



PLENARY LECTURES

Process intensification

Recent Advances in Energy-Based Intensification of Chemical Reactions: Can We Control Molecules Better?

PL1

Andrzej Stankiewicz

Entrepreneurship and innovation

PL2

Roger-Marc Nicoud

Energy and sustainability

PL3

Wolfgang Arlt

Biopolymer-mediated intracellular transport for drug delivery and human cell cryopreservation

PL4

Nigel Slater

Forest based biorefineries: Role of catalysis and reaction engineering

PL5

Dmitry Yu. Murzin

New Models in Engineering Education

ST

Sebastião Feye de Azevedo

KEYNOTE PRESENTATIONS

The two alternative mechanisms of catalytic carbon formation – relevance of kinetic linearity, surface duality and nano-geometry

KN1-CM

L. Sousa Lobo

Mechanism of Catalytic Carbon gasification: Chemical Engineering at Nano Scale. The case of CO₂ with Fe, Cu, Mg, V and their Alloys

KN1-CM part II

L. Sousa Lobo, S.A.C. Carabineiro

Molecular Simulation as a Prediction and Design Tool in Chemical Engineering

KN2-MS

M. Jorge

Towards zero energy buildings: photovoltaic and photoelectrochemical devices

KN3-EN

A. Mendes

Polymeric Biomaterials: Recent Developments

KN4-BE

M.H. Gil, P. Alves, P. Coimbra, P. Ferreira

Bioengineering strategies for *ex-vivo* cultivation and purification of stem cells

KN5-BE

J.M.S. Cabral

The Emergence of Commercial Bio-Products – Development Program at Group Portucel

KN6-BR&I

A. Gaspar, P. Sousa, J. Ataíde

ORAL SESSION - BIOLOGICAL ENGINEERING

Membrane reactors in process intensification of mannosylerythritol lipids production from sugars

O-BE1

M.V. Santos, N.T. Faria, C. Fonseca, F.C. Ferreira

Effect of Biopolymer Purification Process on the Properties of Exopolysaccharides Membranes for Pervaporation

O-BE2

I.T. Meireles, C. Portugal, V.D. Alves, J.G. Crespo, I.M. Coelho

Packed bed enzyme microreactor: application in sucrose hydrolysis as proof-of-concept

O-BE3

P. Fernandes, F. Carvalho

Development of Biofiller to Permeable Reactive Barriers for Treatment of Groundwater Polluted with Polycyclic Aromatic Hydrocarbons

O-BE4

L. Ferreira, E. Rosales, M.A. Sanromán, M. Pazos

Development of New Disinfection Solutions Including the Use of Chemical Combinations

O-BE5

A. Meireles, R. Fulgêncio, I. Machado, F. Mergulhão, L. Melo, M. Simões

Synthesis and Characterization of a Graphene-based Composite Photocatalyst Applied to the Photoinactivation of Microorganisms

O-BE6

P. Magalhães, J. Ângelo, V.M. Sousa, O.C. Nunes, L. Andrade, A. Mendes,

Stability evaluation of polymer-liposome complexes for drug delivery systems prepared with bacterial lipids

O-BE7

P. Alves, A.A. Hugo, E.E. Tymczyszyn, F. Szymanowski, P.F. Pérez, J.F.J. Coelho, P.N. Simões, A. Gómez-Zavaglia

Sustainable biosurfactants: Yeast conversion of lignocellulosic biomass into mannosylerythritol lipids

O-BE8

N.T. Faria, M.V. Santos, C. Ferreira, S. Marques, F.C. Ferreira, C. Fonseca

Phenylboronic Acid Chromatography: Validation and Scale-up of a Multi-modal Process for the Purification of Monoclonal Antibodies

O-BE9

S.A.S.L. Rosa, R. dos Santos, M. R. Aires-Barros, A. Tover, A.M. Azevedo

Scalable expansion of neural stem cells supported in electrospun nanofiber scaffolds

O-BE10

M.C.A. Sousa, C.A.V. Rodrigues, J.M.S. Cabral, F.C. Ferreira

Enzyme Superactivity Induced by Ionic Liquids Aggregates as the Key for Boosting the Reactions Yield

O-BE11

P. de Morais, L.D.F. Santos, F.A. e Silva, S.P.M. Ventura

Detection and Discrimination of Microorganisms Using Locked Nucleic Acid - Fluorescence *In Situ* Hybridization (LNA-FISH)

O-BE12

A.S. Azevedo, B. Pereira, C. Almeida, L. Melo, J. Wengel, N.F. Azevedo

Yeasts identification in microfluidic devices through peptide nucleic acid fluorescence *in situ* hybridization (PNA-FISH)

O-BE13

D. Moreira, L. Cerqueira, J. Miranda., N.F. Azevedo

Extraction of Bovine Serum Albumin (BSA) by Aqueous Biphasic Systems (ABS) composed of Good's buffer ionic liquids

O-BE14

M.V. Qental, M. Taha, F.A., Silva, S.P.M. Ventura, M.G. Freire, J.A.P. Coutinho

Integral production and concentration of surfactin from *Bacillus* sp ITP-001 by semi-batch foam fractionation

O-BE15

M.T.S. da Silva, C.M.F. Soares, A.S. Lima, C.C. Santana

Bioethanol Production from Rockrose Pretreated by Steam Explosion

O-BE16

A.M.R.B.Xavier, M.Ferro, A.F.C Paulino, J. Gravitis, D.V. Evtuguin, M.C. Fernandes

Spray-drying of *Suillus luteus* and *Cropinopsis atramentaria* mushroom alcoholic extracts and its synergistic antioxidant effect

O-BE17

A. Ribeiro, G. Ruphuy, L. Barros, J.C. Lopes, M.M. Dias, I.C.F.R. Ferreira, M.F. Barreiro

ORAL SESSION - CHEMICAL ENGINEERING FUNDAMENTALS AND PRACTICE

Gallium-Substituted and Promoted Hydrotalcites for CO₂ Capture at High Temperatures: Sorption Equilibrium and Kinetics

O-FP1

C.V. Miguel, R. Trujillano, V. Rives, M.A. Vicente, A.F.P. Ferreira, A.E. Rodrigues, A. Mendes, L.M. Madeira

Adsorption Equilibria of CO₂ and N₂ on MIL-53(Al): Experimental Measurements and Adsorption Potential Theory Analysis

O-FP2

B.C.R. Camacho, R.P.P.L. Ribeiro, I.A.A.C. Esteves, J.P.B. Mota

Carbon dioxide removal from anaesthetic gas circuits using carbonic anhydrase and ionic liquid membranes

O-FP3

C.F. Martins, L. A. Neves, C.A.M. Afonso, I.M. Coelho, J.G. Crespo

Thermodynamic Analysis of Glycerol Steam Reforming for Hydrogen Production With in Situ Hydrogen and Carbon Dioxide Separation

