INFLUENCE OF ALIPHATIC MOIETIES IN DIISOCYANATES ON CHAIN EXTENSION KINETICS OF ADIPATE MACRODIOLS

S. Mačiulytė, A. Strakšys, S. Asadauskas

Department of Chemical Engineering and Technologies, Center for Physical Sciences and Technology, Vilnius, Lithuania, asadauskas@chi.lt

Plastics, adhesives, resins and other polyurethane (PUR) formulations are widespread in various industrial, food, biomed and other applications [1]. In many cases two component blends are used, where "OH-component" represents a viscous prepolymer, which can be crosslinked with isocyanates into fully cured PUR. Adipate macrodiols are often employed in manufacture of non-yellowing and other high performance PUR. Their chain extension must be accurately controlled in order to obtain a needed molar mass distribution [2]. In this study, an adduct of adipic acid with ethylene glycol was used as an ester type macrodiol, while an adduct of adipic a. with diethylene glycol as an ether-ester type macrodiol, Fig. 1.

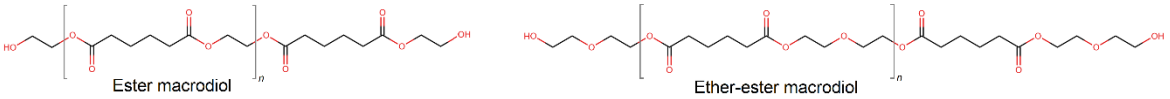

Fig. 1. Structures of adipate microdiols (n ~ 12-14), used for chain extension with diisocyanates

Chain extension of excess macrodiols was performed at 2:1 and 3.33:1 molar ratios with respect to aliphatic diisocyanates: either hexamethylene diisocyanate (HDI) or isophorone diisocyanate (IPDI). Titration of polymerization mixture aliquots with dibutyl amine was exercised to monitor the amount of unreacted NCO (isocyanate) groups, Fig. 2.

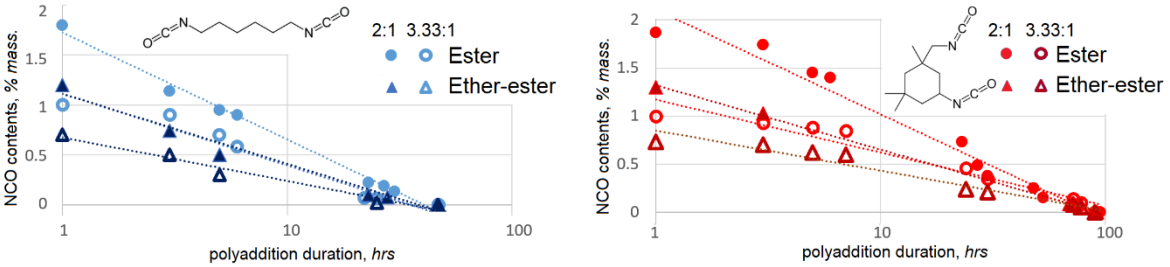

Fig. 2. Isocyanate (NCO- group) depletion at 80°C during chain extension of adipate macrodiols in 2:1 or 3.33:1 molar excess with aliphatic diisocyanates HDI (left) and IPDI (right).

Isocyanate depletion appears to follow approximate semilog dependence on the reaction duration, as might be inferred from satisfactory least square fits. R^2 values exceed 0.95 for all chain extensions, except for IPDI at 1:3.33 ratio to the ester macrodiol. Overall, IPDI seems to react slower than HDI, most likely due to steric hindrance, although the presence of one secondary alpha α-C atom might also affect the reactivity of NCO group in IPDI. Established semiquantitative trends might be beneficial for better control of prepolymer production in industrial manufacturing.

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References

1. B. N. Rao, P. J. P. Yadav, K. Malkappa, T. Jana., Polymer, **77** (2015) 323-333.
2. N. Akram, K. M. Zia, M. Saeed, M. Usman, S. Saleem, J. Appl. Polym. Sci., **135** (2018) 46635.

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BALTIC POLYMER SYMPOSIUM 2019
CONFERENCE AGENDA

September 18

15.00 – 19.00	**Registration and Reception** Lobby of the hotel “Artis Centrum Hotels”, Totoriu str. 23
16.30 – 18.00	**Excursion to the Central Building of Vilnius University** Universiteto str. 3
19.00 – 21.00	**Welcome Party** Artis Centrum Hotels, **Restaurant “Adelia”**

September 19

Registration and opening. Theater Hall of Vilnius University (Universiteto str. 3)	
8:30 – 9:00	**Registration**
9:00 – 9:15	**Opening Ceremony**
Session 1	**Theater Hall of Vilnius University** (Universiteto str. 3) **Chairman prof. R. Makuška**
	Invited Lectures
9.15 – 9.45	**Marta Giamberini** **SMART POLYMERIC MATERIALS FOR MICROENCAPSULATION** Department of Chemical Engineering, Universitat Rovira i Virgili, Tarragona, Catalonia, Spain
9.45 – 10.15	**Per Martin Claesson** **BIOINSPIRED ADHESION POLYMERS – WEAR RESISTANCE OF ADSORPTION LAYERS** KTH Royal Institute of Technology, School of Engineering Sciences in Chemistry, Biotechnology and Health, Department of Chemistry, Division of Surface and Corrosion Science, Stockholm, Sweden. RISE Research Institutes of Sweden, Division of Bioscience and Materials, Stockholm, Sweden.
10.30 – 11.00	**Coffee break** Artis Centrum Hotels, **Carmen Hall** (Totoriu str. 23)
Session 2	Artis Centrum Hotels**, Aida Hall** **Chairman prof. J.V. Gražulevičius**
	Oral presentations
11.00 – 11.15	K. Kubik[1], J. Paluch[2], J. Gabor[1], K. P. Jasik[3], A. Kwaśniewska[4], A. S. Swinarew[1]

