, if at all.

- * a chapter on biomaterials – compared with one paragraph or nothing in other textbooks.

- * a chapter on materials testing and standards also absent in other textbooks.

The textbook under review pays clearly more attention to science and engineering originating in Ukraine than other textbooks. This pertains not only to textbooks of Materials Science and Engineering. The examples named above are not the only ones. Each chapter has a motto. Thus, the motto of Chapter 1 is the inscription on the Library building of Lviv Polytechnic National University.

¹ Lviv Polytechnic National University
12, S.Bandery St., 79013 Lviv, Ukraine

* mbratychak@gmail.com

© Bratychak M., Shyshchak O.

THE 5th INTERNATIONAL CONFERENCE ON POLYMER
PROCESSING AND CHARACTERIZATION (ICPPC-2017)*Jozef Haponiuk¹, **

The 5th International Conference on Polymer Processing and Characterization (ICPPC-2017) was organized on September 27–29, 2017 at the Chemical Faculty, Gdansk University of Technology (GUT), Poland. The Chairman of the conference was Prof. Józef T. Haponiuk, the head of at Polymers Technology Department of GUT and the Co-Chairman was Prof. Sabu Thomas from Mahatma Gandhi University, Kottayam, Kerala, India, represented by Prof. Nandakumar Kalarikkal from the same university and Convener of the conference. The second convener was Prof. Janusz Datta from Polymers Technology Department of GUT. Contributed lectures were focusing on broad range of investigations in polymer science and technology.

The Keynote lectures were:

R. Augustine, S. Thomas, N. Kalarikkal: “Electrospun polymer nanocomposite scaffolds with enhanced vascularization and cell proliferation for tissue engineering applications” presented by Prof. Nandamumar Kalarikkal from Mahatma Gandhi University, Kottayam, Kerala, India

A. Iordanskii, Y. Liu, D. Rosa, K. Cao, Yu. Zernova, A. Zhulkina, V. Markin, R. Kosenko, A. Olkhov:

“Biodegradable ultrathin fibers via electrospinning: characterization, diffusional transport and drug release application” presented by Prof. Alexey Iordanskii from Semenov Institute of Chemical Physics, Russian Academy of Sciences, Moscow, Russian Federation.

H. Takeno, Y. Noda, H. Izunome, S. Koizumi: “Structural studies of mechanically tough clay-polymer blend hydrogels investigated by combined contrast variation small angle neutron scattering and synchrotron small-angle X-ray scattering” presented by Prof. H. Takeno from Gunma University, Kiryu, Gunma, Japan

M. Bratychak: “Azocompounds with peroxy groups and oligomers on their basis” presented by Prof. Michael Bratychak from Lviv Polytechnic National University, Ukraine

Vivid discussions were encouraged by the following 16 oral presentations.

The Poster session was devoted to the young scientists and industry partners. The prize for the best poster was granted to Marta Przybysz from GUT for “Tailoring of processing and mechanical properties of reclaimed GTR by using of various additives”.

The Organizers would like to express a special thanks to the numerous and active delegation from the Lviv Polytechnic National University.

The participants enjoyed a guided walk in the historical Old City of Gdańsk and had a nice evening meeting in a restaurant at the Motława river, opposite to the well-known Crane, which is a symbol of Gdańsk, first mentioned in 1367.

The 6th International Conference on Polymer Processing and Characterization will be organized most probably in two years in Mahatma Gandhi University, Kottayam, India.

¹ Gdansk University of Technology,
11/12 G. Narutowicza St., 80233 Gdansk, Poland

* jozef.haponiuk@pg.gda.pl

© Haponiuk J., 2017

CHEMISTRY & CHEMICAL TECHNOLOGY

CONTENTS OF VOLUME 11

Vol. 11, No. 1, pp. 1–130

2017

Chemistry

<i>Maryna Stasevych, Viktor Zvarych, Volodymyr Lunin, Mykhailo Vovk, Volodymyr Novikov</i> The New 1,2,3-Triazolylantracene-9,10-Diones: Synthesis Computer Bioactivity Screening	1
<i>Anatoliy Ranskiy, Natalia Didenko, Olga Gordienko</i> Synthesis of Heterocyclic Thioamides and Copper(II) Coordination Compounds Based on Them	11
<i>Suko Hardjono, Siswandono Siswodihardjo, Purwanto Pramono, Win Darmanto</i> Correlation between <i>in silico</i> and <i>in vitro</i> Results of 1-(Benzoyloxy)urea and its Derivatives as Potential Anti-Cancer Drugs	19
<i>Vyacheslav Karpukhin, Michael Malikov, Tatyana Borodina, George Valyano, Olesya Gololobova, Dmitry Strikanov</i> Structural, Morphological and Optical Properties of Nanoproducts of Zirconium Target Laser Ablation in Water and Aqueous SDS Solutions	25
<i>Nadezhda Livanova, Anatoliy Popov, Vladimir Shershnev, Gennady Zaikov</i> Influence of Propylene Units Stereoregularity in Modified Ethylene-Propylene-Diene Elastomers on the Ozone Resistance of Covulcanizates with Acrylonitrile-Butadiene Rubbers	35
<i>Dorota Glowacz-Czerwonka</i> Oligoetherols with S-Trazine Ring Based on Hydroxymethyl Derivatives of Methyl Ethyl Ketone	45
<i>Michael Bratychak, Oksana Iatsyshyn, Olena Shyshchak, Olena Atsakhova, Helena Janik</i> Carboxy Derivative of Dioxydiphenylpropane Diglycidyl Ether Monomethacrylate as an Additive for Composites	49
<i>Olena Chulieieva, Volodymyr Zolotaryov</i> Polyolefin Compositions. Study of Properties of the Flame Retardants Crosslinking Compounds	55

