

Proceedings of the 6th International Conference on Polysaccharides-Glycoscience

CONTENTS:

KEY-NOTE LECTURES

Karel Bezouška	AVENUES OF THE CONTEMPORARY GLYCOSCIENCE: FROM GLYCOMIC TECHNOLOGIES TO DRUGS THAT ARE SWEET INSIDE AS WELL AS AT THE SURFACE	5
Jay-Lin Jane, Hongxin Jiang, Jovin Hasjim	RESISTANT STARCH AND ITS HEALTH BENEFITS	9
Zuzana Košťálová, Z. Hromádková, A. Ebringerová, G. Nosáľová, L. Prisenžňáková	ISOLATION, STRUCTURE AND PROPERTIES OF PECTIC POLYSACCHARIDES FROM THE PUMPKIN (<i>Cucurbita pepo</i> L. var. <i>Styriaca</i>)	12
Miroslav Novák	β-GLUCAN COMPOSITION AND STRUCTURE: AN EVOLUTION OF VIEWS	17
Werner Praznik, Anton Huber, Jana Copikova	MOLECULAR MASS OF WATER/ALKALI SOLUBLE POLYSACCHARIDES FROM MUSHROOM APPLIED IN TMC	22
Tadeusz Spychaj	EXTRUDED THERMOPLASTIC STARCH-BASED (NANO)MATERIALS FOR TECHNICAL PURPOSES	24
Ladislav Svarovsky	SEPARATION, THICKENING, CLASSIFICATION AND WASHING OF WHEAT STARCH WITH HYDROCYCLONES	29
L. Vannucci, A. Fiserova, P. Rossmann, V. Kren, P. Krist, K. Bezouska, M. Saieh, V. Ullmanova-Benson, K. Klimesova, V. Grobarova, J. Krizan, V. Sasek	PERSPECTIVES IN CANCER TREATMENT BY A GLYCOBIOLOGICAL APPROACH: RESULTS IN EXPERIMENTAL TUMOR MODELS <i>IN VIVO</i>	34

ORAL PRESENTATIONS

Karin Mardo, Triinu Visnapuu, Tiina Alamäe	ISOLATION AND HIGH-THROUGHPUT SCREENING METHODS OF LEVANSUCRASE MUTANTS OF A PLANT PATHOGEN <i>Pseudomonas syringae</i> DC3000	36
Marta Brlejšová, Milan Čertík, Eva Petrášiková	THE STUDY OF ANTIOXIDANT PROPERTIES OF YEAST GLYCOPROTEINS	40
Petr Duchek, Milena Špírková	HYBRID STRUCTURES BASED ON MONTMORILLONITE/MODIFIED STARCH INTERCALATE	44
Anna Hejšlová, Jiří Blahovec	β-GLUCAN FILMS SUBJECTED TO LOADING/UNLOADING TESTS IN TWO CYCLES	48
Martina Hermannová, Tereza Ehlova, Veronika Leierova, Lucie Trojtlerova, Vladimír Velebný	AN ACCURATE DETERMINATION OF HYALURONAN MOLAR MASS AND POLYDISPERSITY	53
Lesław Juszczak, Tomasz Zięba, Artur Gryszkin, Sławomir Pietrzyk, Teresa Fortuna	EFFECT OF ACETYLATION ON SOME PHYSICOCHEMICAL PROPERTIES OF CASSAVA STARCH	56