	3D SCAFFOLDS IN RECONSTRUCTION OF THE LARYNX [1]Institute of Material Science, Faculty of Computer Science and Material Science, University of Silesia in Katowice, Poland [2]Department and Clinic of Laryngology, School of Medicine in Katowice, Medical University of Silesia in Katowice, Poland [3]Department of Skin Structural Studies, School of Pharmacy with the Division of Laboratory Medicine in Sosnowiec, Medical University of Silesia in Katowice, Poland [4]Department of Radiology, Medical University of Silesia in Katowice, Hospital SPSK M, Katowice, Poland
11.15 – 11.30	S. Varnaitė-Žuravliova[1], V. Skurkytė-Papievienė[2], A. Abraitienė[2], A. Sankauskaitė[2], J. Baltušnikaitė-Guzaitienė[1] **IMPROVEMENT OF THERMOREGULATORY AND FRAGRANCE PROPERTIES OF TEXTILES USED FOR ORTHOPEDIC PURPOSES** [1]Department of Textiles Physical-Chemical Testing, Center for Physical Sciences and Technology, Kaunas, Lithuania [2]Department of Textile Technologies, Center for Physical Sciences and Technology, Kaunas, Lithuania
11.30 – 11.45	S. V. Kostjuk[1,2], M. I. Hulnik[1,2], I. V. Vasilenko[1] **AQUEOUS CATIONIC (CO)POLYMERIZATION: A GREEN ROUTE TOWARD SUSTAINABLE ELASTOMERS** [1]Research Institute for Physical Chemical Problems of the Belarusian State University, Minsk, Belarus [2]Department of Chemistry, Belarusian State University, Minsk, Belarus
11.45 – 12.00	A. Serra[1], F. Gamardella[1], V. Sabatini[1,2], X. Ramis[3], S. De la Flor[4] **NOVEL DUAL-CURED THERMOSETS OBTAINED BY CONTROLLED ISOCYANATE-EPOXY/THIOL CLICK REACTIONS** [1]Analytical & Organic Chemistry Department, Universitat Rovira i Virgili, Tarragona, Spain [2]Chemistry Department, Università degli Studi di Milano, Milano, Italy [3]Thermodynamics Lab., ETSEIB Universitat Politècnica de Catalunya, Barcelona, Spain [4]Department of Mechanical Engineering. Universitat Rovira i Virgili, Tarragona, Spain
12.00 – 12.15	A. I. Gostev[1], D. M. Krygina[2], E. V. Sivtsov[1], V. A. Ostrovskii[1] **RAFT POLYMERIZATION AS A TOOL FOR OBTAINING BIOMEDICAL MATRICES ON THE BASE OF N-VINYL-SUCCINIMIDE AND 5-VINYLTETRAZOLE** [1]Saint-Petersburg State Institute of Technology, Saint-Petersburg, Russia [2]Institute of Macromolecular Compounds of RAS, Saint-Petersburg, Russia
12.15 – 12.30	I. Dobryden[1], T. Tokarski[1], M. Cortes Ruiz[2], G. Li[1] and P. M. Claesson[1,3] **NANOSCALE MAPPING OF INTERPHASE WITH AFM: POLYMER BASED NANOCOMPOSITES** [1]Department of Surface and Corrosion Science, KTH Royal Institute of Technology, Stockholm, Sweden

	[2]Department of Chemical Engineering, Grove School of Engineering, New York, United States [3]RISE Research Institutes of Sweden, Division of Bioscience and Materials, Stockholm, Sweden
12.30 – 12.45	M. Netopilík **SEC OF POLYMER WITH COMPLEX DISTRIBUTION OF MOLECULAR WEIGHT AND BRANCH-POINTS** Institute of Macromolecular Chemistry, Prague, Czech Republic
12.45 – 13.00	T. Panova, A. Efimova, A. Berkovich, A. Efimov **GRAPHENE OXIDE BASED POLY(VINYL ALCOHOL) NANOCOMPOSITE FILMS: CONTROL OF MECHANICAL PROPERTIES** Polymer Department, Faculty of Chemistry, M.V. Lomonosov Moscow State University, Moscow, Russia
13.00 – 14.00	**Lunch** Artis Centrum Hotels, **Restaurant "La Traviata**"
Session 3	Artis Centrum Hotels, **Aida Hall** **Chairman prof. P.M. Claesson**
	Invited Lectures
14.00 – 14.30	**Ugis Cabulis** **RECYCLABLE AND RENEWABLE RESOURCES AS MUTUALLY COMPLEMENTARY RAW MATERIALS FOR THE PRODUCTION OF POLYURETHANE FOAMS** Latvian State Institute of Wood Chemistry, Riga, Latvia
14.30 – 15.00	**Illia Krasnou** **ELECTROSPUN NANOFIBROUS MATERIALS FOR ENERGY STORAGE AND HARVESTING** Department of Materials and Environmental Technology, Tallinn University of Technology, Tallinn, Estonia
	Oral presentations
15.00 – 15.15	S. Mačiulytė, A. Strakšys, S. Asadauskas **INFLUENCE OF ALIPHATIC MOIETIES IN DIISOCYANATES ON CHAIN EXTENSION KINETICS OF ADIPATE MACRODIOLS** Department of Chemical Engineering and Technologies, Center for Physical Sciences and Technology, Vilnius, Lithuania
15.15 – 15.30	F. Gamardella[1], F. Guerrero[1], S. De la Flor[2], X. Ramis[3], À. Serra[1] **CHARACTERIZATION OF THE FUNCTIONAL PROPERTIES OF A NEW CLASS OF VITRIMERS BASED ON POLY(THIOURETHANE) NETWORKS** [1]Department of Analytical and Organic Chemistry, Universitat Rovira i Virgili, Tarragona, Catalonia, Spain [2]Department of Mechanical Engineering, Universitat Rovira i Virgili, Tarragona, Catalonia, Spain

	[3]Thermodynamics Laboratory, ETSEIB Universitat Politècnica de Catalunya, Barcelona, Catalonia, Spain
15.45 – 16.00	A. Kadashchuk[1,2], A. Vakhnin[1], A. Zhugayevych[3], A. Köhler[4] **IMPACT OF FILM MORPHOLOGY ON ELECTRONIC STRUCTURE IN THE PROTOTYPICAL SEMICONDUCTING POLYMER POLY-3-HEXYLTHIOPHENE** [1]Institute of Physics, National Academy of Sciences of Ukraine, Kyiv, Ukraine [2]IMEC, Leuven, Belgium [3]Center for Electrochemical Energy Storage, Skolthech, Moscow, Russia [4]Bayreuth Institute of Macromolecular Research (BIMF), University of Bayreuth, Bayreuth, Germany
16.00 – 17.00	**Coffee break & Poster session I.** Artis Centrum Hotels, **Carmen Hall**
19.00	**Gala Dinner at Entertainment & Leisure Center** **"Belmontas"** (Belmonto str. 17, Vilnius)