Chemical Technology

<i>Oleg Karandashov, Viacheslav Avramenko</i> Studies of Thermal Stability of Epoxy Compounds for Glass-Fiber Pipes	61
<i>Siti Wafiroh, Murobbiyatul Wathoniyyah, Abdulloh Abdulloh, Yanuardi Rahardjo, Mochamad Zakki Fahmi</i> Application of Glutaraldehyde-Crosslinked Chitosan Membranes from Shrimp Shellwaste on Production of Biodiesel from <i>Calophyllum Inophyllum</i> Oil	65
<i>Roman Havryliv, Volodymyr Maystruk</i> Development of Combustion Model in the Industrial Cyclone-Calciner Furnace Using CFD-Modeling	71
<i>Anatoliy Danylkovych, Viktor Lischuk, Olexander Zhyhotsky</i> Structuring of Collagen of the Dermis during Rawhide Formation	81
<i>Yaroslav Yakymchko, Bogdan Chekansky</i> The Role of Gypsum in Portlandite Stone Structure Formation	93
<i>Victor Shevchenko, Galyna Kotsay</i> Alkaline Factor in Cements with Glass Powder	99
<i>Liudmyla Zubchenko, Yevhen Kuzminskiy</i> Characteristics of Biofilm Formation Process in the Bioelectrochemical Systems, Working in Batch Mode of Cultivation	105
<i>Vasyl Dyachok, Serhiy Huhlych, Yuri Yatchyshyn, Yulia Zaporochets, Viktoriia Katysheva</i> About the Problem of Biological Processes Complicated by Mass Transfer	111
<i>Elizaveta Kostenko, Lyudmila Melnyk, Svitlana Matko, Myroslav Malovanyy</i> The Use of Sulphophtalein Dyes Immobilized on Anionite AB - 17x8 to Determine the Contents of Pb(II), Cu(II), Hg(II) and Zn(II) in Liquid Medium	117
<i>Oleksandr Pasternak, Leonid Bannikov, Anna Smirnova</i> Coal Tar Viscosity when Dissolving Coke Oven Gas Deposits	125

Events

<i>Volodymyr Skorokhoda, Volodymyr Levytskyi</i> Professor Oleh Suberlyak – 70 th Anniversary	I
---	---