O-FP4

J.M. Silva, M.A. Soria, L.M. Madeira

Implementation of a Simulated Moving Bed Reactor process for the synthesis of acetals: The Glycerol Ethyl Acetal case study

O-FP5

R. Faria, C. Pereira, V. Silva, J. Loureiro, A.E. Rodrigues

Purification of the Polyphenolic Fraction from *E. globulus* Bark Extract by Membrane and Adsorption Processes

O-FP6

I. Mota, P.C. Pinto, C. Pereira, J. Loureiro, A.E. Rodrigues

Optimization of the Adsorption Process for the Analytical and Preparative Separation of Nadolol Stereoisomers

O-FP7

A.E. Ribeiro, A.E. Rodrigues, L.S. Pais

Hydrogenation of Nitrobenzene over Pd/Al₂O₃ catalyst – Mechanism and effect of the main operating conditions

O-FP8

C. Sá Couto, L.M. Madeira, C.P. Nunes, P. Araújo

Heterogeneous Photocatalytic Synthesis of p-Anisaldehyde from p-Methoxytoluene in a Small Batch Reactor under UV-LED Irradiation

O-FP9

D. Heggo, H. Mohamed, S. Ookawara, Y. Matsushita

An Analysis of Ceramic Catalysts Comprised by Iron and Cobalt Oxides for the Heterogeneous Fenton's Reaction

O-FP10

A.F. Rossi, R.C. Martins, R.M. Quinta-Ferreira

Mass-transfer in narrow rectangular channels with mesh-type spacers under pulsatile flow in laminar regime

O-FP11

C. Rodrigues, V. Semião, V. Geraldes

Electrochemical Impedance Spectroscopy Measurements During Chlorine-Evolution Reaction

O-FP12

J.F. Silva, A.C. Dias, P. Araújo, C.M.A. Brett, A. Mendes

On the selection of the working conditions to precipitate Polystyrene wastes from Limonene solutions

O-FP13

C. Gutiérrez, J.F. Rodríguez, I. Gracia, A. de Lucas, M.T. García

Systematic Parameter Estimation for Equilibria Data With Thermodynamic Consistency Metrics and Phase Stability

O-FP14

J.F.O. Granjo, N.M.C. Oliveira, J.A.P. Coutinho

ORAL SESSION - CHEMICALS AND MATERIALS

Effect of Finishing Methods on Fragrance Release of Functional Wool/Polyester Fabrics

O-CM1

I.M. Martins, M.F. Barreiro, A.E. Rodrigues

Correlating Adsorption and Flocculation Kinetics of Polyelectrolytes with Different Architectures

O-CM2

M. G. Rasteiro, I. Pinheiro, H. Ahmadloo, D. Hunkeler, F.A.P. Garcia, P. Ferreira and C. Wandrey

Effect of an Additive on the Permanent Memory Effect of Polymer Dispersed Liquid Crystal Films

O-CM3

M.C. Silva, J. Sotomayor, J. Figueirinhas

Photopolymerized Polymethacrylate Resin for Thiocyanate/Phenol Separation

O-CM4

A.M. López, A. Villa-Garcia, M. Rendueles, M. Díaz

Preparation of hydroxyapatite nanodispersions in the presence of chitosan

O-CM5

G. Rупhuy, A. Saralegi, J.C.Lopes, M.M. Dias, M.F. Barreiro

The Alkalinity in Crosslinking of Hyaluronic Acid with Divinyl Sulphone Improves Properties of the Microparticles as Biomaterial

O-CM6

M.H.A. Santana, A.A Shimojo

Production of RAFT Imprinted Smart Hydrogel Particles in a Continuous Flow Micro-reactor

O-CM7

C. Machado, A. Freitas, P. Kadhivel, R.C.S. Dias, M.R.P.F.N. Costa

Continuous Production of high Quality Nanoparticles of Metal-Organic Frameworks

O-CM8

M. Costa, C.M. Fonte, P. Horcajada, T. Devic, J. Faria, M.M. Dias, J.C.Lopes

Fatty Acid Derivatives: a New Approach to Develop Waterborne Paints With Low VOC emissions

O-CM9

J.V. Barbosa , A. Mendes, F.D. Magalhães , M.M.S.M. Bastos

Rheological Behavior of Nonionic Surfactant-based Gels

O-CM10

G.A.S. Nóbrega, D.A.A. Gomes, A.A. Dantas Neto, E.L. Barros Neto, T.N.C. Dantas

ORAL SESSION - EDUCATION AND SOCIETY

Shaking up final oral evaluations: Poster-Karaoke in Chemical Engineering Laboratories

O-ES1

A.B. Timmons, F.A. Da Silva

Evaluating the Effectiveness of Teaching Core Chemical Engineering Knowledge and Competencies in Higher Education – iTeach project

O-ES2

J. Glassey, N. Kockman, V. Meshko, M. Polakovic, E. Schaer, L.M. Madeira

ORAL SESSION - ENERGY

Production of hydrocracked lubricant base oils by the combination of units already existent in Galp Energia refineries

O-EN1

P. Oliveira, A.R. Oliveira

A One-Dimensional and Two-Phase Flow Model of a Proton Exchange Membrane (PEM) Fuel Cell

O-EN2

R.B. Ferreira, D.S. Falcão, V.B. Oliveira, A.M.F.R. Pinto

Preparation and optimization of transparent cuprous oxide photocathodes for allowing efficient solar water splitting

O-EN3

P. Dias, M. Mayer, J. Azevedo, L. Andrade, A. Mendes, M. Graetzel, S.D. Tilley

Temperature Influence in the Recombination Reaction of Dye-Sensitized Solar Cells

O-EN4

J. Maçaira, I. Mesquita, L. Andrade, A. Mendes

Power Generation by Reverse Electrodialysis: Directions for Future Development

O-EN5

S. Pawlowski, V. Geraldes, J.P. Crespo, S. Velizarov

Production of renewable synthetic fuels from electricity using the ELECTROFUEL® concept

O-EN6

J. Gomes, L. Guerra, J. Puna J. Rodrigues

Dairy industry effluent treatment and valorisation in a two chambered microbial fuel cell

O-EN7

A. Faria, L. Gonçalves, J.M. Peixoto, L. Peixoto, A.G. Brito, G. Martins

Co-digestion of *Sargassum* sp. with glycerol and waste frying oil: optimization of the biomethane production using a design of experiments

O-EN8

J.V. Oliveira, M.M. Alves, J.C. Costa

Anaerobic Studies of Ethylic and Methylic Biodiesel and Impact on Benzene Biodegradation.

