

CONTENTS

PETROCHEMICALS AND ORGANIC TECHNOLOGY

SYNTHESIS AND STUDIES OF NEW ANTIOXIDANT ADDITIVES BASED ON PHLOROGLUCINOL

Alexanyan K., Yarullin N., Salmanov S.

EVALUATION OF PHYSICAL HARDENING OF BITUMINOUS BINDERS BY TESTING ON BENDING BEAM RHEOMETER

Jíša P., Matoušek L., Černý R.

SEPARATION OF TOLUENE FROM HYDROCARBON MIXTURES USING IONIC LIQUIDS [EMim][NTf2] AND [EMpy][NTf2]

Graczová E., Barabas S.

ECONOMIC OPTIMIZATION OF STEAM-CRACKER OPERATION

Karaba A., Zámstný P., Kelbichová V. , Herink T. , Lederer J.

EVALUATING MOLECULAR STRUCTURAL EFFECTS ON ACTIVITY AND SELECTIVITY OF CATALYSTS FOR ANTI-MARKOVNIKOV HYDRATION OF TERMINAL ALKYNES

Kindl M., Kačer P.

PREPARATION OF EGG-SHELL TYPE HYDROGENATION CATALYST CONTAINING NIKL AS THE ACTIVE COMPONENT

Šťávková G., Kolena J.

INDUCED OSCILLATORY BEHAVIOUR DURING 2-METHYLPROPENE (ISOBUTENE) HYDROGENATION IN A PACKED BED MICROREACTOR

Vajglova Z., Stavarek P., Jiricny V., Kolena J.

SIMULATION OF PROPAN-2-OL SEPARATION FROM AQUEOUS SOLUTIONS

Tkáč M., Jelínková I., Steltenpohl P.

OIL, GAS, COAL, FUEL, BIOFUELS

HIGH VOLUME BIOFUELS IN ČEPRO, INC. IN THE CONTEXT OF LEGISLATIVE CHANGES

Cimpl P., Hynek J.

STUDY OF THE EFFECT OF PIGMENTS WITH DIFFERENT ORIGINS ON THE FRICTIONAL PROPERTIES OF POLYUREA GREASES

Alexanyan K., Glicheva K., Kilyakova A.

MODELLING OF THE HYDRATES FORMATION IN NATURAL GAS PIPELINES

Kušnierik O.

ANALYSIS OF ENERGY EFFECTIVENESS OF C₃ FRACTION SPLITTING TECHNIQUES IMPLEMENTED IN SLOVNAFT REFINERY

Variny M., Blahušiak M., Mierka O., Kováč N.

IMPROVEMENTS IN THE EFFECTIVENESS OF ELECTRICITY AND HEAT CONSUMPTION IN AN INTEGRATED MILL PRODUCING PULP AND PAPER

Janošovský J., Variny M., Mierka O.

VERIFICATION OF COMBUSTION AIR TO FCC UNIT REGENERATOR MASS FLOW METERING

Variny M., Blahušiak M., Mierka O., Kováč N.

EVALUATION OF FUEL OILS STABILITY BY TOTAL SEDIMENTS

Vráblík A., Bringlerová N., Černý R.

HYDROGENATION OF PRODUCTS FROM THE FURFURAL ACETONE ALDOL CONDENSATION USING PD SUPPORTED OVER SBA-15 MATERIALS

Hidalgo J. M., Ramos R., Tišler Z., Kikhtyanin O., Kubička D.

HYDROTREATING OF MIDDLE PETROLEUM DISTILLATES AND RAPESEED OIL BLEND OVER NIMO CATALYST

Kočetková D., Blažek J., Fernández Y., Šimáček P., Staš M.

BIODIESEL FROM WASTE FAT GENERATED BY THE TANNING INDUSTRY

Kolomazník K., Pecha J., Šánek, L., Bařinová M.

COMPARATIVE EVALUATION OF RICE HUSKS AND SUGARCANE BAGASSE AS TROPICAL SOLID BIOFUELS

Duong V. M., Diem S., Hofbauer H., Hrbek J.

SUPERCRITICAL WATER GASIFICATION OF ALCOHOLS AS THE MODEL COMPOUNDS

Štefanko D., Rusková R., Jelemenský Ľ.