Chemistry

<i>Iryna Sobechko, Yana Chetverzhuk, Yury Horak, Valentyn Serheiyev, Victoria Kochubei, Nadiia Velychkivska</i> Thermodynamic Properties of 2-Cyano-3-[5-(Phenyl)-2-Furyl]-2-Propenamide and 2-Cyano-3-[5-(4-Methylphenyl)-2-Furyl]-2-Propenamide Solutions in Organic Solvents	131
<i>Imir Aliyev, Ceyran Ahmedova, Abdin Farzaliyev</i> Phase Equilibria in the As_2Se_3 - $Tl_3As_2S_3Se_3$ System and Properties of Alloys	138
<i>Eslam Kashi, Raziheh Habibpour, Armin Maleki, Hesamoddin Gorzin</i> Effective Parameters Interaction Study for Cerium Extraction from Sulfuric Media Using Di-(2-ethylhexyl) Phosphoric Acid	144
<i>Olena Sachuk, Natalya Kopachevska, Lubov Kuznetsova, Valery Zazhigalov, Volodymyr Starchevskyy</i> Influence of Ultrasonic Treatment on the Properties of ZnO-MoO ₃ Oxide System	152
<i>Galyna Khovanets, Olena Makido, Viktoriya Kochubei, Tetyana Sezonenko, Yuriy Medvedevskikh, Vladyslav Voloshynets</i> Thermal Stability of Organic - Inorganic Composites Based on Dimethacrylate-Tetraethoxysilane System	158
<i>Arsen Kharaev, Raisa Oshroeva, Gennady Zaikov, Rima Bazheva, Lyubov Sakhtueva, Viacheslav Kummykov</i> Synthesis and Properties of Halogen Containing Simple and Complex Block Copolyethers	166
<i>Volodymyr Skorokhoda, Yuriy Melnyk, Natalia Semenyuk, Nataliya Ortynska, Oleh Suberlyak</i> Film Hydrogels on the Basis of Polyvinylpyrrolidone Copolymers with Regulated Sorption-Desorption Characteristics	171
<i>Tetyana Solodovnik, Hennadiy Stolyarenko, Andrii Sliis, Valentyna Kulenko</i> Study of Heat Treatment Effect on Structure and Solubility of Chitosan Films	175
<i>Michael Bratychak, Olga Zubal, Bogdana Bashta, Ostap Ivashkiv, Olena Shyshchak, Jozef Haponiuk</i> Crosslinking of Epoxy-Oligoesteric Mixtures in the Presence of Dioxidiphenylpropane Diglycidyl Ether Modified with Adipic Acid	180
<i>Talkybek Jumadilov, Zharylkasyn Abilov, Juozas Grazulevicius,</i> <i>Nazym Zhunusbekova, Ruslan Kondaurav, Laura Agibayeva, Auez Akimov</i> Mutual Activation and Sorption Ability of Rare Cross-linked Networks in Intergel System Based on Polymethacrylic Acid and Poly-4-vinylpyridine Hydrogels in Relation to Lanthanum Ions	188
<i>Angela Shurshina, Alfiya Galina, Mariya Elinson, Elena Kulish</i> Peculiarities of Medicinal Substance Release Under the Conditions of Interface Diffusion Process and Hydrolysis of a Polymeric Matrix	195
<i>Jimsher Aneli, Lana Shamanauri, Eliza Markarashvili, Tamar Tatrishvili, Omar Mukbaniani</i> Polymer-Silicate Composites with Modified Minerals	201

Chemical Technology

<i>Nikolai Bogdanovich, Mikhail Arkhilin, Anna Menshina, Lidiya Kuznetsova,</i> <i>Albert Kanarskii, Nadezda Voropaeva, Oleg Figovsky</i> Magneto Susceptible Adsorbents Obtained by Thermochemical Activation of Hydrolytic Lignin with Iron(III) Hydroxide	209
<i>Oksana Savvova, Luidmyla Bragina, Gennadii Voronov, Yuliya Sobol,</i> <i>Olena Babich, Oksana Shalygina, Mykola Kuriakin</i> Development of Glass-Ceramic High-Strength Material for Personal Armor Protection Elements	214
<i>Olufemi Babatunde, Sergiy Boichenko, Petro Topilnytskyy, Victoria Romanchuk</i> Comparing Physico-Chemical Properties of Oil Fields of Nigeria and Ukraine	220
<i>Andriy Nagurskyy, Yuriy Khlibyshyn, Oleg Grynyshyn</i> Bitumen Compositions for Cold Applied Roofing Products	226
<i>Rocio Martinez-Flores, J. E. Camporredondo-Saucedo, H. A. Moreno-C, G. Gonzalez-Zamarripa,</i> <i>M. Corona-Romo, Witold Brostow, Haley E. Hagg Lobland</i> Mesophase Microspheres from Distillation and Thermal Treatment of Coal Tar	230
<i>Mariia Shved, Serhiy Pyshyev, Yuriy Prysiashnyi</i> Effect of Oxidant Relative Flow Rate on Obtaining Raw Material for Pulverized Coal Production from High-Sulfur Low Grade Coal	236
<i>Volodymyr Shmandiy, Liliya Bezdeneznych, Olena Kharlamova, Anatoliy Svjatenko,</i> <i>Myroslav Malovanyy, Kateryna Petrushka, Igor Polyuzhyn</i> Methods of Salt Content Stabilization in Circulating Water Supply Systems	242
<i>Kateryna Luskan, Al'ona Gyrenko, Tetyana Bubel, Oleg Mysov</i> Synthesis and Physicochemical Properties of Ammonium Tetravanadate for Obtaining VO ₂	247
<i>Ghadir Nazari, Hossein Abolghasemi, Mohamad Esmaili</i> Fixed-Bed Adsorption of Cephalexin onto Walnut Shell-Based Activated Carbon	253

Chemistry

<i>Yaroslav Kovalyshyn, Myroslava Konovska, Chiara Milanese, Ivan Saldan, Roman Serkiz, Orest Pereviznyk, Oleksandr Reshetnyak, Orest Kuntzi</i> Electrochemical Properties of the Composites Synthesized from Polyaniline and Modified MWCNT	261
<i>Kateryna Didenko, Natalia Kozak, Valerii Klepko</i> Preparation and Characterization of Phenol Sorbents Based on Konjac Glucomannan and Water-Soluble Blocked Isocyanates	270
<i>Oleh Dzhodzhyk, Iryna Kolesnyk, Victoriia Konovalova, Anatoliy Burban</i> Modified Polyethersulfone Membranes with Photocatalytic Properties	277