O-EN9

F.S. Portugal, A.S. Danko, J.M. Dias

Bioethanol Production From Sugar-rich Agro-Industrial Wastes

O-EN10

A. Constantino, B. Rodrigues, S. Raposo, M.E. Lima-Costa

Glucose Fermentation to Hydrogen by Thermophilic Mixed Culture

O-EN11

R.P. Ratti, T.P. Delforno, D.Y. Okada, M.B.A. Varesche

ORAL SESSION - MULTI-SCALE MODELING AND SIMULATION

Modelling the Hydrodynamics of Cooling Channels Inside Shell-Type Power Transformers with CFD

O-MS1

H.M.R. Campelo, R.T. Oliveira, C.M. Fonte, X.M. Lopez-Fernandez, M.M. Dias, J.C. Lopes

Dynamic Modelling Framework with Automatic Differentiation Index Reduction

O-MS2

J.R. Leal, L.O. Santos, A. Romanenko

Stochastic modelling of the thermal and catalytic degradation of polyethylene

O-MS3

N. Trindade, A. Lemos, A. Coelho, I.M. Fonseca, M.A.N.D.A. Lemos, F. Lemos

Kinetic Modelling for Enzymatic Hydrolysis of Pre-treated Sugarcane Straw

O-MS4

J.D. Angarita, A.R. Secchi, E.C. Biscaia Jr., A.J.G. Cruz, R.B.A. Souza

MOF Based PSA Processes For Gas Separation

O-MS5

A.M. Ribeiro, A.F.P. Ferreira, A.E. Rodrigues

Nanoscale Confinement of B-DNA into Hydrophobic Pores

O-MS6

F.J.A.L. Cruz, J.J. de Pablo, J.P.B. Mota

Cyclone Optimization Using Particle Agglomeration

O-MS7

A. Alves, J. Paiva, R. Salcedo

Study of Mass Transfer Limitations in a Multiphase Stirred Tank Reactor for the Screening of Shaped Catalysts

O-MS8

C.P. Fonte, M. Braga, R. Vasile, L. Brunet-Errard, I. Pitault, S. Simoëns, C. De Bellefon, V. Santos-Moreau, J.C. Lopes

Synergistic effect of mixed solvents in extractive distillation to produce fuel alcohol

O-MS9

I.D. Gil, L.C. García, G. Rodríguez

Monitoring the Process Correlated Structure Using Partial Correlation Information

O-MS10

T. Rato, M. Reis

Evaluation of swirl strength and centrifugal acceleration on supersonic swirling separators

O-MS11

B.M. Vaziri

ORAL SESSION - SUSTAINABILITY AND ENVIRONMENT

Recovery of Cr(III) from tannery wastewaters using ion-exchange and nanofiltration

O-SE1

L. Gando-Ferreira, J.C. Marques, M.J. Quina

Sorption isotherms of recycled cellulosic fibres modified by ultra high pressure pre-treatment

O-SE2

A.M. Salgueiro, D.V. Evtuguin, J.A. Saraiva, F. Almeida

Analytical Performance of Spectral Deconvolution Approach for the Analysis of Diterpene Esters in Coffee Using HPLC-DAD

O-SE3

G.L. Erny, M. Moeenfarid, A. Alves

Determination of the VOC removal capacity of a semi-continuous two-phase partitioning bioreactor

O-SE4

M. Guillerm, C. Picard, A. Couvert, A. Amrane, E. Dumont, E. Norrant, N. Lesage, F. Rouxel

Comparing Aerobic Granular Sludge and Flocculent Sequencing Batch Reactor Technologies for Textile Wastewater Treatment

O-SE5

N.D. Lourenço, R.D.G. Franca, M.A. Moreira, H.M. Pinheiro

Effect of Sequencing Batch Cycle Strategy on the Treatment of a Simulated Textile Wastewater with Aerobic Granular Sludge

O-SE6

A.M.T. Mata, H.M. Pinheiro, N.D. Lourenço

Evaluation of *Moringa oleifera* Seed Flour and Clays as Clarifying Agents of Eutrophic Lake Water

O-SE7

A.F.S. Santos, M. Rodrigues, J. Cardoso, A.C. Rodrigues, J.A.C. Teixeira, P.M.G. Paiva, L.C.B.B. Coelho, A.G. Brito, G. Martins

Microalgal Harvesting through Autoflocculation and Bioflocculation: an Overview

O-SE8

N.F.P. Silva, F.G. Martins, M.C.M. Alvim-Ferraz, V.J.P. Vilar, J.C.M. Pires

Life Cycle Assessment of Microalga Production using Domestic Wastewater and synthetic culture

O-SE9

M.S. Gonçalves, E. Castanheira, S. Graça, B. Ribeiro, L. Gouveia, A.C. Oliveira, F. Freire, C.T. Matos

Catalytic Studies for the Abatement of Emerging Contaminants by Ozonation

O-SE10

R.C. Martins, M. Cardoso, R.F. Dantas, C. Sans, S. Esplugas, R.M. Quinta-Ferreira

Orange II Dye Degradation by Heterogeneous Fenton Process in Continuous Stirred Tank Reactor

O-SE11

S. Queirós, C.S.D. Rodrigues, F.J. Maldonado-Hódar, L.M. Madeira

Industrial Waste as Catalysts in electro-Fenton-like treatment: Activity, Stability and Reusability

O-SE12

E. Alfaya, E. Rosales, M. Pazos, M.A. Sanromán

Bromate Reduction Under Hydrogen Using Monometallic Catalysts on Different Supports

O-SE13

J. Restivo, O.S.G.P. Soares, J.J.M. Órfão, M.F.R. Pereira

A Biorefinery Based on Spent Coffee Grounds: a Waste to Chemicals and Energy Solution

O-SE14

N. Caetano, V. Silva, A. Martins, T. Mata

The Role of pH and Ionic Strength in the Sorption of Vegetable Oil from Water by Cork Granules

O-SE15

A.M.A. Pintor, R.S. Souza, V.J.P. Vilar, C.M.S. Botelho, R.A.R. Boaventura

Water vapour adsorption by a coffee-based microporous carbon: effect on CO₂ capture

O-SE16

M.G. Plaza, A.S. González, F. Rubiera, C. Pevida

An overview of eggshell waste potential for sorptive and catalytic processes

O-SE17

M. Soares, M. Quina, R.M. Quinta-Ferreira

POSTER SESSION - BIOLOGICAL ENGINEERING

Comparative study of *Candida guilliermondii* and *Pichia stipitis* fermentation on olive pruning dilute acid hemicellulosic hydrolysate

P-BE1

J.G. Puentes, B.G. Fonseca, S. Mateo, I.C. Roberto, A.J. Moya, S. Sánchez

Bioethanol Production: Adaptation of *Scheffersomyces stipitis* to Hardwood Spent Sulfite Liquor

P-BE2

C.J.R. Frazão, S.R. Pereira, V. Sánchez i Nogué, L.S. Serafim, M.F. Gorwa-Grauslund, A.M.R.B. Xavier

Characterisation of a Bacterium Isolated From a Minimally Processed Vegetables Plant Including its Antimicrobial Resistance

P-BE3

A. Meireles, R. Fulgêncio, I. Machado, F. Mergulhão, L. Melo, M. Simões

Bioflocculation Assessment of Mixed Cultures of Selected Microalgae and Cyanobacteria