September 20

Session 4	Artis Centrum Hotels**, Aida Hall** **Chairman prof. A. Krumme**
	Invited Lectures
9.00 – 9.30	**Jose Antonio Reina** **BIOMIMETIC MEMBRANES FOR SELECTIVE ION-TRANSPORT** Departament de Química Analítica i Química Orgànica, Universitat Rovira i Virgili, Tarragona, Catalonia, Spain
9.30 – 10.00	**Maik Feldmann** **CARBON COMPOSITES FOR LIGHTWEIGHT ENERGY STORAGE APPLICATIONS IN MOBILITY** Hexagon Purus GmbH, Kassel, Germany
	Oral presentations
10.00 – 10.15	A. G. Ayankojo, J. Reut, A. Öpik, V. Syritski **DEVELOPMENT OF A MOLECULARLY IMPRINTED POLYMER-BASED SENSOR FOR ELECTROCHEMICAL DETECTION OF MACROLIDE ANTIBIOTICS** Department of Materials and Environmental Technology, Tallinn University of Technology, Tallinn, Estonia
10.15 – 10.30	A. Kidakova, R. Boroznjak, J. Reut, A. Öpik, V. Syritski **MOLECULARLY IMPRINTED POLYMERS AS SYNTHETIC ANTIBODIES FOR NEUROTROPHIC FACTOR PROTEINS DETECTION** Department of Materials and Environmental Technology, Tallinn University of Technology, Tallinn, Estonia
10.30 – 11.30	**Coffee break and Poster session II.** Artis Centrum Hotels, **Carmen Hall**
Session 5	Artis Centrum Hotels**, Aida Hall** **Chairman prof. R. Merijs Meri**
	Invited Lectures
11.30 – 12.00	**Juozas Vidas Gražulevičius** **GLASS-FORMING DONOR-ACCEPTOR MOLECULAR MATERIALS FOR ELECTROLUMINESCENT AND OXYGEN SENSING APPLICATIONS** Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania
12.00 – 12.30	**Mikhail Smirnov** **ELECTROACTIVE POLYMER HYDROGELS: SYNTHESIS, STRUCTURE AND APPLICATIONS** Institute of Macromolecular Compounds RAS, Saint Petersburg, Russia

	Oral presentations
12.30 – 12.45	J. An[1], A. Dėdinaitė[1,2], F. M. Winnik [3,4,5], P. M. Claesson[1,2] **TRAPPED STATES AFFECT TEMPERATURE-DEPENDENT INTERFACIAL PROPERTIES OF PIPOZ-CONTAINING POLYMERS** [1]KTH Royal Institute of Technology, School of Engineering Sciences in Chemistry, Biotechnology and Health, Department of Chemistry, Surface and Corrosion Science, Stockholm, Sweden [2]RISE Research Institutes of Sweden, Materials and Surfaces, Stockholm, Sweden [3]Department of Chemistry and Faculty of Pharmacy, University of Montreal, Montreal, Canada [4]WPI International Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science, Tsukuba, Japan [5]Department of Chemistry and Faculty of Pharmacy, University of Helsinki, Helsinki Finland
12.45 – 13.00	C. V. Boyneburgk, P. Sälzer, J. Fuchs, H.-P. Heim **INFLUENCE OF THE ADHESION ON THE MECHANICAL CHARACTERISTICS OF SELF-REINFORCED POLYMER-VENEER-COMPOSITES** Institute of Material Engineering, Polymer Engineering, University of Kassel, Kassel, Germany
13.00 – 14.00	**Lunch** Artis Centrum Hotels, **Restaurant "La Traviata"**
Session 6	Artis Centrum Hotels**, Aida Hall** **Chairman prof. U. Cabulis**
	Oral presentations
14.00 – 14.15	M. N. Gorbunova, D. V. Eroshenko **NEW SILVER NANOCOMPOSITES WITH CYTOTOXIC ACTIVITY** Institute of Technical Chemistry, Ural Branch of Russian Academy of Sciences, Perm, Russia
14.15 – 14.30	O. V. Zaborova[1], M. N. Chernikova[2], P. N. Veremeeva[1] **NONDESTRUCTIVE ADSORPTION OF LIPOSOMES ON THE SURFACE OF LATEXES** [1]Department of Chemistry, Lomonosov Moscow State University, Moscow, Russia [2]D. I. Mendeleev University of Chemical Technology of Russia, Moscow, Russia
14.30 – 14.45	A. Efimova[1], G. Krivtsov[2], N. Melik-Nubarov[1], I. Grozdova[1], A. Yaroslavov[1] **NANOCONTAINERS BASED ON CHITOSAN AND ANIONIC LIPOSOMES** [1]Polymer Department, Faculty of Chemistry, M. V. Lomonosov Moscow State University, Moscow, Russia [2]Mechnikov Research Institute of Vaccines and Sera, Moscow, Russia

14.45 – 15.00	P. Franciszczak[1], A. Błędzki[1], E. Pleskot[1], M. Radwański[2], A. Kovalovs[3], G. Japins[3], K. Kalnins[3], A. Chate[3], R. Merijs-Meri[4], J. Zicans[4] **POLYPROPYLENE REINFORCED WITH SHORT PET FIBRES – MANUFACTURING ISSUES AND IMPACT BEHAVIOUR** [1]Institute of Materials Science, West Pomeranian University of Technology Szczecin, Szczecin, Poland [2]Ekotex, Namysłów, Poland [3]Institute of Materials and Structures, Riga Technical University, Riga, Latvia [4]Institute of Polymer Materials, Riga Technical University, Riga, Latvia
15.00 – 15.15	M. Varkale[1], I. Bochkov[1], R. Merijs Meri[1], J. Zicans[1], T. Ivanova[1], A. K. Bledzki[2] **POLYPROPYLENE AND ORGANOCLAY NANOCOMPOSITE MECHANICAL PROPERITIES** [1]Institute of Polymer Materials, Riga Technical University, Riga, Latvia [2]Institute of Materials Science, West Pomeranian University of Technology Szczecin, Poland
15.15 – 15.30	I. Vitkauskienė **CHALLENGES OF PLASTIC PACKAGING** JSC Plastiksė, Vievis, Lithuania
15.30 – 16.30	**Closing session & Coffee break** Artis Centrum Hotels
16.30	**Excursion to Vilnius Old Town**