EFFECT OF PARTIAL PRESSURE OF HYDROGEN SULPHIDE ON HYDROTREATING OF MIDDLE PETROLEUM DISTILLATES AND RAPESEED OIL BLEND

Matějovský L., Suchánek R., Baroš P.

COMPARISON OF THE METHOD RCAT WITH STANDARD METHODS FOR SHORTTERM AND LONG-TERM AGEING AND USAGE OF INFRARED SPECTROMETRY FOR EVALUATION OF BITUMINOUS BINDERS

Matoušek L., Jíša P., Černý R.

EFFECT OF HYDROGEN TO OIL RATIO ON HYDROTREATING OF MIDDLE DISTILLATES AND RAPESEED OIL BLEND

Shumeiko B., Blažek J., Kočetková D.

USE FRACTIONS FROM FLUID CATALYTIC CRACKING FOR DIESEL FUEL PRODUCTION

Tomášek J., Culková M., Blažek J.

INORGANIC TECHNOLOGY

STUDY OF DIFFERENT ELECTRODE MATERIALS FOR CAPACITIVE DEIONISATION IN THE BATCH CELL AND THE PLUG FLOW CELL

Giurg A., Paidar M., Mališ J., Kimmer D., Vincent I.

MICROPOROUS LAYER – A CHALLENGE OR DEAD END RESEARCH DIRECTION IN A PEM WATER ELECTROLYSIS?

Bouzek K., Bystron T.

PHOTOELECTROCHEMICAL HYDROGEN PRODUCTION USING TiO₂ AND Fe₂O₃ PHOTOANODES

Krýsa J., Zlámál M., Kment S., Hubička Z.

PHOTOCATALYTIC DECOMPOSITION OF WASTEWATER FROM THE PRODUCTION OF EXPLOSIVES

Brom P., Brožek V., Březina V., Hlína M., Mastný L.

A CURIOUS CASE OF “INTERNAL MINERALISING” OF SOLID STATE REACTION IN PIGMENT SYNTHESIS

Gorodylova N., Šulcová P.

PROBLEMS DURING START-UP OF CALCIUM NITRATE PRODUCTION PLANT IN LOVOCHEMIE

Hubička M., Ulbricht P.

FACTORS HAVING EFFECT ON THE DOLOMITE DISSOLUTION IN DILUTE NITRIC ACID

Pultar M., Sedlářová I., Vídenský J.

INFLUENCE OF TEMPERATURE TREATMENT ON Al-, Zr/Al- PILLARED MONTMORILONITE ON ADSORPTION VALUES OF THE URANIUM COMPOUNDS

Doroshenko A.

IRON(VI): EFFECTIVE MEAN FOR THE ELIMINATION OF MICROPOLLUTANTS FROM WASTEWATERS

Híveš J., Kubiňáková M., Mackuľák T., Gál M.

EXTRUSION SAMPLES OF HYDRATED ALUMINUM OXIDE

Bílková D., Dvořák B., Gonsiorová O.

THE INFLUENCE OF PREPARATION CONDITIONS ON THE PROPERTIES OF YFeO₃ PIGMENTS

Burkovičová A., Dohnalová Ž., Šulcová P.

THE EFFECT OF MINERALIZERS ON SYNTHESIS OF Er₂Ce₂O₇

Hablovičová B., Šulcová P.

OPTICAL AND THERMAL CHARACTERISTICS OF Ln-DOPED LiZr₂(PO₄)₃

Kosinová V., Gorodylova N., Bělina P., Šulcová P.

MALAYAITE WITH COBALT PREPARED USING MECHANICAL ACTIVATION

Luxová J., Šinkovská M., Šulcová P.

THE EFFECT OF PREPARATION METHOD ON COLOUR PROPERTIES OF TERBIUM DOPED CASSITERITE PIGMENTS

Karolová L., Luxová J., Dohnalová Ž.

SYNTHESIS AND CHARACTERIZATION OF MIXED OXIDE PIGMENT Bi_{1.5}Zn_{0.5}CeNbO₇

Těšitelová K., Šulcová P., Šnajdarová M.

MATERIAL ENGINEERING

BLACK CHROMIA PLATING FOR THE SOLAR RADIATION ABSORBERS

Brožek V., Březina V., Brom P., Kubatík T. F., Vilémová M., Mastný L.