P-BE4

A.L. Gonçalves, J.A. Loureiro, J.C.M. Pires, M. Simões

Immobilization of whole cells of *Yarrowia lipolytica* for citric acid production

P-BE5

A. Gonçalves, A. Braga, P. Ferreira, I. Belo

Development of An Image Analysis Methodology For Animal Cell Cultures Characterization

P-BE6

A.L. Amaral, D.P. Mesquita, M. Xavier, L. Rodrigues, L. Kluskens, E.C. Ferreira

Effect of Size and Oxidation in Biocompatibility of Graphene-based Materials

P-BE8

A. Pinto, G. Carolina, D. Sousa, A. Moreira, I. Gonçalves, F. Magalhães

Biorecovery of Heavy Metals Using Vermiculite for Sediment and Water Protection

P-BE9

C. Ferronato, B. Silva, F. Costa, L.V. Antisari, T. Tavares

Sucrose hydrolysis by immobilized invertase in Duolite A-568 employing a packed bed reactor

P-BE10

B.V. Cabral, L.N.S.S. Falleiros, T.S. Carmo, L.D.S. Marquez, M.M. Resende, V.L. Cardoso, E.J. Ribeiro

Use of Hardwood Sulphite Spent Liquor For Polyhydroxyalkanoate Production By Mixed Microbial Culture

P-BE11

D. Queirós, A. Fonseca, C. Rangel, S. Rossetti, L.S. Serafim

Fermentation in Two Operation Scales of Enzymatic Hydrolysates of Industrial Lignocellulosic Materials for the Production of Bioethanol

P-BE12

C.V.T. Mendes, M.G.V.S. Carvalho, J.M.S. Rocha

Influence of Different Photoperiods on Growth of the green microalgae *Chromochloris zofingiensis*

P-BE13

C. Silva, N. Caetano, A. Mendes

Study of the encapsulation efficiency and release profiles of alginate microspheres containing α -tocopherol

P-BE14

D. Vieira, J.S. Amaral, M.F. Barreiro

Game *tabulae* at the Convento de Cristo in Tomar – study of biological colonization

P-BE15

D.M.R. Mateus, S. da Ponte, J.P.F. Coroado, F.J.F.T. Rocha

Study of Ni (II) and Diethylketone Removal from Aqueous Solutions Using a Biofilm of *Streptococcus equisimilis* Supported on Vermiculite

P-BE16

F. Costa, B. Silva, C. Quintelas, T. Tavares

Effects of the Temperature and Broth Composition on Ethanol Production from Sugarcane Bagasse and Crude Enzymatic Extract

P-BE17

J. Fischer, V. dos S. Lopes, E.F.Q. Santos, E.J. Ribeiro, U.C. Filho, V.L. Cardoso, C.M.A. Galvão, J.C. Teodoro

Ethanol production via crude enzymatic hydrolysis of sweet sorghum bagasse treated with a pressurized batch hot water reactor

P-BE18

J. Fischer, E.F.Q. Santos, V. dos S. Lopes, E.J. Ribeiro, U.C. Filho, V.L. Cardoso

Effect of Edible Composite Coatings on Color Change in Tomato (*Solanumlycopersicum L.*) Fruits during Storage

P-BE19

A.R.M. Barreto, E.M.M. Aroucha, F.K.G. Santos, R.H.L. Leite, T.A. Oliveira

Poly(3-hydroxybutyrate) production by *Cupriavidus necator* DSM 545, from a byproduct of the ethanol production process

P-B20

K. Zanfonato, L.K. Quines, M. Schmidt, C.S. Gai, F.M. Martinhago, W. Schmidell, G.M.F. Aragão

Exploring the Use of Heparin as First Capture Step in the Purification of Monoclonal Antibodies from Cell Culture Supernatants

P-BE21

I.F. Pinto, S.A.S.L. Rosa, M.R. Aires-Barros, A.M. Azevedo

Screening of different microorganisms for their biodegradation capacity regarding polyester-based thermoplastic polyurethanes

P-BE22

I.P. Fernandes, M. Barbosa, J.S. Amaral, V. Pinto, M.J. Ferreira, M.F. Barreiro

Development of a prototype to access biodegradability of TPU shoe soles under controlled conditions

P-BE23

I.P. Fernandes, M. Barbosa, J.S. Amaral, V. Pinto, M.J. Ferreira, M.F. Barreiro

Covalent immobilization of crosslinked trypsin onto electrospun poly(ethylene terephthalate)/poly(lactic acid) nanofiber mats

P-BE24

T.R. Silva, J.M.S. Rocha, M.H. Gil, S.C.S. Pinto, J.A. Lopes da Silva, A.J. Guiomar

Optimization Of Initial Moisture And Temperature In Solid State Fermentation To Produce Cellulases By *Aspergillus Uvarum* On Olive Mill And Winery Wastes

P-BE25

J.M. Salgado, L. Abrunhosa, J.M. Domínguez, A. Venâncio, I. Belo

Cellulase and Xylanase Production by *A. uvarum* in Solid-State Fementation Using a Packed-Bed Bioreactor

P-BE26

J.M. Salgado, L. Abrunhosa, J.M. Domínguez, A. Venâncio, I. Belo

MSAT Strategies in Pharmaceutical Engineering

P-BE27

T.A. Carvalho, A.J. Almeida, R.S. Gaspar, J.C. Menezes

Biodegradation of chlorpyrifos, malathion and methyl parathion using a Compost - Soil matrix enriched with nutrients.

P-BE28

S.A. Upegui, J.F. Saldarriaga, L. Botero

A Study of Contamination Control in Ethanol Fermentation using Flocculent Yeast Cells

P-BE29

L.D. Santos, C.Z. Guidini, M.M. Resende, V.L. Cardoso, E.J. Ribeiro

Effect of temperature, pH and agitation on flocculent characteristics of *Saccharomyces cerevisiae* strains

P-BE30

L.D. Santos, C.Z. Guidini, M.M. Resende, V.L. Cardoso, E.J. Ribeiro

Production of Novel Monoclonal Antibodies Against Extracellular Polysaccharides from *Pleurotus ostreatus* by Using Hybridoma Technology

P-BE31

M. Semedo, S. Martins, A. Karmali, L. Fonseca

Novel Colorimetric Assay of Polysaccharides by Alcian Blue Dye in a 96-Well Microtiter Plate in Basidiomycete Mushrooms

P-BE32

M. Semedo, L. Fonseca, A. Karmali

Effect of the substitution of amine groups of PIL in the synthesis of silica and use in the immobilization of lipase

P-BE33

M.V.S. Oliveira, P.A.A. Rodrigues, N.B. Carvalho, M.M. Pereira, S. Mattedi, C.M.F. Soares, A.S. Lima

Bioactivity evaluation of four technical lignins: Alcell, Indulin-AT, Sarkanda and Curan 27-11P