Poster session I

1. G. Kručaitė[1], D. Tavgenienė[1], Z. Xie[2], X. Lin[2], B. Zhang[2], S. Grigalevičius[1]

POLYETHERS CONTAINING 4-(CARBAZOL-2-YL)-7-ARYLBENZO[C]-1,2,5-THIADIAZOLE CHROMOPHORES AS SOLUTION PROCESSED MATERIALS FOR HOLE TRANSPORTING LAYERS OF OLEDS

[1] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, gintare.krucaite@ktu.lt

[2] State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China

2. T. Kirila, A. Smirnova, A. Blokhin, A. Razina, A. Tenkovtsev, A. Filippov

INFLUENCE OF ARM STRUCTURE ON THE SELF-ORGANIZATION OF EIGHT-ARMS STAR-SHAPED POLY-2-ALKYL-2-OXAZOLINES IN AQUEOUS SOLUTIONS

Institute of Macromolecular Compounds of Russian Academy of Sciences

3. R. S. Bernard, G. Sych, J. V. Gražulevičius

SYNTHESIS AND PROPERTIES OF TRIPHENYLETHYLENE DERIVATIVES CONTAINING CARBAZOLE AND ACRIDAN MOIETIES

Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, ronit.bernard@ktu.edu

4. D. Blazevicius[1], D. Tavgeniene[1], S. Grigalevicius[1], D. K. Dubey[2], M. Singh[2], S. Sahoo[2], J. H. Jou[2]

BICARBAZOLE-BASED POLYMERIC NETWORK AS A MIXED HOST FOR EFFICIENT SOLUTION-PROCESSED RED ORGANIC LIGHT EMITTING DIODES

[1] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Radvilen plentas 19, LT 50254, Kaunas, Lithuania, dovydas.blazevicius@ktu.lt

[2] Department of Materials Science and Engineering, National Tsing Hua University, Hsinchu 30013, Taiwan

5. S. Nasiri, M. Cekaviciute, J. Simokaitiene, A. Petrauskaite, D. Volyniuk, V. Andruleviciene, O. Bezvikonnyi, J. V. Grazulevicius

TRI AND TETRAPHENYLETHENYL, SUBSTITUTED CARBAZOLE DERIVATIVES: SYNTHESIS, CHARACTERIZATION AND EXHIBITING AIEE AS EFFICIENT HOLE-TRANSPORTING OLED EMITTERS

Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania

6. D. Volyniuk[1], K. Leitonas[1], J. Simokaitiene[1], E. Skuodis[1], M.D. Thiyagarajan[2], U.M. Balijapalli[2], M. Pathak[2], K. Sathiyanarayanan[2], P. Arsenyan[3], J.V. Grazulevicius[1]

WHITE SOLUTION-PROCESSED OLEDS BASED ON EMITTERS WITH EITHER PHOSPHORESCENCE, PROMPT OR THERMALLY ACTIVATED DELAYED FLUORESCENCE

[1] Kaunas University of Technology, Department of Polymer Chemistry and Technology, Radvilenu pl. 19, LT-50254, Kaunas, Lithuania; e-mail: dvolynyuk@gmail.com

[2] Chemistry Department, School of Advanced Sciences, VIT University, Vellore, 632014, Tamil Nadu, India

[3] Latvian Institute of Organic Synthesis, Aizkraukles 21, LV-1006, Riga, Latvia

7.

S. Kasetaite[1], J. Ostrauskaite[1], A. Serra[2]

THIOL-EPOXY LINSEED OIL-BASED POLYMERS

[1] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, sigita.kasetaite@ktu.lt

[2] Department of Analytical and Organic Chemistry, University Rovira i Virgili, Tarragona, Spain

8.

A. A. Vaitusionak[1,2], I. V. Vasilenko[1], S. V. Kostjuk[1,2], G. Sych[3], A. Tomkeviciene[3], J. V. Grazulevicius[3]

RAFT (CO)POLYMERIZATION OF CARBAZOLE-CONTAINING STYRENE MONOMERS OF ELECTRON-DONOR AND ELECTRON-ACCEPTOR TYPES

[1] Department of Chemistry, Belarusian State University, Minsk, Belarus, vaitusionak@bsu.by

[2] Research Institute for Physical Chemical Problems of the Belarusian State University, Minsk, Belarus

[3] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania

9.

S. Rodchenko[1], A. Amirova[1], S. Milenin[2], M. Kurlykin[1], A. Tenkovtsev[1], A. Filippov[1]

THE STUDY OF SPHERICAL AND CYLINDRICAL BRUSHES WITH THERMOSENSITIVE POLYISOPROPYLOXAZOLINE CHAINS

[1] Institute of Macromolecular Compounds of the Russian Academy of Sciences, Saint-Petersburg, Russia, srfm.rodchenko@gmail.com

[2] Enikolopov Institute of Synthetic Polymeric Materials of the Russian Academy of Sciences, Moscow, Russia

10.