Renáta Kováčová, Miroslava Mihulová, Marcela Širmerová, Jiří Štětina	INFLUENCE OF SUGAR BEET PECTIN ON EMULSIFYING PROPERTIES OF WHEY PROTEINS	61
Dobromila Leitnerová, Jana Dostálová, Aneta Šafaříková	RESISTANT STARCH INTAKE IN CZECH REPUBLIC	65
Renate Loeppert, Werner Praznik, Mayank Thakur	RELEVANCE OF POLYSACCHARIDES IN AYURVEDIC DRUGS	68
Carolina Pupe, Luiz Cláudio Da Silva, Aridio Mattos Junior, Lúcio Cabral	PREPARATION AND CHARACTERIZATION OF INCLUSION COMPLEX FORMATION BETWEEN CHLORHEXIDINE AND β - CYCLODEXTRIN DERIVATIVES	69
Luiz Cláudio Da Silva, Carolina Pupe, Mariane Assafim, Bárbara Camarinha, Karen Tavares, Leonardo Cinelli, Priscilla Finotelli, Lúcio Cabral	POLYSACCHARIDES BASED NANOPARTICLES: DEVELOPMENT AND CHARACTERIZATION	73
Daniela Šmejkalová, Gloria Huerta Angeles, Radovan Buffa, Vladimír Velebný	A NOVEL APPROACH FOR PREPARATION OF AMIDE DERIVATES OF HYALURONAN	77

POSTERS

Krzysztof Buksa, Halina Gambuś, Agata Chowaniec	THE INFLUENCE OF ENZYMATIC HYDROLYSIS ON MOLECULAR MASS OF WATER SOLUBLE ARABINOXYLANS	79
Krzysztof Buksa, Anna Nowotna, Karolina Wrońska	THE INFLUENCE OF OXIDATION ON MOLECULAR MASS OF WATER SOLUBLE ARABINOXYLANS	80
Krzysztof Buksa, Anna Nowotna, Mariola Wierdak	CHROMATOGRAPHIC ANALYSIS OF MODIFIED WATER SOLUBLE PENTOSANS	81
Radmila Dostálová, Jiří Horáček, Rudolf Trojan, Ivana Hasalová	STUDY OF RESISTANT STARCH CONTENT IN PEAS AFTER HARVESTING TREATMENT	82
Soňa Gavurníková, Michaela Havrlentová, Alžbeta Žofajová, Magdaléna Bielíková, Jozef Gubiš	ADDITION OF DIETARY FIBRE, RESISTANT STARCH AND β -D- GLUCAN TO WHEAT FLOUR AND THEIR EFFECT ON TECHNOLOGICAL QUALITY, BAKING PROPERTIES OF WHEAT DOUGHS AND BREAD QUALITY	86
Eva Gregorová, Michaela Chmelíková, Willi Pabst	CORN STARCH AS A PORE-FORMING AGENT AND MICROSTRUCTURAL CHARACTERIZATION OF POROUS CERAMICS BY IMAGE ANALYSIS	91
Michaela Havrlentová, Klára Križanová, Alžbeta Žofajová, Jozef Gubiš	MALTING QUALITY AND GRAIN YIELD OF SPRING BARLEY GENOTYPES	96
Andrea Hlinková, Michaela Havrlentová, Daniela Dvončová, Alžbeta Žofajová	EFFECT OF MINERAL NUTRITION ON THE CONTENT OF β -D- GLUCAN IN OAT GRAIN	100
Katarína Tomšíková, Viera Horváthová, Vladimír Ondáš, Ernest Šturdík	FRACTIONATION OF WHEAT GROATS FOR FERMENTATIVE ETHANOL PRODUCTION	103
Zdenka Hromádková, Anna Ebringerová, Ján Hirsch, Nadežda Vrchotová	ISOLATION AND CHARACTERISATION OF POLYSACCHARIDES FROM THE SPELT GRAIN	108