P-BE34

A. Marques, C.A. Cateto, R. Calhelha, L. Barros, M.J.R.P. Queiroz, M.N. Belgacem, A.E. Rodrigues, I.C.F.R. Ferreira, M.F. Barreiro

Kefir and Probiotic Drinks Produced from Liquid Whey Protein Concentrate

P-BE35

M. Henriques, D. Gomes, C. Pereira

Biological removal of Cr (VI) with reuse of cells

P-BE36

M.T. Natália, L.C. Vicelma, M.R. Miriam, J.R. Eloísio

Immobilization of lipase in silica with ionic liquid, characterization and application for the ethyl esters syntheses

P-BE37

N.B. Carvalho, B.T. Vidal, A.C. Professor, M.V.S. Oliveira, M. Pereira, S. Mattedi, L.S. Freitas, A.S. Lima, C.M.F. Soares

Economic Viability of Biodiesel Produced from *Chlorella vulgaris* Oil: Impact of the Harvesting Step

P-BE38

N. Caetano, T. Ribeiro, L. Ribeiro, C. Silva, T. Mata

Insecticidal Activity of *Myracrodruon urundeuva* Leaf Lectin against *Sitophilus zeamais*

P-BE39

E.V. Pontual, B.R. Belmonte, L.P. Albuquerque, C.A.A. Rocha-Filho, R.A. Sá, R.M.S. Araújo, L.M. Paiva, L.C.B.B. Coelho, T.H. Napoleão, P.M.G. Paiva

Phenylboronic Acid as an Alternative Ligand for Monoclonal Antibodies Capture: Optimization of a washing step

P-BE40

R. dos Santos, S.A.S.L. Rosa, M.R. Aires-Barros, A.M. Azevedo

Immobilization of Peroxidase on Functionalized Carbon Nanotubes for the Synthesis of High Performance Biocat

P-BE41

R.M. Azevedo, J.B. Costa, C.G. Silva, A.P.M. Tavares, J.M. Loureiro, J.L. Faria

Laccase Immobilization over Magnetized Multi-Walled Carbon Nanotubes for Biocatalysis Applicati

P-BE42

J.B. Costa, R.M. Azevedo, C.G. Silva, A.P.M. Tavares, J.M. Loureiro, J.L. Faria

Aerobic Granular Sludge Reactivation Performance in an Anaerobic-Aerobic Sequencing Batch Reactor After Long-term Storage

P-BE43

R.D.G. Franca, H.M. Pinheiro, N.D. Lourenço

Optimization of peptide nucleic acid fluorescence *in situ* hybridization (PNA-FISH) method for the detection of bacteria: the effect of pH, dextran sulfate and probe concentration

P-BE44

R. Rocha, R. Santos, P. Madureira, C. Almeida, N.F. Azevedo

Partial Molar Volumes of Glycine and L-Alanine in Aqueous MgSO₄ Solutions between 278.15 and 308.15 K

P-BE45

C.C. Mota, O. Ferreira, S. Pinho

Improvement of the Upflow Anaerobic Sludge Blanket reactor performance for azo dye reduction by the presence of low amounts of Activated Carbon

P-BE46

R.A. Pereira, M.F.R. Pereira, M. Alves, L. Pereira

Using *Paecilomyces variotii* in a biorefinery concept to produce single-cell protein and bioethanol from hardwood spent sulphite liquor

P-BE47

T.M. Henriques, S.R. Pereira, L.S. Serafim, A.M.R.B. Xavier

High-resolution Crystal Structure Of *Colocasia esculenta* Lectin

P-BE48

P.R. Pereira, J.L. Meagher, I.J. Goldstein, V.M.F. Paschoalin, J.T. Silva, J.A. Stuckey

Determination of Native Molecular Mass and Isoforms Detection of Tarin, The GNA-related Lectin From *Colocasia esculenta*

P-BE49

P.R. Pereira, H.C. Winter, M.A. Vericimo, J.L. Meagher, J.A. Stuckey, I.J. Goldstein, V.M.F. Paschoalin, J.T. Silva

Obtaining Bacterial Cellulose Membranes with Added Starch Acetate

P-BE50

V.C.R. Schmidt, F. Berti, L.M. Porto, J.B. Laurindo

***Geotrichum candidum* lipase purification using alcohol/salt-based aqueous two-phase systems**

P-BE51

W.G. Morais Jr, E.J. Ribeiro, M.M. Resende

Immobilization and Stabilization of β -galactosidase on Duolite A568 by Multipoint Attachment

P-BE52

L.N.S.S. Falleiros, W.G. Morais Júnior, B.V. Cabral, L.D. Santos, M.M. Resende, V.L. Cardoso, E.J. Ribeiro

Granulated Industrial Cork and Cork Powder as Sources of High Added-Value Chemicals

P-BE53

Y.A. Manrique, M.V. Oliveira, P. Pinto, J.M. Loureiro

POSTER SESSION - CHEMICAL ENGINEERING FUNDAMENTALS AND PRACTICE

G^E model and optimization method combinations for prediction of vapor composition in binary vle from T-x data

P-FP1

A.R. Prasad, J.S. Babji, A.A. Kumar

A comparative study on mixing rule and alpha-function combinations for correlation of binary vapor liquid equilibrium data by equation of state

P-FP2

A.R. Prasad, J.S. Babji, A.A. Kumar

Design Of Hydrogel Membranes With Embedded Magnetic Particles

P-FP3

A.C. Manjua, F.V. Chávez, P.J. Sebastião, J.G. Crespo, C.A.M. Portugal

Separation Of Human Immunoglobulin G Subclasses Using Monolith Technology

P-FP4

P. Leblebici, M.E. Leblebici, F. Ferreira-da-Silva, A.E. Ribeiro, A.E. Rodrigues, L.S. Pais

Microprotect project -The use of encapsulated essential oils for protection of stored cereals and legumes

P-FP5

C.F.Silva, J.M.Sousa, F.D.Magalhães, M.M.S.M.Bastos

Analysis of Internal Variables of a Distillation Column Operating with Distributed Control

P-FP6

G.N. Mello, R.A.F. Machado, C. Marangoni,

Catalysts Screening for the Reaction of Nitrobenzene Hydrogenation

P-FP7

C. Sá Couto, L.M. Madeira, C.P. Nunes, P. Araújo

Simultaneous Removal of CO₂ and VOC using a Two Phase Partitioning Reactor

P-FP8

A. Couvert, D. Gómez-Díaz, D. López-Rivas, J.M. Navaza

CO₂ Absorption by Primary Amines: Effect of Chemical Structure and Loading upon Reaction Pathway

P-FP9

A. García-Abuín, D. Gómez-Díaz, D. López-Rivas, J.M. Navaza, A. Rumbo

Synthesis and Characterization of ALPO₄-17 and Evaluation of the Diffusion of n-Paraffins C10-C13 by ZLC Technique.