D. Gudeika[1], K. Dabrovolskas[1], S. Benhattab[2], M. B. Manaa[2], N. Berton[2], J. Bouclé[3], F. Tran Van[2], B. Schmaltz[2], D. Volyniuk[1], J. V. Grazulevicius[1]

DIMETHOXY-SUBSTITUTED TRIPHENYLAMINE DYES FOR SOLID STATE DYE SENSITIZED SOLAR CELLS

[1] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, gudeika.dalius@gmail.com

[2] Laboratoire de Physico-Chimie des Matériaux et des Electrolytes pour l'Energie (PCM2E), Université de Tours, Tours, France

[3] Institut XLIM UMR 7252, Université de Limoges/CNRS, Limoges, France

11. U. Tsiko, G. Sych, O. Bezvikonnyi, J. Simokaitiene, D. Volynuik, J. V. Grazulevicius

NON-DOPED ORGANIC LIGHT-EMITTING DIODES BASED ON COMPOUNDS EXHIBITING AGGREGATION INDUCED EMISSION ENHANCMENT

Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, uliana.tsiko@ktu.edu

12. A. Barkane[1], S. Gaidukovs[1], O. Platnieks[1], M. Jurinovs[1], Y. Habibi[2], N. Kasmi[2]

KINETICS OF VEGETABLE OIL EPOXIDIZED ACRYLATE PHOTOINDUCED CURING

[1] Institute of Polymer Materials, Faculty of Materials Science and Applied Chemistry, Riga Technical University, P. Valdena 3/7, LV-1048 Riga, Latvia, Anda.Barkane@rtu.lv

[2] Luxembourg Institute of Science and Technology, Department of Materials Research and Technology (MRT), Esch-sur-Alzette, Luxembourg

13. A. Ābele[1], R. Meri Merijs[1], R Bērziņa[1], J Zicāns[1], V Haritonovs[2]

CHARACTERIZATION OF BITUMEN MASTICS PROPERTIES

[1] Institute of Polymer Materials, Faculty of Materials Science and Applied Chemistry, Riga Technical University, Riga, Latvia, Agnese.Abele_1@rtu.lv

[2] Department of Roads and Bridges, Faculty of Civil Engineering, Riga Technical University, Riga, Latvia

14. A. Navaruckienė, J. Ostrauskaitė

REAL-TIME PHOTORHEOMETRICAL STUDY OF VANILLIN-BASED RESINS

Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania

15. R. Iskandarov[1], O. Chulieieva[2], V. Plavan[1], D. Novak[1]

REGULATION OF REOLOGICAL PROPERTIES OF FIRE-SAFETY POLYMERIC COMPOSITIONS

[1] Kiev National University of Technology and Design, plavan.vp@knutd.edu.ua

[2] Private Joint-Stock Company "PLANT PIVDENKABEL", echuleeva@ukr.net

16. M. Lebedevaitė, J. Ostrauskaitė

INVESTIGATION OF UV-CURED ACRYLATED EPOXIDIZED SOYBEAN OIL FILMS WITH DIFFERENT PHOTOINITIATORS

Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, jolita.ostrauskaite@ktu.lt

17. I. Bute, S. Stankevich, O. Starkova, O. Bulderberga, and A. Aniskevich

KNOWLEDGE KIT FOR DESIGN OF NANOMODIFIED POLYOLEFIN MULTILAYER PRODUCTS WITH ENHANCED OPERATIONAL PROPERTIES

Institute for Mechanics of Materials, University of Latvia, irina.bute@lu.lv

18. R. Iskandarov, D. Novak, Y. Budash, V. Plavan

STRUCTURAL RESEARCHES OF POLYETHYLENE COMPOSITIONS FILLED BY COPPER-COATED GRAPHITE AND CARBON NANOTUBES

Department of Applied Ecology, Technology of Polymers and Chemical Fibers, Kyiv National University of Technologies and Design, Kyiv, Ukraine, novak.knutd@gmail.com

19. I. A. Valieva[1], M. Y. Goikhman[1,2], I. V. Podeshvo[1], I. V. Gofman[1], R. Yu. Smyslov[1], L. S. Litvinova[1], A. V. Yakimanskii[1,2]

POLYMER BRUSH BASED ON ANTHRAZOLINE-CONTAINING DIAMINE

[1]Institute of Macromolecular Compounds of Russian Academy of Sciences, St. Petersburg, Russia

[2]Saint Petersburg State University, Institute of Chemistry, St. Petersburg, Russia, valieva@hq.macro.ru

20. S. Gailiūnaitė[1], T. Kochanė[1], V. Bukelskienė[2], D. Baltriukienė[2], S. Budrienė[1]

PREPARATION AND CHARACTERIZATION OF α,ω -DIHYDROXY-POLY(DIMETHYLSILOXANE) MODIFIED POLYESTERS FOR TISSUE ENGINEERING

[1]Vilnius University, Faculty of Chemistry and Geosciences, Institute of Chemistry, Naugarduko 24, 03225 Vilnius, Lithuania sonata.gailiunaite@chgf.stud.vu.lt

[2]Vilnius University, Life Sciences Center, Institute of Biochemistry, Saulėtekio av. 7, 10257 Vilnius, Lithuania

21. J. Jonikaitė-Švėgždienė, M. P. Mameniškis, R. Makuška

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Institute of Chemistry, Vilnius University, Vilnius, Lithuania, jurate.jonikaite-svegzdiene@chf.vu.lt

22. M. Jurkūnas[1,2], A. Stirkė[1], A. Vareikis[2]

INVESTIGATION OF CONJUGATED WATER SOLUBLE POLYMER MPS-PPV

[1] Department of Material Science and Electrical Engineering, Center for Physical Sciences and Technology, Lithuania, marijus.jurkunas@chf.stud.vu.lt

[2] Department of Polymer Chemistry of Faculty of Chemistry and Geosciences, Vilnius University, Lithuania

23. M. Steponavičiūtė, V. Klimkevičius, R. Makuška

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Institute of Chemistry, Vilnius University, Naugarduko str. 24, 03225 Vilnius, Lithuania, steponaviciute.medeina@gmail.com

24. E. Kubricenko, T. Krivorotova

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Institute of Chemistry, Vilnius University, Vilnius, Lithuania, tania.krivorot@gmail.com

25. A. Gosteva, G. Kolbina

MAXWELL EFFECT IN SOLUTIONS OF AMPHIPHILIC COPOLYMERS BASED ON N-METYL-N-VINYLACETAMIDE

Institute of Macromolecular Compounds, Russian Academy of Sciences, St. Petersburg, Russia, anna.gosteva.imc@gmail.com

26. A. I. Gostev, D. V. Grigoriev, S. A. Satarova, E. V. Sivtsov

SYNTHESIS OF N-VINYLSUCCINIMIDE COPOLYMERS WITH VINYL ACETATE AND N-VINYLPYRROLIDONE UNDER REVERSIBLE CHAIN TRANSFER CONDITIONS

Saint-Petersburg State Institute of Technology, Saint-Petersburg, Russia, dmitriy-get@rambler.ru