Chemical Technology

<i>Olena Kupchyk</i> Stripping Voltamperometric Determination of Heavy Metals in Honey Samples	285
<i>Alisa Vaziyeva, Oksana Pavlenko</i> Investigation of Molybdate Ion Sorption on the Sorbent from Industrial Waste	291
<i>Ivan Kostiv, Yaroslava Basystyuk</i> Kinetics of Schoenite Crystallization from the Suspension of Saturated Solution and Artificial Kainite	296
<i>Thiyam Devi, Bimlesh Kumar</i> Vortex Depth Analysis in an Unbaffled Stirred Tank With Concave Blade Impeller	301
<i>Ruslana Kosiv, Tetiana Kharandiuk, Lubov Polyuzhyn, Lubov Palianytsia, Natalia Berezovska</i> Effect of High Gravity Wort Fermentation Parameters on Beer Flavor Profile	308
<i>Iryna Kurmakova, Olena Bondar, Sergey Polevichenko, Nataliya Demchenko</i> Quaternary Pyridinium Salts as Inhibitors of Mild Steel Biocorrosion	314
<i>Ihor Horichok, Myroslava Shevchuk, Taras Parashchuk, Mar'jan Galushchak</i> Intrinsic Point Defects of Samarium Monosulphide Crystals in Metal Phase	319
<i>Sumit Kumar Jana, Sudip Kumar Das</i> Tapered Bubble Column Using Pseudoplastic Non-Newtonian Liquids - Empirical Correlation for Pressure Drop	327
<i>Bruno de Paula Amantes, Renato Pereira de Melo, Roberto Pinto Cucinelli Neto, Maria de Fatima Vieira Marques</i> Chemical Treatment and Modification of Jute Fiber Surface	333
<i>Vladimir Lukashov, Sergey Romanko, Sergey Timofeev, Alexander Protsenko</i> Rate of Components Evaporation from Sulfuric Acid Solution During its Concentrating in Air Flow	344
<i>Lais Gomes, Bruna Alves, Rita de Cassia Nunes, Ricardo Michel, Ygor Ribeiro, Flavia da Silva, Luciana Spinelli</i> Aphrons Obtained from Different Nonionic Surfactants: Properties and Filtration Loss Evaluation	349
<i>Volodymyr Starchevskyy, Nataliya Bernatska, Iryna Typilo, Iryna Khomyshyn</i> The Effectiveness of Food Industry Wastewater Treatment by Means of Different Kinds of Cavitation Generators	358
<i>Iurii Bodachivskiy, Grigoriy Pop, Leonid Zheleznyi, Stepan Zubenko, Mykhailo Okhrimenko</i> Oleochemical Synthesis of Sulfanes, Their Structure and Properties	365
<i>Ganna Trokhymenko, Mykola Gomelya</i> Development of Low Waste Technology of Water Purification from Copper Ions	372
<i>Elina Khobotova, Marina Ignatenko, Vasiliy Larin, Yulia Kalmykova, Anatoly Turenko</i> Elemental and Mineral Composition of Ash - Slag Wastes of Slovianska Thermal Power Plant	378
<i>Olena Tertyshna, Vitalina Martynenko, Kostyantyn Zamikula, Petro Topilnytskyy, Yurii Holych</i> Forming of Crude Oil Mixtures with Increased Yield of Target Fractions	383
<i>Oleg Hrynyshyn, Bogdan Korchak, Taras Chervinskyy, Viktoria Kochubei</i> Change in Properties of M - 10DM Mineral Motor Oil After its Using in the Diesel Engine	387
<i>Bemgba Nyakuma, Olagoke Oladokun</i> Biofuel Characterization and Pyrolysis Kinetics of <i>Acacia Mangium</i>	392