P-FP10

D.A.A. Gomes, S.Mattedi, M.M. Urbina, A.O.S.Silva, M. Bastos-Neto, L.A.M. Pontes

Vinasse clarification by a combined treatment of coagulation/ flocculation and adsorption

P-FP11

F.L Seixas, D.R.A. Okada, M.B. de Abreu, M.L. Menezes, S.H.B. de Faria, N.R.C. Fernandes-Machado, M.L. Gimenes

Selective Extraction of (Bio)molecules by Applying Novel Aqueous Micellar Two-Phase Systems Composed of Triton X-114 and Ionic Liquids as Co-surfactants

P-FP12

F.A. Vicente, L.P. Malpiedi, A.P. Junior, J.A.P. Coutinho, S.P.M. Ventura

Adsorption of Vanillin and Syringaldehyde by Polymeric Resins: Equilibrium adsorption studies

P-FP13

I. Mota, P.C. Pinto, J.M. Loureiro, A.E. Rodrigues

Influence of ionic liquids as electrolytes in polymer-polymer aqueous biphasic systems

P-FP14

J.H. Santos, J.A.P. Coutinho, A.Pessoa Jr., S.P.M. Ventura

Chemometrics to Study the Ferric Sulphate Leaching of a Portuguese Sphalerite Concentrate

P-FP15

S.M.C. Santos, M.T.A. Reis, M.R.C. Ismael, M.J.N. Correia, J.M.R. Carvalho

Monitoring a Polyesterification Reaction by in-line Near-Infrared Spectroscopy

P-FP16

H.I. Mota, M.J.N. Correia, J.C.M. Bordado

A Comparison Study of Single-Scale and Multiscale Approaches for Data-Driven and Model-Based On-line Denois

P-FP17

R.R. Rendall, M.S. Reis

Potential use of chestnut (*Castanea sativa M.*) husk ashes as a source for potash production

P-FP18

M.D. Torres, J. Seijo

Mechanical Properties of Natural Potassium Soaps Obtained of By-products from the Chestnut Industry

P-FP19

M.D. Torres, J. Seijo

Fiber flow velocity estimation using Electrical Impedance Tomography

P-FP20

P.M. Faia, B. Branco, F. Garcia, M.G. Rasteiro

Production of chitosan microparticles cross-linked with genipin for drug release applications: A DoE approach to identify factors influencing size and shape properties

P-FP21

M.J. Moura, S.P. Martins, B.P.M. Duarte

Configuration characteristics of draft tube conical spouted bed dryer for biomass treatment

P-FP22

M.J. San José, S. Alvarez, I. García

Measurements of Activity Coefficients at Infinite Dilution for Terpenes, Terpenoids and Water in Ionic Liquids

P-FP23

M.A.R. Martins, U. Domańska, B. Schröder, S.P. Pinho, J.A.P. Coutinho

Alkylimidazolium Based Ionic Liquids: Mutual Solubilities and Thermophysical Properties

P-FP24

M.A.R. Martins, C.M.S.S. Neves, K.A. Kurnia, L.M.N.B.F. Santos, M.G. Freire, S.P. Pinho, J.A.P. Coutinho

Degradation of BDE-100 in waters by direct photolysis at ppb level

P-FP25

M.S.F. Santos, A. Alves, L.M. Madeira

Systematic development of kinetic models for systems described by linear reaction schemes

P-FP26

C.S. Vertis, N.M.C. Oliveira, F.P.M. Bernardo

Can the Odor Intensity be Predicted by a Theoretical Model?

P-FP27

P. Costa, M.A. Teixeira, A.E. Rodrigues

The Effect of the Spreading Coefficient on Oxygen Mass Transfer in Gas-Liquid-Liquid systems

P-FP28

H. Pinho, H. David, S. Alves

Recovery of Copper from Sulphuric Solutions Using Hollow Fibre Liquid Membrane Processes

P-FP29

S. Agarwal, M.T.A. Reis, M.R.C. Ismael, J.M.R. Carvalho

Magnetic Classification in wet mode: Proving the concept

P-FP30

P.A. Augusto, T. Castelo-Grande, A.M. Estévez, M.A. Alves, P. Costa, D. Barbosa, M.C. Torrente

POSTER SESSION – CHEMICALS AND MATERIALS

A Calixarene-derived Poly(phenyleneethynylene) as a Thin Film Sensor for High Explosives in Aqueous Media

P-CM1

A.I. Costa, J.V. Prata

Development of Uniform Chitosan ultrathin films on Glass and Silicon Substrates

P-CM3

A.P. Carapeto, A.M. Ferraria, A.M. Botelho do Rego

Effect of Nd Doping on The Binary Perovskite Transformation in $\text{BaCe}_{1-x}\text{Nd}_x\text{O}_3$ ($0 \leq x \leq 0.3$)

P-CM4

M.F. Lobato, A.G. Santos, F.K.G. Santos, C.P. Souza

Substitution of Citric Acid by Oxalic Acid in Obtaining BaCeO₃ by a Combined EDTA and Citrate Complexing Method

P-CM5

A.G. Santos, F.K.G. Santos, M.F. Lobato, C.P. Souza

Low Density Polyester Particles As Lightfillers For Wood-based Panels

P-CM6

Â. Dias, J. Ferra, J. Martins, L. Carvalho, F.D. Magalhães

System researches in obtaining and analysis of the high purity materials

P-CM7

A. Bessarabov, V. Trokhin, L. Trynkina, A. Vendilo

Oligomerization of Glycerol Trough Basic Homogeneous and Heterogeneous Catalysts

P-CM8

M. Matos, N. Gama, R. Silva, A. Barros-Timmons, A. Silvestre, A. Ferreira

Assessing lignin characteristics with impact on performance towards vanillin and syringaldehyde production

P-CM9

C.A Costa, P.C.R Pinto, A.E. Rodrigues

NMR Characterization of Lignins from Kraft Mill Residues as a Prior Step for their Valorization

P-CM10

C. Fernández-Costas, S. Gouveia, M.A. Sanromán, D. Moldes

Mechanical Reinforcement of Poly(lactic acid) with Graphene

P-CM11

C. Gonçalves, A. Pinto, A. Machado, A. Moreira, F. Magalhães

Development of Structured Acrylic Latexes for Decorative Paints

P-CM12

C. Ralheta, J. Moniz, A. Barros Timmons

Experimental and simulation study of xylene isomers and toluene adsorption in metal organic frameworks (MOFs)

P-CM13

C. Siquet, V.D. Martins, M.A. Granato, A.F.P. Ferreira, A.E. Rodrigues

On the synthesis of niobium and tantalum mixed carbide nanostructured and characterization from based mineral columbite

P-CM14

C.M. Barbosa, M.V.M. Souto, M.J.S. Lima, C.P.de Souza, U.U. Gomes

Oxidized Xanthan Gum Cross-linked with Chitosan as Adhesive for Cork

P-CM15

D. Paiva, M.M.S.M. Bastos, F.D. Magalhães

Autohydrolysis as a sustainable alternative for the upgrade of sugarcane straw

P-CM16

P.L. Martins, L.F. Pardo, J.E.L. Galán, A. Ferrer, L.C. Duarte, F.M. Gírio, F. Carvalheiro