27. M. I. Hulnik[1,2], O. V. Kuharenko[1,2], I. V. Vasilenko[1], S. V. Kostjuk[1,2]

CONTROLLED CATIONIC POLYMERIZATION OF TRANS-ANETHOLE

[1] Research Institute for Physical Chemical Problems of the Belarusian State University, Minsk, Belarus, maksim.gulnik@gmail.com
[2] Department of Chemistry, Belarusian State University, Minsk, Belarus

28. V. K. Vorobiov[1], M. P. Sokolova[1], A. N. Bugrov[1,3], S. N. Bolshakov[3], I. A. Kasatkin[2], M. A. Smirnov[1]

ELECTROCHEMICAL PERFORMANCE OF HYBRID POLYPYRROLE / Fe_2O_3 HYDROGEL

[1] Institute of Macromolecular Compounds, Russian Academy of Sciences, Saint Petersburg, Russia, vrbvrbvrb@mail.ru
[2] Saint Petersburg State University, Saint Petersburg, Russia
[3] Saint Petersburg Electrotechnical University "LETI", Saint Petersburg, Russia

29. A. Kashina[1], T. Meleshko[1], N. Bogorad[1], M.Bezrukova[1], A.Yakimansky[1,2]

GRAFTED PENTABLOCK-COPOLYMERS WITH MIXED LINEAR-BRUSH TOPOLOGY PMMA-BLOCK-PCL-BLOCK-(PI-GRAFT-PMMA)-BLOCK-PCL-BLOCK-PMMA

[1] Institute of Macromolecular Compounds of Russian Academy of Sciences, St.Petersburg, Russia, kashina.anna@mail.ru
[2] Institute of Chemistry, Saint Petersburg State University, St.Petersburg, Russia

30. I. Ivanov[1], M. Simonova[1], A. Kashina[1], T. Meleshko[1], A. Filippov[1], A. Yakimansky[1,2]

DESIGN, SYNTHESIS AND SELF-ASSEMBLY OF AMPHIPHILIC MULTICOMPONENT MOLECULAR POLYIMIDE BRUSHES

[1] Institute of macromolecular compounds of the Russian academy of sciences, St. Petersburg, Russia, gangspil@gmail.com
[2] Saint Petersburg State University, Institute of Chemistry, St. Petersburg, Petergof, Russia

31. O. Dommes, A. Gosteva, O. Okatova, G. M. Pavlov

BEHAVIOR OF N-METHYL-N-VINYLACETAMIDE AND N-METHYL-N-VINYLAMINE HYDROCHLORIDE ALKYLATED COPOLYMERS IN DIFFERENT SOLVENTS

Institute of Macromolecular Compounds, Russian Academy of Sciences, St. Petersburg, Russia, olga.dommes.imc@gmail.com

32. M. N. Gorbunova

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Institute of Technical Chemistry, Ural Branch of Russian Academy of Sciences, Korolev str., 3, Perm 614013, Russia mngorb@yandex.ru

33. I. A Berezianko[1,2], I. V. Vasilenko[2], D. I. Shiman[2], S. V. Kostjuk[1,2,3]

SYNTHESIS OF HIGHLY REACTIVE POLYISOBUTYLENE FROM C_4 MIXED FEED USING CHLOROFERRATE IMIDAZOLE-BASED IONIC LIQUID AS CATALYST

[1] Belarusian State University, Department of Chemistry, Minsk, Belarus, bereziankoivan@bsu.by

[2] Research Institute for Physical Chemical Problems of the Belarusian State University, Minsk, Belarus

[3] Sechenov First Moscow State Medical University, Institute for Regenerative Medicine, Moscow, Russia

34. A. Bernava

COATING FOR REDUCING THE FLAMMABILITY OF LINEN FABRIC

Riga Technical University, Institute of Polymer Materials, Riga, Latvia, aina.bernava@rtu.lv

Poster session II

1. E. Krasnikov[1], A. Efimova[1], G. Krivtsov[2], G. Rudenskaya[1], A. Yaroslavov[1]

BIODEGRADABLE MULTILIPOSOMAL CONTAINERS BASED ON CHITOSAN

[1] Polymer Department, Faculty of Chemistry, M.V.Lomonosov Moscow State University, Moscow, Russia, soloveyteam@mail.ru
[2] Mechnikov Research Institute of Vaccines and Sera, Moscow, Russia

2. K. Trosheva[1], A. Efimova[1], Z. Shifrina[2], A. Yaroslavov[1]

INTERACTION OF MULTICOMPONENT ANIONIC LIPOSOMES WITH A CATIONIC DENDRIMER

[1] Polymer Department, Faculty of Chemistry, M.V.Lomonosov Moscow State University, Moscow, Russia, ksyu.trosheva@gmail.com
[2] A.N. Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences, Moscow, Russia

3. V. Navikaite-Snipaitiene[1], R. Rutkaite[1], D. Simanaviciute[1], K. Almonaityte[1], V. Vaskeliene[2], R. Raisutis[2]

CROSS-LINKED CATIONIC STARCH SORBENTS FOR REMOVAL OF IBUPROFEN FROM WATER

[1] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, vesta.navikaite@ktu.lt
[2] Prof. Kazimieras Barsauskas Ultrasound Research Institute, Kaunas University of Technology, Kaunas, Lithuania

4. E. Celitan, R. Gruškienė, J. Sereikaitė

ANTIOXIDANT ACTIVITY OF □-CAROTENE LOADED THREE-COMPONENT PARTICLES

Department of Chemistry and Bioengineering, Vilnius Gediminas Technical University, Vilnius, Lithuania, ruta.gruskiene@vgtu.lt

5. M. P. Sokolova[1,2], V. K. Vorobiov[1], A. L. Nikolaeva[1], I. V. Abalov[1], I. V. Gofman[1], A. V. Smirnov[3], M. A. Smirnov[1]

STRUCTURE AND THERMAL PROPERTIES OF CHITOSAN/DEEP EUTECTIC SOLVENT FILMS CONTAINING LACTIC ACID AND CHOLINE CHLORIDE

[1] Institute of Macromolecular Compounds RAS, Saint-Petersburg, Russia, pmarip@mail.ru
[2] Saint Petersburg State University, Saint Petersburg, Russia
[3]ITMO University, Saint-Petersburg, Russia