CORROSION BEHAVIOR OF PLASMA COATINGS CuAl10 AND CuAl50 ON MAGNESIUM ALLOY AZ 91

Kubatík F.T., Stoulil H., Stehlíková K., Slepíčka P., Janata M.

1-D TiO₂ NANOSTRUCTURES FOR PHOTOELECTROCHEMICAL APPLICATIONS

Pausova S., Kment S., Krýsa J.

ON THE IMPORTANCE OF ADVANCED IMAGE PROCESSING METHODS IN MATERIAL RESEARCH

Veselý M., Čapek P., Diblíková P.

TRANSPORT AND MAGNETIC PROPERTIES OF Fe_xBi₂Te₃ Single Crystals

Čermák P., Drašar Č., Prokleška J., Krejčová A.

UTILIZATION OF HIGH PERFORMANCE LIQUID CHROMATOGRAPHY FOR STUDY OF CHEMICAL AND MOLECULAR STRUCTURE OF SELECTED PAINT MATERIALS

Kadlecová M., Podzimek Š.

QCM GAS SENSOR WITH SELF-ASSEMBLED NANOPARTICLES OF SNO₂

Seidl J., Jirešová J., Hofmann J., Otta J.

CO₂ CAPTURE AND STORAGE

CIRCULATING FLUIDIZED BED CALCINER MODEL FOR A CA-LOOPING SYSTEM

Vodička M., Hrdlička J., Opatřil J., Skopec P., Pilař L.

MODEL DESIGN OF OPERATIONAL PARAMETERS OF A PILOT SCALE CARBONATOR

Opatřil J., Hrdlička J., Vodička M., Skopec P., Pilař L., Staf M.

MODELING OF A CARBONATION-CALCINATION LOOP TO CAPTURE CO₂ FROM FLUE GASES

Morte M.

DESIGN OF EXPERIMENTAL CALCIUM LOOPING UNITS

Štefanica J., Smutná J., Hájek P.

EFFECT OF CONFIGURATIONS OF ACID GAS REMOVAL AND CO₂ CAPTURE BY PHYSICAL SOLVENT FOR IGCC CCS POWER PLANT

Novotný V., Vitvarová M.

CASE STUDY OF TRANSPORT OPTIONS FOR CO₂ FROM IGCC COAL POWER PLANT IN THE CZECH REPUBLIC FOR STORAGE

Veselý L., Skaugen G., Vitvarova M., Roussanaly S., Novotny V.

ADSORPTION METHOD FOR CO₂ CAPTURE: EXPERIMENTAL RESULTS AND TECHNOECONOMIC ANALYSIS

Smutná J., Štefanica J., Vitvarová M., Pilař L., Ciahotný K.

POLYMERS, COMPOSITES

SELF-CROSSLINKING LATEXES WITH IMPROVED FLAME STABILITY

Machotová J., Zárybnická L., Večeřa M., Puková K.

OXOVANADIUM (IV) 2-ETHYLHEXANOATE AS A DRYING AGENT FOR SOLVENTBORNE ALKYD PAINTS

Preininger O., Honzíček J., Vinklárek J., Kalenda P.

BIODEGRADABLE POLYMERS BASED ON SELECTED POLYOLEFINS AND POTATO STARCH

Puková K., Večeřa M., Prokůpek L., Linhart K.

IMPACT OF NITROGEN OXIDES ON THE CHANGES OF SELECTED PROPERTIES OF PULP

Hájek M., Milichovský M., Filipi M., Mikala O.

THE INFLUENCE OF MICROBICIDAL SUBSTANCES ON THE PROPERTIES OF CELLULOSIC AND LIGNOCELLULOSIC MATERIALS

Mikala O., Gojný J., Milichovský M., Hájek M.

COATING BINDERS BASED ON STRUCTURED SELF-CROSSLINKING LATEXES

Rückerová A., Machotová J., Kalendová A., Puková K.

ELEMENTAL CHLORINE-FREE BLEACHING OF SODA RAPESEED PULP

Potůček F., Řihová M.