Chemistry

<i>Iryna Sobechko, Volodymyr Dibrivnyi, Yuri Horak, Nadiia Velychkivska, Victoriia Kochubei, Mykola Obushak</i> Thermodynamic Properties of Solubility of 2-Methyl-5-aryl-furan-3-carboxylic Acids in Organic Solvents	397
<i>Andrey Tokar, Elena Synchuk, Olga Chigvintseva</i> The Quantum-Chemical Modelling of Structure and Spectral Characteristics for Molecular Complexes in Pentaplast-Terlon System	405
<i>Danijel' Amanov, Viktor Shevko, Gul'nara Karatayeva, Galimzhan Serzhanov</i> Thermodynamic Analysis of Obtaining Ferroalloy from Silicon-Aluminum-Containing Silica Clay	410
<i>Samira Imamaliyeva, Turan Gasanly, Imameddin Amiraslanov, Mahammad Babanly</i> Phase Relations in the Tl_5Te_3 - Tl_9SbTe_6 - Tl_9TbTe_6 System	415
<i>Oman Zuas, Harry Budiman, Nuryatini Hamim</i> Measurement of SF_6 Using GC-ECD: A Comparative Study on the Utilization of CO_2 - N_2 Mixture and CH_4 -Ar Mixture as a Make-up Gas	420
<i>Oleksandr Ivashchuk</i> Catalytic Intensification of the Cyclohexane Oxidation	430
<i>Maykel Gonzalez Torres, Carolina Munoz Torres, Ataulfo Martinez Torres, Susana Vargas Munoz, Rogelio Rodriguez Talavera, Alvaro de Jesus Ruiz-Baltazar, Witold Brostow</i> Validation of a Method to Quantify Platinum in Cisplatin by Inductively-Coupled Plasma	437
<i>Martyn Sozanskyi, Vitalii Stadnik, Ruslana Chaykivska, Ruslana Guminilovych, Pavlo Shapoval, Iosyp Yatchyshyn</i> Synthesis and Properties of Mercury Selenide Films Deposited by Using Potassium Iodide as Complexing Agent	445
<i>Volodymyr Samaryk, Sergiy Varvarenko, Nataliya Nosova, Nataliia Fihurka, Anna Musyanovych, Katharina Landfester, Nadiya Popadyuk, Stanislav Voronov</i> Optical Properties of Hydrogels Filled with Dispersed Nanoparticles	449
<i>Volodymyr Myshak, Vita Seminog, Volodymyr Grishchenko, Antonina Barantsova</i> Modified Composites Based on Poly(ethylene-vinyl acetate) and Crumb Rubber	454

Chemical Technology

<i>Vira Sabadash, Oksana Mylanyk, Oksana Matsuska, Jaroslaw Gumnitsky</i> Kinetic Regularities of Copper Ions Adsorption by Natural Zeolite	459
<i>Yurii Tulaydan, Myroslav Malovanyy, Viktoria Kochubei, Halyna Sakalova</i> Treatment of High-Strength Wastewater from Ammonium and Phosphate Ions with the Obtaining of Struvite	463
<i>Dmytro Symak, Jaroslaw Gumnitsky, Volodymyr Atamaniuk, Oleg Nagurskyi</i> Investigation of Physical Dissolution of Benzoic Acid Polydisperse Mixture	469
<i>Liliya Shevchuk, Ivan Aftanaziv, Taras Falyk</i> Vibrocavitation Decontamination of Brewing Yeast-Containing Wastewater	475
<i>Nataliya Lashko, Nataliya Derevianko, Galina Dudarieva</i> Binding of Aromaforming Cryo- and Thermotropic Jellies of Gelatin and Starch	480
<i>Inessa Pavliuk, Vasyl Dyachok, Volodymyr Novikov, Nataliya Ilkiv</i> Kinetics of Biologically Active Compound Extraction from Hops Strobiles Extraction Cake	487
<i>Oksana Shulga, Anastasia Chorna, Sergij Kobylinskyi</i> Differential Scanning Calorimetry Research of Biodegradable Films for Confectionery and Bakery Products	492
<i>Olena Bondar, Iryna Kurmakova, Sergey Polevichenko, Nataliya Demchenko</i> Biocorrosion of Metal Sewage Treatment Constructions and its Inhibition with Pyridinium Chlorides	497
<i>Stepan Shapoval, Pavlo Shapoval, Vasyl Zhelykh, Ostap Pona, Nadiya Spodyniuk, Bogdan Gulai, Olena Savchenko, Khrystyna Myroniuk</i> Ecological and Energy Aspects of Using the Combined Solar Collectors for Low-Energy Houses	503
<i>Michael Bratychak, Olena Astakhova, Olena Shyshchak, Jacek Namiesnik, Oresta Ripak, Serhiy Pyshyev</i> Obtaining of Coumarone-Indene Resins Based on Light Fraction of Coal Tar. 1. Coumarone-Indene Resins with Carboxy Groups	509
<i>Zenoviy Znak, Olha Zin.</i> Investigation of Disposal of Liquid Wastes from Olefin Production by Sodium Hypochlorite Solutions	517

Events

<i>Michael Bratychak, Olena Shyshchak</i> New Textbook "Materials: Introduction and Applications" by Witold Brostow & Haley E. Hagg Lobland, John Wiley & Sons 2017	I
<i>Jozef Haponiuk</i> 5 th International Conference on Polymer Processing and Characterization (ICPPC – 2017)	II