Ivan Švec, Marie Hrušková, Jana Dvořáková	COMMERCIAL WHEAT ROLLS QUALITY MONITORING	112
Marie Hrušková, Ivan Švec, Ivana Jurinová	WHEAT/RICE FLOUR COMPOSITE FOR BREAD AND BISCUIT	115
Martina Hudcovicová, Daniela Mikulíková, Lenka Klčová, Svetlana Šliková, Valéria Šudyová, Daniel Mihálik, Ján Kraic	DEVELOPMENT OF NEW WINTER WHEAT LINES WITH STARCH WITHOUT AMYLOSE BY USE OF PCR-BASED MARKERS	118
Jana Jurovátá, Hana Súkopová, Filip Kraic, František Gago	CHEMOMETRIC EVALUATION OF WHEAT QUALITY FOR BIOFUEL PRODUCTION	121
Lesław Juszczak, Mariusz Witczak, Dorota Gałkowska, Teresa Fortuna, Grażyna Jaworska	THERMAL AND RHEOLOGICAL PROPERTIES OF STARCHES OBTAINED FROM POLISH WHEAT VARIETIES	124
Dorota Gałkowska, Lesław Juszczak, Magda Długosz	RHEOLOGICAL PROPERTIES OF HIGH-METHOXY PECTIN GELS WITH MODIFIED POTATO STARCH	129
Hande Kazak, Özlem Ates, Faruk Kucukasik, Kazim Yalcin Arga, Ebru Toksoy Öner	LEVAN PRODUCTION BY <i>Halomonas</i> sp.	133
Eva Lhotáková, František Kvasnička, Kateřina Vaculová, Jana Čopíková, Andriy Synytsya, Michal Voldřich	DISCRIMINATION OF BARLEY VARIETES BY SPECTROSCOPIC AND STATISTICAL METHODS	135
Milan Marounek, Zdeněk Volek, Eva Skřivanová, Jan Tůma, Andrej Synytsya	EFFECT OF PALMITOYLCHITOSAN ON CHOLESTEROL HOMEOSTASIS IN RATS	139
Jana Krejčová, Štěpánka Matějková	SOIL POLYSACCHARIDES AND THEIR RELATIONSHIP TO OTHER FORMS OF SOIL CARBON	141
Ghazi Benmessaoud, Barbara Roge, Mohamed Mathlouthi	EXTRACTION, PURIFICATION AND PHYSICOCHEMICAL CHARACTERIZATION OF POLYSACCHARIDES OF GREEN ALGAE (<i>Ulva</i> sp. AND <i>Enteromorpha</i> sp)	146
Karolina Miśkiewicz, Ewa Nebesny, Aneta Antczak, Jadwiga Gołąbczak, Justyna Rosicka-Kaczmarek	THE EFFECT OF FLOUR SORT ON THE CARBOHYDRATE PROFILE OF FLOUR AND PASTRY	153
Vladimír Ondáš, Kristína Vašinová, Viera Horváthová, Ernest Šturdík	LIPIDS CONTENT DECREASING FOR BETTER CORN STARCH UTILIZATION	154
Ludmila Papoušková, Václav Dvořáček, Jana Bradová	CHARACTERIZATION OF WAXY WHEAT VARIETIES STORED IN GENE BANK	159
Marta Tsirigotis- Wołoszczak, Izabela Pawlaczyk, Witold Pilecki, Leszek Czerchawski, Roman Gancarz	POLYPHENOLIC-POLYSACCHARIDE CONJUGATES WITH ANTICOAGULANT ACTIVITY FROM <i>AGRIMONIA EUPATORIA</i> (L.): CHEMICAL CHARACTERIZATION OF THE COMPOUNDS SEPARATED WITH ANION-EXCHANGE CHROMATOGRAPHY	164
Sławomir Pietrzyk, Paulina Pająk, Teresa Fortuna, Lesław Juszczak, Anna Ciemniewska	THE INFLUENCE OF DEGREE OF OXIDATION OF CORN STARCH ON ITS PHYSICOCHEMICAL PROPERTIES	169
Małgorzata Bączkowiec, Sławomir Pietrzyk, Dorota Gałkowska, Jacek Rożnowski, Ilona Tartanus, Karolina Szkabar	THERMODYNAMIC CHARACTERISTIC AND SUSCEPTIBILITY TO RETROGRADATION OF STARCHES MODIFIED BY INCORPORATION OF MINERAL ELEMENTS	173