Selective Fractionation of Corn Straw Hemicellulose Using Iron Nitrate

P-CM17

N. Santos, P. Moniz, L.C. Duarte, F. Carvalheiro

Integrated Recovery of Lignin and Hemicellulose Derived Compounds from Rice Straw

P-CM18

P. Moniz, L.C. Duarte, C. Serralheiro, L.B. Roseiro, H. Pereira, F. Carvalheiro

Oligosaccharides production from *Annona cherimola* Mill. seeds: optimization and modelling

P-CM19

A.M. Dionísio, P.C. Branco, I. Torrado, L.B. Roseiro, F. Carvalheiro, P.C. Castilho, L.C. Duarte

Influence of Bentonite Clay Concentration and Additives on the Filtrate Volume and Cake Thickness on Water-based Drilling Fluids

P-CM20

F.K.G. Santos, G.A.S. Nóbrega, J.L.B. Oliveira, D.A.A. Gomes

Effect of glycerol plasticizer on chitosan physical properties and its application to chitosan nanoparticles-based biofilms production.

P-CM21

M.Y. Fukumori, H.K.S. Souza, M.P. Gonçalves

Biotechnological conversion of citrus molasses into poly (3-hydroxybutyrate)

P-CM22

J.L. Ienczak, A.A de Melo, F. Dalcanton, M.L. Fiorese, W. Schmidell, G.M.F. de Aragão

Monitoring the Isolation of Ptaquiloside, a Natural Carcinogen From Bracken (*Pteridium* spp.)

P-CM23

J.P. Caçador, R.M. Gil da Costa, M.M.S.M. Bastos

Characterization of Controlled Release Systems: Encapsulated Orange Oil

P-CM24

J.V. Barbosa, F. Martins, C.F. Silva, J.M. Sousa, F.D. Magalhães, M.M.S.M. Bastos

Selective and Sustainable Oxidation of Cyclohexane Catalyzed by Co-doped SnO₂ Nanoparticles under Mild Conditions

P-CM25

T.F.S. Silva, L.M.D.R.S. Martins, R. Nunes, O.C. Monteiro, A.J. Silvestre, A.J.L. Pombeiro

Electrochemical Magnetoassay for the Detection of Genetically Engineered Soybean

P-CM26

C.L. Manzanares, M.F. Barroso, I. Mafra, J. Costa, N. de-los-Santos-Álvarez, M.J.L. Castañón, B. López-Ruiz, M.B.P.P. Oliveira, C. Delerue-Matos

Gold nanoparticles synthesis using sodium borohydride and sodium citrate: A comparative study

P-CM27

D. Cruz, M.F. Barroso, C. Delerue-Matos, J.R. Santos-Junior, R. Fonseca

Oxidation of VOCs in outdoor air catalysed by cellulose/silica supported molybdovanadophosphates [PMo_{12-x}V_x]^{(3+x)-} (x=1,2)

P-CM28

M.C. Loureiro, M. Evtugina, J.A.F. Gamelas, I. Portugal, D.V. Evtuguin

Healing Activity Induced by Glucose/Mannose Lectins in Mice

P-CM29

C.M.L. Melo, V.P. Brustein, A.F.M. Vaz, C.C.B. Cavalcanti, P.M.G. Paiva, J.A. Teixeira, L.C.B.B. Coelho, M.G. Carneiro-da-Cunha, A.M.A. Carneiro-Leão, M.T.S. Correia

Studies of sesquiterpene lactones with potential antitumoral activity: purification, characterization and synthesis of aminoderivatives

P-CM30

M.J.C. Fachada, J.V. Barbosa, R.M. Gil da Costa, D.C.G.A. Pinto, A.M.S. Silva, M.M.S.M. Bastos

Cafestol and Kahweol Content in Espresso Coffees as Influenced by Preparation Parameters

P-CM31

M. Moeenfarid, J.A. Silva, N. Borges, A. Santos, A. Alves

Evaluation of Chlorogenic Acids in Coffee Brews Prepared by Recent Technologies

P-CM32

M. Moeenfarid, L. Rocha, A. Alves

Effect of Doping On The Photocatalytic Activity of TiO₂ Nanowires Prepared By the Hydrothermal Method

P-CM33

M.O. Honório, R.F.P.M. Moreira, A. Mendes, L. Andrade

Evaluation of the total antioxidant capacity of vegetables by using optical conventional methods and a DNA-based biosensor

P-CM34

S. Costa, M.S.B. Gonçalves, M. Rodrigues, M. Correia, A. Carvalho, M.J. Ramalhosa, M.F. Barroso, C. Delerue-Matos

Assessment of the antioxidant capacity of juices using a DNA-based biosensor: Oxidative damage by radicals (a comparative study)

P-CM35

D. Cruz, M.S.B. Gonçalves, M.F. Barroso

Microencapsulation of Vitamin A by Spray-Drying Process

P-CM36

M. Shahgol, B.N. Estevinho, F. Rocha

Explosive Detection by Calix[4]arene-carbazole-containing Polymers

P-CM37

P.D. Barata, J.V. Prata

Development of a high affinity molecular imprinted polymer for the selective removal of 5-FU from contaminated waters

P-CM39

P.E. Sá, M.S.F. Santos, A. Alves

Carbon Nanotubes As Catalysts For Advanced Oxidation Processes: The Role of O, N and S Surface Groups

P-CM40

R.P.Rocha, J. Restivo, A.M.T. Silva, J.J.M. Órfão, M.F.R. Pereira, J.L. Figueiredo

Development of Stimuli-Responsive Smart Hydrogels using Molecular Imprinting and Interpenetrating Polymer Networks

P-CM41

T. Oliveira, P. Reitor, D. Oliveira, P. Kadhivel, R.C.S. Dias, M.R.P.F.N. Costa

Organic-inorganic sol-gel coating of paper surfaces for High Pressure Laminates

P-CM42

S.P. Magina, D.V. Evtuguin, I. Portugal, J. Ferra, P. Cruz

Separation and Concentration of Phenylglycine and Ampicillin through Packed-bed Adsorption

P-CM43

M.F. Vieira, S.H.B. Faria, M. De Souza, R.C. Giordano, R.L.C Giordano

Silica-based nanocoating and modified xylan films for enhancement of paperboard barrier properties

P-CM44

V.M. Dias, I. Portugal, A. Kuznetsova, J. Tedim, M. Zheludkevich, D.V. Evtuguin

Synthesis of Organic Derivatives of Kaolinite. Characterization and Protein Adsorption Properties

P-CM45

M.A. Villa-García, R. Duarte-Silva, M. Rendueles, M. Díaz

Catalytic Wet Peroxide Oxidation of Olive Oil Mill Wastewater over Copper Bearing Zeolite Based Catalysts