AUTHOR INDEX OF VOLUME 11

- ABDULLOH Abdulloh* (1) 65
ABILOV Zharylkasyn (2) 188
ABOLGHASEMI Hossein (2) 253
AFTANAZIV Ivan (4) 475
AGIBAYEVA Laura (2) 188
AHMEDOVA Ceyran (2) 138
AKIMOV Auez (2) 188
ALIYEV Imir (2) 138
ALVES Bruna (3) 349
AMANOV Danijel' (4) 410
AMANTES Bruno de Paula (3) 333
AMIRASLANOV Imameddin (4) 415
ANELI Jimsher (2) 201
ARKHILIN Mikhail (2) 209
ASTAKHOVA Olena (1) 49; (4) 509
ATAMANIUK Volodymyr (4) 469
AVRAMENKO Viacheslav (1) 61
BABANLY Mahammad (4) 415
BABATUNDE Olufemi (2) 220
BABICH Olena (2) 214
BANNIKOV Leonid (1) 125
BARANTSOVA Antonina (4) 454
BASHTA Bogdana (2) 180
BASYSTYUK Yaroslava (3) 296
BAZHEVA Rima (2) 166
BEREZOVSKA Natalia (3) 308
BERNATSKA Nataliya (3) 358
BEZDENEZNYCH Lilija (2) 242
BODACHIVSKYI Iurii (3) 365
BOGDANOVICH Nikolai (2) 209
BOICHENKO Sergyi (2) 220
BONDAR Olena (3) 314; (4) 497
BORODINA Tatyana (1) 25
BRAGINA Luidmyla (2) 214
BRATYCHAK Michael (1) 49; (2) 180; (4) 509
BROSTOW Witold (2) 230; (4) 437
BUBEL Tetyana (2) 247
BUDIMAN Harry (4) 420
BURBAN Anatoliy (3) 277
CAMPORREDONDO-SAUCEDO J. E. (2) 230
CHAYKIVSKA Ruslana (4) 445
CHEKANSKY Bogdan (1) 93
CHERVINSKY Taras (3) 387
CHETVERZHUK Yana (2) 131
CHIGVINTSEVA Olga (4) 405
CHORNA Anastasia (4) 492
CHULIEIEVA Olena (1) 55
CORONA-ROMO M. (2) 230
da SILVA Flavia (3) 349
DANYLKOBYCH Anatoliy (1) 81
DARMANTO Win (1) 19
DAS Sudip Kumar (3) 327
de MELO Renato Pereira (3) 333
DEMCHENKO Nataliya (3) 314; (4) 497
DEREVIANKO Nataliya (4) 480
DEVI Thiyaum (3) 301
DIBRIVNYI Volodymyr (4) 397
DIDENKO Kateryna (3) 270
DIDENKO Natalia (1) 11
DUDARIEVA Galina (4) 480
DYACHOK Vasyl (1) 111; (4) 487
DZHODZHYK Oleh (3) 277
ELINSON Mariya (2) 195
ESMAIELI Mohamad (2) 253
FAHMI Mochamad Zakki (1) 65
FALYK Taras (4) 475
FARZALIYEV Abdin (2) 138
FIGOVSKY Oleg (2) 209
FIHURKA Nataliia (4) 449
GALINA Alfiya (2) 195
GALUSHCHAK Mar'jan (3) 319
GASANLY Turan (4) 415
GLOWACZ-CZERWONKA Dorota (1) 45
GOLOLOBOVA Olesya (1) 25
GOMELYA Mykola (3) 372
GOMES Lais (3) 349
GONZALEZ-ZAMARRIPA G. (2) 230
GORDIENKO Olga (1) 11
GORZIN Hesamoddin (2) 144
GRAZULEVICIUS Juozas (2) 188
GRISHCHENKO Volodymyr (4) 454
GRYNYSHYN Oleg (2) 226
GULAI Bogdan (4) 503
GUMINILOVYCH Ruslana (4) 445
GUMNITSKY Jaroslaw (4) 459, 469
GYRENKO Al'ona (2) 247
HABIBPOUR Razieh (2) 144
HAGG LOBLAND Haley E. (2) 230
HAMIM Nuryatini (4) 420
HAPONIUK Jozef (2) 180
HARDJONO Suko (1) 19
HAVRYLIV Roman (1) 71
HOLYCH Yurii (3) 383
HORAK Yuri (2) 131; (4) 397
HORICHOK Ihor (3) 319
HRYNYSHYN Oleg (3) 387
HUHLYCH Serhiy (1) 111
IATSYSHYN Oksana (1) 49
IGNATENKO Marina (3) 378
ILKIV Nataliya (4) 487
IMAMALIYEVA Samira (4) 415
IVASHCHUK Oleksandr (4) 430
IVASHKIV Ostap (2) 180
JANA Sumit Kumar (3) 327
JANIK Helena (1) 49
JUMADILOV Talkybek (2) 188
KALMYKOVA Yulia (3) 378
KANARSKII Albert (2) 209
KARANDASHOV Oleg (1) 61
KARATAYEVA Gul'nara (4) 410
KARPUKHIN Vyacheslav (1) 25
KASHI Eslam (2) 144
KATYSHEVA Viktoriia (1) 111
KHARAEV Arsen (2) 166
KHARANDIUK Tetiana (3) 308
KHARLAMOVA Olena (2) 242
KHLIBYSHYN Yuriy (2) 226
KHOBOTOVA Elina (3) 378
KHOMYSHYN Iryna (3) 358
KHOVANETS Galyna (2) 158
KLEPKO Valerii (3) 270
KOBYLINSKYI Sergij (4) 492
KOCHUBEI Victoria (2) 131, 158; (3) 387; (4) 397, 463
KOLESNYK Iryna (3) 277