6. A. S. Ivanova, A. A. Polotsky

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Institute of macromolecular compounds of the Russian academy of sciences, Saint-Petersburg, Russia, sasinaas@yandex.ru

7. D. Simanaviciute[1], D. Liudvinaviciute[1], R. Rutkaite[1], V. Coma[2]

FORMATION AND PROPERTIES OF CAFFEIC ACID AND CHITOSAN COMPLEXES

[1] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania, deimante.simanaviciute@ktu.lt
[2] University of Bordeaux, UMR 5629, CNRS, LCPO, France

8. M. P. Zhaldak[1], O. R. Mokrousova[1]

STABILIZATION OF COLLAGEN STRUCTURE WITH MONTMORILLONITE DISPERSIONS

[1] Department of Commodity Science and Customs Affairs, Kiev National University of Trade and Economics, Kiev, maryna070992@ukr.net

9. D. Pirone[1,2,3], V. Marturano[4], R. Del Pezzo[1,2,3], S. Fernandez Prieto[3], T. Underiner[5], M. Giamberini[1] and B. Tylkowski[1,2,5,*]

PHOTO-TRIGGERED CAPSULES

[1] Department of Chemical Engineering, Rovira i Virgili University, Av. Països Catalans 26, 43007 Tarragona
[2] Centre Tecnològic de la Química de Catalunya, Carrer Marcelli Domingo s/n, 43007 Tarragona, Spain
[3] The Procter and Gamble Company, Temselaan 100, Strombeek-Bever 1853, Belgium
[4] Department of Chemical, Materials, and Production Engineering (DICMAPI), University of Naples "Federico II", P. le Tecchio, 80, 80125 Napoli, Italy
[5] The Procter and Gamble Company, 6210 Center Hill Avenue, Cincinnati, OH 45224, USA

10. A. Bočkuvienė[1], L. Juravičius[1], R. Stanevičienė[2], E. Servienė[2]

CHITOOLOGOSACCARIDE AND ITS DERIVATIVES: SYTHESIS, INVESTIGATION AND DETERMINATION OF ANTIBACTERIAL ACTIVITY

[1] Institute of Chemistry, Vilnius University, Vilnius, Lithuania, alma.bockuviene@chf.vu.lt
[2] Nature Research Centre, Vilnius, Lithuania

11. V. Jankauskaitė[1], I. Danisevičienė[1], A. Andziukevičiūtė-Jankūnienė[1], V. Raudonienė[2], A. Paškevičius[2]

POLYVINYL BUTYRAL FILMS WITH ANTIMICROBIAL ACTIVITY

[1] Department of Production Engineering, Kaunas University of Technology, Kaunas, Lithuania, virjan@ktu.lt
[2] Nature Research Center, Institute of Botany, Vilnius, Lithuania

12. V. Klimkevičius, A. Babičeva, M. Janulevičius, R. Makuška and A. Katelnikovas

EFFECT OF CATIONIC BRUSH COPOLYMERS ON COLLOIDAL STABILITY OF $GdPO_4$ PARTICLES WITH DIFFERENT MORPHOLOGY

Institute of Chemistry, Vilnius University, Naugarduko 24, LT-03225 Vilnius, Lithuania, vaidas.klimkevicius@chf.vu.lt

13. G. Inkrataitė[1], J. Aglinskaitė[2], R. Skaudžius[1], P. Vitta[2]

A STUDY ON PROPERTIES OF CERIUM DOPED YTTRIUM ALUMINIUM GARNET AND POLYMER COMPOSITES

[1] Institute of Chemistry, Vilnius University, Naugarduko 24, Vilnius, Lithuania, greta.inkrataite@stud.chgf.vu.lt

[2] Institute of Photonics and Nanotechnology, Vilnius University, Saulėtekio av. 3, Vilnius, Lithuania

14. M. Šulcienė, I. Matijošytė[1], B. Kolvenbach[2]

ENZYMES IN POLYMER CHEMISTRY: PRODUCTION OF BIOPOLYOLS VIA CHEMO-ENZYMATIC ROUTE

[1] Vilnius University, Life Sciences Center, Institute of Biotechnology, Sector of Applied Biocatalysis, inga.matijosyte@bti.vu.lt

[2] Institute for Ecopreneurship, School of Life Sciences, University of Applied Sciences Northwestern Switzerland

15. J. Bitenieks[1], K. Buks[2], R Merijs Meri[1], J. Zicans[1], T. Ivanova[1], J. Andzane[2]

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[1] Institute of Polymer Materials, Riga Technical University, Riga, Latvia, juris.bitenieks@rtu.lv

[2] Institute of Chemical Physics, University of Latvia, Latvia

16. I. Bochkov[1], M. Varkale[1], R. Merijs Meri[1], J. Zicans[1], A. K. Bledzki[2]

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[1] Institute of Polymer Materials, Riga Technical University, Riga, Latvia, Ivans.bockovs@rtu.lv

[2] Institute of Materials Science, West Pomeranian University of Technology Szczecin, Poland

17. I. Bochkov[1], G. Japins[2], A. Kovalovs[2], P. Franciszczak[2]

IMPACT STRENGTH ANALYSIS OF PET/SOFT WOOD FIBRES HYBRID COMPOSITES BY DROP WEIGHT TEST

[1] Institute of Polymer Materials, Riga Technical University, Riga, Latvia

[2] Institute of Materials and Structures, Riga Technical University, Riga, Latvia

[3] Institute of Materials Science, West Pomeranian University of Technology Szczecin, Szczecin, Poland

18. A. Kovalovs[1], K. Kalnins[1], P. Franciszczak[2]

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[1] Institute of Materials and Structures, Riga Technical University, Riga, Latvia, andrejs.kovalovs@rtu.lv

[2] Institute of Materials Science, West Pomeranian University of Technology Szczecin, Szczecin, Poland

19. A. Barkane[1], O. Platnieks[1], S. Gaidukovs[1], G. Gaidukova[1], I. Filipova[2], M. Laka[2], M. Skute[2], V. Fridrihsone[2]

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[1] Institute of Polymer Materials, Faculty of Materials Science and Applied Chemistry, Riga Technical University, Riga, Latvia

[2] Latvian State Institute of Wood Chemistry, Riga, Latvia

20.