THE STUDY OF CATALYC ACTIVITY OF IRON BISPIDON COMPLEX IN AIR DRYING ALKYD

Křižan M., Erben M., Kalenda P., Honzíček J., Vinklárek J.

WOOD ASH AS AN ADSORBENT FOR ACID GASES SEPARATION

Machač P., Smutná J.

DEVELOPMENT OF A PILOT PLANT FOR REDUCTION HG EMISSION FROM LARGE POWER PLANT

Pilař L., Veselý V., Vlček Z., Zseliga Z.

USING OF SOIL MULTISPECIES TEST FOR ASSESSMENT OF SOLID WASTES

Kobetičová K., Pejčochová V.

VERIFICATION OF REVERSE OSMOSIS FOR PRIMARY COOLANT TREATMENT IN TEMELÍN NUCLEAR POWER PLANT

Bártová Š., Kůs P., Skala M., Vonková K., Zach V., Kopa R.

USE OF UV RADIATION FOR HYGIENIZATION OF CLARIFIED WATER IN ENERGY TECHNOLOGY

Kůs P., Bártová Š., Šmejdivá V.

COMPARISON OF OXIDATION AND REDUCTION METHODS APPLICABLE FOR REMOVAL OF RECALCITRANT HALOGENATED ORGANIC COMPOUNDS FROM AQUEOUS EFFLUENTS

Weidlich T., Lacina P., Švrček J.

ALTERNATIVE BROMINATION METHOD – UTILIZATION OF WASTEWATERS FROM THE PRODUCTION OF FINE CHEMICALS

Šimek M., Weidlich T., Vyňuchal J.

TRETEMENT OF PRIMARY COOLANT IN NPPS – OPERATION COST OF EVAPORATOR AND REVERSE OSMSOSIS SYSTEM

Bártová Š., Kůs P., Skala M., Vonková K., Zach V., Kopa R.

OPTIMIZING OF PHOSPHORUS DOSAGE IN AUTOTROPHIC DENITRIFICATION OF THIOBACILLUS DENITRIFICANS IN BATCH REACTORS

Blažková Z., Sleňhová E., Trousil V., Muselíková J., Palarčík J., Slezák M., Cakl J.

PREPARATION OF MAGNESIUM SILICIDE FROM RECYCLED MATERIALS FOR ENERGY STORAGE

Bumba J., Dytrych P., Solcova O., Kostejn M., Fajgar R., Maleterova Y., Kastanek F.

Ti-MODIFIED CLAY COMPOSITE FOR Cr (VI) REMOVAL FROM POLLUTED WATER

Doroshenko A., Gorodylova N., Sulcova P.

DESALINATION OF STARCH ACID HYDROLYSATE USING ELECTRODIALYSIS AND ACID RECYCLATION

Halama R., Pantůčková E.

SORPTION OF COPPER FROM DECONTAMINATION SOLUTIONS USING SELECTIVE SORBENTS

Chlupáčová M., Kůs P.

LANDFILL LEACHATE TREATMENT TECHNOLOGY WITH ELECTROMEMBRANE UNIT

Maršálek J., Bobák M., Savchuk N.

UTILIZATION OF SOOT CHEZACARB® FOR COMBUSTION GAS CLEANING

Posledni W., Lederer J.

PHOTOCATALYTIC OXIDATION OF NON-STEROIDAL ANTI-INFLAMMATORY DRUGS

Trousil V., Blažková Z., Muselíková J., Sleňhová E., Palarčík J., Machalický O., Cakl J.

BIOTECHNOLOGY AND BIOREFINARY

PLANET EARTH – GLOBAL BATCH BIOREACTOR

Hanika J., Solcova O., Kastanek P.

PRODUCTION OF HYDROLYTIC ENZYMES AND IMPROVEMENT OF ENZYME ACTIVITY AND STABILITY USING ENCAPSULATION TECHNIQUES

Matoušková P., Hazuchová E., Bokrová J., Benešová P., Márová I.

BIOREACTOR WITH INTEGRATED IMMERSSED SILICONE RUBBER MEMBRANE MODULE FOR EXTRACTIVE BIOTRANSFORMATION

Mihaľ M., Červeňanský I., Markoš J.

BIOPRODUCTION OF 2-PHENYLETHANOL IN HYBRID SYSTEM CONSISTING OF BIOREACTOR, MEMBRANE MODULE AND ADSORPTION COLUMN

Červeňanský I., Mihaľ M., Markoš J.