KONDAUROV Ruslan (2) 188
 KONOVALOVA Victoriia (3) 277
 KONOVSKA Myroslava (3) 261
 KOPACHEVSKA Natalya (2) 152
 KORCHAK Bogdan (3) 387
 KOSIV Ruslana (3) 308
 KOSTENKO Elizaveta (1) 117
 KOSTIV Ivan (3) 296
 KOTSAY Galyna (1) 99
 KOVALYSHYN Yaroslav (3) 261
 KOZAK Natalia (3) 270
 KULISH Elena (2) 195
 KULTENKO Valentyna (2) 175
 KUMAR Bimlesh (3) 301
 KUMYKOV Viacheslav (2) 166
 KUNTYI Orest (3) 261
 KUPCHYK Olena (3) 285
 KURIAKIN Mykola (2) 214
 KURMAKOVA Iryna (3) 314; (4) 497
 KUZMINSKIY Yevhen (1) 105
 KUZNETSOVA Lidiya (2) 209
 KUZNETSOVA Lubov (2) 152
 LANDFESTER Katharina (4) 449
 LARIN Vasiliy (3) 378
 LASHKO Nataliya (4) 480
 LISCHUK Viktor (1) 81
 LIVANOVA Nadezhda (1) 35
 LUKASHOV Vladimir (3) 344
 LUNIN Volodymyr (1) 1
 LUSKAN Kateryna (2) 247
 MAKIDO Olena (2) 158
 MALEKI Armin (2) 144
 MALIKOV Michael (1) 25
 MALOVANYI Myroslav (1) 117; (2) 242; (4) 463
 MARKARASHVILI Eliza (2) 201
 MARQUES Maria de Fatima Vieira (3) 333
 MARTINEZ-FLORES Rocio (2) 230
 MARTYNENKO Vitalina (3) 383
 MATKO Svitlana (1) 117
 MATSUSKA Oksana (4) 459
 MAYSTRUK Volodymyr (1) 71
 MEDVEDEVSKIY Yuriy (2) 158
 MELNYK Lyudmila (1) 117
 MELNYK Yuriy (2) 171
 MENSCHINA Anna (2) 209
 MICHEL Ricardo (3) 349
 MILANESE Chiara (3) 261
 MORENO-C H.A. (2) 230
 MUKBANIANI Omar (2) 201
 MUNOZ Susana Vargas (4) 437
 MUSYANOVYCH Anna (4) 449
 MYLANYK Oksana (4) 459
 MYRONIUK Khrystyna (4) 503
 MYSHAK Volodymyr (4) 454
 MYSOV Oleg (2) 247
 NAGURSKYY Andriy (2) 226
 NAGURSKYY Oleg (4) 469
 NAMIESNIK Jacek (4) 509
 NAZARI Ghadir (2) 253
 NETO Roberto Pinto Cucinelli (3) 333
 NOSOVA Nataliya (4) 449
 NOVIKOV Volodymyr (1) 1; (4) 487
 NUNES Rita de Cassia (3) 349
 NYAKUMA Bemgba (3) 392
 OBUSHAK Mykola (4) 397
 OKHRIMENKO Mykhailo (3) 365
 OLADOKUN Olagoke (3) 392
 OSHROEVA Raisa (2) 166
 PALIANYTSIA Lubov (3) 308
 PARASHCHUK Taras (3) 319
 PASTERNAK Oleksandr (1) 125
 PAVLENKO Oksana (3) 291
 PAVLIUK Inessa (4) 487
 PEREVIZNYK Orest (3) 261
 PETRUSHKA Kateryna (2) 242
 POLEVICHENKO Sergey (3) 314; (4) 497
 POLYUZHYN Igor (2) 242
 POLYUZHYN Lubov (3) 308
 PONA Ostap (4) 503
 POP Grigoriy (3) 365
 POPADYUK Nadiya (4) 449
 POPOV Anatoliy (1) 35
 PRAMONO Purwanto (1) 19
 PROTSENKO Alexander (3) 344
 PRYSIAZHNYI Yuriy (2) 236
 PYSHYEV Serhiy (2) 236; (4) 509
 RAHARDJO Yanuardi (1) 65
 RANSKIY Anatoliy (1) 11
 RESHETNYAK Oleksandr (3) 261
 RIBEIRO Ygor (3) 349
 RIPA Oresta (4) 509
 ROMANCHUK Victoria (2) 220
 ROMANKO Sergey (3) 344
 RUIZ-BALTAZAR Alvaro de Jesus (4) 437
 SABADASH Vira (4) 459
 SACHUK Olena (2) 152
 SAKALOVA Halyna (4) 463
 SAKHTUEVA Lyubov (2) 166
 SALDAN Ivan (3) 261
 SAMARYK Volodymyr (4) 449
 SAVCHENKO Olena (4) 503
 SAVVOVA Oksana (2) 214
 SEMENYUK Natalia (2) 171
 SEMINOG Vita (4) 454
 SERHEYEV Valentyn (2) 131
 SERKIZ Roman (3) 261
 SERZHANOV Galimzhan (4) 410
 SEZONENKO Tetyana (2) 158
 SHALYGINA Oksana (2) 214
 SHAMANAURI Lana (2) 201
 SHAPOVAL Pavlo (4) 445, 503
 SHAPOVAL Stepan (4) 503
 SHERSHNEV Vladimir (1) 35
 SHEVCHENKO Victor (1) 99
 SHEVCHUK Liliya (4) 475
 SHEVCHUK Myroslava (3) 319
 SHEVKO Viktor (4) 410
 SHMANDIY Volodymyr (2) 242
 SHULGA Oksana (4) 492
 SHURSHINA Angela (2) 195
 SHVED Mariia (2) 236
 SHYSHCHAK Olena (1) 49; (2) 180; (4) 509
 SISWODIHARDJO Siswandono (1) 19
 SKOROKHODA Volodymyr (2) 171
 SLIS Andrii (2) 175
 SMIRNOVA Anna (1) 125
 SOBECHKO Iryna (2) 131; (4) 397
 SOBOL Yuliya (2) 214
 SOLODOVNIK Tetyana (2) 175
 SOZANSKYI Martyn (4) 445