O. Platnieks[1], N. Neibolts[1], S. Gaidukovs[1], A. Barkane[1], V. K. Thakur[2], I. Filipova[3], V. Fridrihsone[3], M. Enachescu[4], Z. Zelca[5]

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[1] Faculty of Material Science and Applied Chemistry, Institute of Polymer Materials, Riga Technical University, Latvia, oplatnieks@gmail.com

[2] School of Aerospace, Transport and Manufacturing, Cranfield University, United Kingdom

[3] Latvian State Institute of Wood Chemistry, Latvia

[4] Center for Surface Science and Nanotechnology, University Politehnica of Bucharest, Romania

[5] Institute of Design Technologies, Riga Technical University, Latvia

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G. Shulga, B. Neiberte, A. Verovkins, J. Jaunslavietis, S. Vitolina, T. Betkers

THE EFFECT OF FIXED NITROGEN CONTENT IN MODIFIED PLYWOOD DUST AS A FILLER ON PROPERTIES OF WOOD-POLYMER COMPOSITES

Latvian State Institute of Wood Chemistry, Riga, Latvia, shulga@junik.lv

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J. Bendoraitiene[1], K. Almonaityte[1], R. Rutkaite[1], V. Coma[2]

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[1] Department of Polymer Chemistry and Technology, Kaunas University of Technology, Lithuania, joana.bendoraitiene@ktu.lt

[2] University of Bordeaux, UMR 5629, CNRS, LCPO, France

23.

J. Kajaks[1,*], K. Kalnins[1,2], J. Matvejs[3]

WOOD PLASTIC COMPOSTES ADHESIVE ACTIVITY INVESTIGATIONS TO IMPROVE THE WATER RESISTANCE OF BIRCH PLYWOOD

[1*] Institute of Polymer Materials, Faculty of Material Science and Applied Chemistry, Riga Technical University, Riga, LV-1048, P.Valdena str.3/7, Latvia, janis.kajaks@rtu.lv

[2] Troja LTD, Riga, LV-1004, Bauskas str.143, Latvia, [3] Ļatvijas finieris JSC, Riga, LV-1004, Bauskas str.59, Latvia , [2]karlis.kalnins@finieris.lv, [3]juris.matvejs@finieris.lv

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I. Tautkutė-Stankuvienė, L. Simanavičius, E. Kumpikaitė

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Department of Production Engineering, Faculty of Mechanical Engineering and Design, Kaunas University of Technology, Kaunas, Lithuania, indre.tautkute-stankuviene@ktu.edu

25. A. Berkovich, P. Ledneva, B. Mankaev, A. Zhirnov, S. Karlov

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Chemistry department, Lomonosov Moscow State University, Moscow, Russia, annber@yandex.ru

26. V. Kleivaitė, R. Milašius

MATHEMATICAL EVALUATION OF NANOFIBERS POROSITY

Faculty of Mechanical Engineering and Design, Kaunas University of Technology, Studentų str. 56, LT-51424 Kaunas, Lithuania, e-mail: virginija.kleivaite@ktu.edu; rimvydas.milasius@ktu.lt

27. O. Bulderberga, S. Vidinejevs, and A. Aniskevich

SMART PREPREG AS DAMAGE VISUAL INDICATION SYSTEM

Institute for Mechanics of Materials, University of Latvia, Riga, Latvia, olga.bulderberga@lu.lv

28. A. Aniskevich[1], S. Stankevich[1], J. Sevcenko[1], O. Bulderberga[1], and D. Zeleniakiene[2]

METHODOLOGY OF TESTING OF SMART POLYMER NANOCOMPOSITES PRODUCED BY 3D PRINTING

[1] Institute for Mechanics of Materials, University of Latvia, Riga, Latvia, andrey.aniskevich@pmi.lu.lv
[2] Faculty of Mechanical Engineering and Design, Department of Mechanical Engineering, Kaunas University of Technology, Kaunas, Lithuania

29. E. E. Bibik, E. V. Sivtsov

LAYER RHEOLOGICAL MODEL OF THE FLOW OF SYSTEMS CONTAINING POLYMERS AND SURFACTANTS

Saint-Petersburg State Institute of Technology, Saint-Petersburg, Russia, pjeka@yahoo.fr

30. M. Klute[1], C. von Boyneburgk[1], H.-P. Heim[1]

BLENDING CA WITH PBS TO INCREASE THE BONDING STRENGTH IN TWO-COMPONENT INJECTION MOLDING

[1]Institute of Material Engineering, Polymer Engineering, University of Kassel, Kassel, Germany, c.vonboyneburgk@uni-kassel.de

31. V. Valeika, K. Beleška, V. Valeikienė

ACTION OF ENZYME ON HIDE STRUCTURE DURING LIME FREE UNHAIRING

Department of Polymer Chemistry and Technology, Kaunas University of Technology, Kaunas, Lithuania

32. A. Cirvele[1], L. Malers[2]

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[1-2] Institute of Polymer Materials, Faculty of Material Science and Applied Chemistry, Riga Technical University, Latvia, laimonis.malers@rtu.lv

33.

A. Bugrov[1,2], G. Vaganov[1], V. Smirnova[1], E. Popova[1]

POLYTETRAHYDROFURAN-BASED THERMOPLASTIC POLYURETHANE ELASTOMERS MODIFIED BY FERRITE NANOPARTICLES

[1] Institute of Macromolecular Compounds Russian Academy of Sciences, Saint-Petersburg, Russia, alexander.n.bugrov@gmail.com
[2] Saint Petersburg Electrotechnical University "LETI", Saint-Petersburg, Russia

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T. Ivanova[1], R. Merijs-Meri[1], A. Abele[1], J. Zicans[1], S. Reihmane[1], V. Haritonovs[2]

ANALYSIS OF THERMOPLASTIC ELASTOMER MODIFIED BITUMEN PERFORMANCE OVER A BROAD TEMPERATURE RANGE

[1] Institute of Polymer Materials, Faculty of Materials Science and Applied Chemistry, Riga Technical University, Riga, Latvia, Tatjana.Ivanova@rtu.lv
[2] Department of Roads and Bridges, Faculty of Civil Engineering, Riga Technical University, Latvia

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