Teresa Fortuna, Sławomir Pietrzyk, Izabela Przetaczek-Rożnowska, Jacek Rożnowski, Dorota Gałkowska, Katarzyna Janiec	EFFECT OF MINERAL ELEMENTS ON RHEOLOGICAL PARAMETERS OF STARCH	178
Paulina Pająk, Teresa Fortuna, Sławomir Pietrzyk	PHYSICOCHEMICAL AND RHEOLOGICAL PROPERTIES OF COMMERCIAL MODIFIED STARCHES	183
Justyna Rosicka-Kaczmarek, Ewa Nebesny, Izabella Kwaśniewska-Karolak, Tomasz Zięba, Artur Gryszkin	DIFFERENCES IN CHEMICAL COMPOSITION OF STARCH SURFACE GRANULES AND PHYSICOCHEMICAL PROPERTIES OF GLUCOSE HYDROLYSATES IN DEPENDENCE OF WHEAT KERNEL HARDNESS	186
Justyna Rosicka-Kaczmarek, Ewa Nebesny, Mariola Tkaczyk, Izabella Waśniewska-Karolak	CHANGES OF AMYLOSE-LIPID COMPLEX POLYMORPHIC FORM AND ITS INFLUENCE ON PHYSICO-CHEMICAL PROPERTIES OF ENZYMATIC HYDROLYSATES FROM WHEAT STARCH	187
Beata Schmidt, Tadeusz Szychaj	ADSORPTION OF METAL CATIONS FROM AQUEOUS SOLUTIONS ONTO STARCH GRAFTED COPOLYMERS	188
Petra Slavičková, Andriy Synytsya, Gordon K. Gomba, Miroslav Novák, Jana Čopíková	β-GLUCANS IN FOOD SUPPLEMENTS	191
Krzysztof Surówka	THE ROLE OF CARBOHYDRATES IN THE STRUCTURE FORMATION OF THE SOY PROTEIN CONCENTRATE DURING THE EXTRUSION PROCESS	193
Evžen Šárka, Lenka Cihelková, Jan Gojny, Zdeněk Bubník	APPLICATION OF WHEAT B-STARCH AS FILLER FOR ADHESIVES	196
Evžen Šárka, Jaroslav Koláček, Antonín Sikora, Kateřina Hrušková, Dana Prokopová, Richard Hrabal, Jaroslav Maixner, Zdeněk Bubník	EFFECT OF REACTION TIME ON THE ACETYLATION OF WHEAT B-STARCH AND CHARACTERIZATION OF THE PRODUCT	200
Evžen Šárka, Kateřina Hrušková, Andrea Hínková, Zdeněk Bubník	CASSAVA AS AN EXOTIC SOURCE OF STARCH	206
Tomáš Taubner, Andriy Synytsya, Jana Čopíková, Pavel Havelka	HYDROLYSIS AND DERIVATIZATION OF OXIDIZED CELLULOSE	209
Jozef Turjan, Milan Drábik, Peter Magdolen, Ján Kozák, Jozef Švec, Peter Capek	CHARAKTERIZATION OF CELLULOSE AND ITS DERIVATIVES BY THERMAL ANALYSIS AND FT-IR	213
Kateřina Vaculová, Marta Balounová, Renata Mikulíková, Karolína Benešová, Jaroslava Ehrenbergerová	EFFECT OF GENOTYPE ON VARIABILITY IN THE CONTENT OF NON-STARCH POLYSACCHARIDES IN BARLEY GRAIN	214
Mariusz Witczak, Lesław Juszcak, Jarosław Korus, Rafał Ziobro, Teresa Witczak	EFFECT OF MODIFIED STARCHES ON RHEOLOGICAL PROPERTIES OF GLUTEN-FREE DOUGH	218
Maciej Wojtczak, Aneta Antczak	THE CONTENT OF DEXTRAN IN RAW CANE SUGAR AND ITS DECREASING DURING THE REFINING PROCESS	222
Magdalena Zdanowicz, Tadeusz Szychaj	STARCH-BASED COMPOSITIONS AND FILMS MODIFIED WITH SEMIHYDROPHILIC ORGANOMONTMORILLONITES	226