SPINELLI Luciana (3) 349
 SPODYNIUK Nadiya (4) 503
 STADNIK Vitalii (4) 445
 STARCHEVSKYY Volodymyr (2) 152; (3) 358
 STASEVYCH Maryna (1) 1
 STOLYARENKO Gennadiy (2) 175
 STRIKANOV Dmitry (1) 25
 SUBERLYAK Oleh (2) 171
 SVJATENKO Anatoliy (2) 242
 SYMAK Dmytro (4) 469
 SYNCHUK Elena (4) 405
 TALAVERA Rogelio Rodriguez (4) 437
 TATRISHVILI Tamar (2) 201
 TERTYSHNA Olena (3) 383
 TIMOFEEV Sergey (3) 344
 TOKAR Andrey (4) 405
 TOPILNYTSKYY Petro (2) 220; (3) 383
 TORRES Ataulfo Martinez (4) 437
 TORRES Carolina Munoz (4) 437
 TORRES Maykel Gonzalez (4) 437
 TROKHYMENKO Ganna (3) 372
 TULAYDAN Yurii (4) 463
 TURENKO Anatoly (3) 378
 TYPILO Iryna (3) 358
 VALYANO George (1) 25
 VARVARENKO Sergiy (4) 449
 VAZIYEVA Alisa (3) 291

VELYCHKIVSKA Nadiia (2) 131; (4) 397
 VOLOSHYNETS Vladyslav (2) 158
 VORONOV Gennadii (2) 214
 VORONOV Stanislav (4) 449
 VOROPAEVA Nadezda (2) 209
 VOVK Mykhailo (1) 1
 WAFIROH Siti (1) 65
 WATHONIYYAH Murobbiyatul (1) 65
 YAKYMECHKO Yaroslav (1) 93
 YATCHYSHYN Iosyp (4) 445
 YATCHYSHYN Yuri (1) 111
 ZAIKOV Gennady (1) 35; (2) 166
 ZAMIKULA Kostyantyn (3) 383
 ZAPORochETS Yulia (1) 111
 ZAZHIGALOV Valery (2) 152
 ZHELEZNYI Leonid (3) 365
 ZHELYKH Vasyl (4) 503
 ZHUNUSBekOVA Nazym (2) 188
 ZHYHOTSKY Olexander (1) 81
 ZIN Olha (4) 517
 ZNAK Zenoviy (4) 517
 ZOLOTARYOV Volodymyr (1) 55
 ZUAS Oman (4) 420
 ZUBAL Olga (2) 180
 ZUBCHENKO Liudmyla (1) 105
 ZUBENKO Stepan (3) 365
 ZVARYCH Viktor (1) 1