HYBRID SYSTEM FOR BIOCATALYTIC PRODUCTION OF NATURAL AROMAS – MODELLING AND DESIGN

Červeňanský I., Mihaľ M., Markoš J.

USAGE OF WASTE MATERIALS AS THE POTENTIAL SUBSTRATE FOR PRODUCTION OF MICROBIAL BIOPOLYMERS

Benešová P., Kučera D., Obruča S., Matoušková P., Márová I.

COMPARISON OF FLOW CYTOMETRY AND RAMAN SPECTROSCOPY AS METHODS FOR RAPID DETREMINATION OF INTRACELLULAR CONTENT OF POLYHYDROXYALKANOATES IN BACTERIAL CELLS

Kučera D., Samek O., Müllerová L., Benešová P., Obruča S.

DIVERSITY CHANGES OF BACTERIAL POPULATIONS IN SOIL CONTAMINATED BY CHLORINATED PHENOLS, DIOXINS AND FURANS

López Echarte E., Matějů V., Kycľt R., Musilová L., Demnerová K., Lovecká P., Macek T., Uhlík O.

PRODUCTION OF PIGMENTS BY THE FUNGUS MONASCUS PURPUREUS

Patrovský M., Branská B., Patáková P.

LIPID EXTRACTION FROM ALGAE TRACHYDISCUS MINUTUS

Rouskova M., Kohoutkova J., Bicova M., Solcova O., Kastanek P., Hanika J.

WAXES AND LIPIDS EXTRACTION FROM MISCANTHUS GIGANTEUS STEMS

Rouskova M., Solcova O., Kastanek P., Barnet M., Svatek A., Stranska M., Hanika J.

PHARMACEUTICAL TECHNOLOGY

EFFECT OF LUBRICANTS ON DISINTEGRATION STABILITY OF PARACETAMOL-CAFFEINEPHENYLEPHRINE TABLETS

Zámstný P., Thimová D., Kreibichová B., Leitner J.

PLASTICIZING EFFECT OF DRUG IN HOT-MELT EXTRUSION PROCESS

Patera J., Záboj M., Kuta A.

DISPLACEMENT WASHING OF SODA PULP COOKED FROM RAPESEED STRAW WITH AND WITHOUT SILIQUE VALVES

Potůček F., Hájková K.

USE OF 3D QSAR PHARMACOPHORE MODELLING IN THE RESEARCH OF INFLUENZA

Koščová P., Roy S., Provazník I.

FRUSTRATED LEWIS PAIRS-ASSISTED REDUCTION OF CARBONYL COMPOUNDS

Marek A., Pedersen M. H. F.

SECURE MANAGEMENT PROCESSES, ACCIDENT PREVENTION, ETC.

LAW ON PREVENTION OF MAJOR ACCIDENTS VERSUS REAL PREVENTION OF MAJOR ACCIDENTS

Ferjenčík M., Mašín J.

MATHEMATICAL MODELLING AND STABILITY INVESTIGATION OF MULTIPLE STEADY STATES IN CHEMICAL REACTORS IN THE INTEREST OF AUTOMATED PROCESS SAFETY ANALYSIS TOOL

Danko M., Janošovský J., Labovský J., Jelemenský Ľ.

INVESTIGATION OF NONLINEAR BEHAVIOUR OF CHEMICAL REACTORS USING ASPEN HYSYS AS A USEFUL TOOL FOR MODEL-BASED HAZARD IDENTIFICATION

Janošovský J., Danko M., Labovský J., Jelemenský Ľ.

USING THE ACCELERATING RATE CALORIMETRY FOR DETERMINATION OF ENERGETIC MATERIALS THERMAL HAZARDS

Mašín J., Šelešovský J., Ferjenčík M.

NANOMATERIALS – A REVIEW ON LIFE CYCLE ASSESSMENT (LCA) AND ECOLOGICAL RISK ANALYSIS

Kobetičová K.

ADDITIONAL ABSTRACT

NATIONAL ACTION PLAN FOR RENEWABLES – SECTION TRANSPORT

Pospíšil M., Souček I., Šimáček P., Kittel H.