P-CM46

K.M. Valkaj, I. Polak, S. Islamović, D. Husanović, S. Zrnčević

POSTER SESSION – ENERGY

Optimization of glycerol-organosolv pretreatment for improving enzymatic saccharification of Eucalyptus wood

P-EN1

A. Romaní, H.A. Ruiz, F.B. Pereira, J.A. Teixeira, L. Domingues

Use of whole-slurry from autohydrolyzed *Eucalyptus* wood for bioethanol production

P-EN2

A. Romaní, H.A. Ruiz, F.B. Pereira, J.A. Teixeira, L. Domingues

Biodiesel by Oil Methanolysis Over Sol-Gel Like VPO Catalysts: Bulk Versus Supported Catalysts

P-EN3

C. Domingues, M.J.N. Correia, R. Carvalho, C. Henriques, J. Bordado, A.P.S. Dias

Screening Yeasts Strains for Bioethanol Production Using Goat Cheese Whey as Raw Material

P-EN4

C. Felizardo, B. Rodrigues, A. Constantino, T. Fernandes, D. Monteiro, F. Neves, L. Dionisio, S. Raposo, M.E. Lima-Costa

Reactivation of Microbial Fuel Cell prototypes after a long shut down period

P-EN5

A. Canavarro, V. Mendes, R.J. Barros

A Kinetic Overview of Fermentative Performance of *Saccharomyces cerevisiae* Using Carob Industry Wastes as Carbon Source

P-EN6

B. Rodrigues, A. Constantino, S. Raposo, J.M. Peinado, M.E. Lima-Costa

Catalytic pyrolysis of biomass and residue of sisal fiber

P-EN7

C.R de O. Félix, A.F. de A. Júnior, A.S. Silva, M.M. Albuquerque, C.A. Pires, V.T. Silva, S.T. Brandão

Synthesis and Electrochemical Characterization of a New Ni@Pt Core-Shell Supported Nanocatalyst

P-EN8

M.A. Esteves, A.I. de Sá, A. Capelo, L. Canguero, R. Vilar, C.M. Rangel

Influence of Dry Mass Content from Pseudostem in Conversion of Cellulose to Glucose for Bioethanol Production

P-EN9

P.K. Souza, O. Souza, N. Sellin, C. Marangoni

VHG Fermentation using Goat Cheese Whey as Raw Material

P-EN10

F. Neves, B. Rodrigues, A. Constantino, C. Felizardo, D. Monteiro, T. Fernandes, L. Dionisio, S. Raposo, M.E. Lima- Costa

Co-gasification of Wastes Generated During Rice. Production in Portugal

P-EN11

F. Pinto, R.N. André, M. Mirand, D. Neves

Study of the effect of experimental conditions on co-pyrolysis of rice husk and plastics wastes

P-EN12

P. Costa, F. Pinto, M. Miranda, M. Rodrigues

Pretreatment of Lignocellulosic Materials as Biomass by Supercritical -CO₂ Explosion for Biofuel Production

P-EN13

K.Y.F. Kawase, G.L.V. Coelho

Hydrogen Generation From Catalytic Hydrolysis Of Sodium Borohydride On A Mini-Reactor For Portable Applications

P-EN14

H.X. Nunes, M.J.F. Ferreira, C.M. Rangel, A.M.F.R. Pinto

Process Integration in an Industrial Hazardous Waste Treatment, Elimination and Valorisation System

P-EN15

P. Pereira, C. Fernandes, H.A. Matos, C. Martins

Biological treatment of rice straw hemicellulosic hydrolysate aiming to improve ethanol production by *Pichia stipitis*

P-EN16

B.G. Fonseca, A.J. Moya, J.G. Puentes, S. Sánchez, I.C. Roberto

Cuprous Oxide as a promising Solar Water Splitting Photocathode – Solving the Stability Technological Problems

P-EN17

J. Azevedo, M. Schreier, M. Stefik, L. Steier, P. Dias, M. Mayer, C.T. Sousa, J.P. Araújo, A.M. Mendes, M. Graetzel, S.D. Tilley

Nitrogen Limitation on Lipid Accumulation by the Oleaginous Yeast *Rhodospiridium toruloides*

P-EN18

S. Raposo, L. Tangerino, M. Val, F. Guerreiro, M.E. Lima-Costa

Potential renewable biofuel production by *Chlamydomonas reinhardtii*.

P-EN19

R.L. Costa, T.V. Oliveira, L.D. Santos, J.S. Ferreira, F.R.X. Batista

Hydrogen production by photocatalytic reforming of biomass using carbon nanotube-TiO₂ catalysts

P-EN20

L. Ferreira, J.L. Faria, C.G. Silva

Influence of the Presence of an Inert Gas in Reactions with Ethanol for H₂ Production with Cu-Ni Catalysts Supported in CeO₂ e Nb₂O₅

P-EN21

I. Dancini-Pontes, M. De Souza, F.A. Silva, M.H.N.O. Scaliante, N.R.C. Fernandes-Machado

Ethanol Steam Reforming Over Cu-Ni/Nb₂O₅ Based Catalyst: Evaluation of Mass, Temperature and Reactants Concentration

P-EN22

F.A. Silva, I. Dancini-Pontes, M.V.C. Gandolfi, M.H.N.O. Scaliante, M. De Souza, N.R.C. Fernandes-Machado

Catalytic Degradation of Polypropylene using Vermiculites, Montmorillonites and Zeolites

P-EN23

A. Ćwik, A. Pereira, D. Paulo, M. Motak, T. Grzybek, M.A.N.D.A. Lemos, F. Lemos

Co-Processing of Waste Plastic Film and Hydrocarbons over HZSM-5

P-EN24

D. Afonso, I.M. Fonseca, S. Martins-Dias, M.A.N.D.A. Lemos, F. Lemos

Biodiesel Quality Index based on EN 14214, ASTM D6751 and ANP 14/2012 standards

P-EN25

C. Ciubota-Rosie, R. dos Santos De Agostini, J.R. Ruiz, M.J. Ramos, Á. Pérez

Fast Pyrolysis of Banana Leaves in a Fluidized Bed Reactor for Bio-oil and Biochar Production

P-EN26

N. Sellin, D.R. Krohl, C. Marangoni, O. Souza

Synthesis and Testing of Polymer Crosslinked Materials for Applications in Energy Storage and Li-S Batteries

P-EN27

P. Tristão, H. Costa, P. Kadhivel, R.C.S. Dias, M.R.P.F.N. Costa

The Role of Thermochemical Processes on Biomass Wastes Conversion into Bio-Fuels

P-EN28

F. Pinto, R.N. André

Energetic Valorisation of *Eucalyptus Globulus* Stumps by Steam and Oxy-gasification

P-EN29

R. Andre, F. Pinto, M. Miranda, D. Neves

Production of Hydrogen for Fuel Cell: Modelling of an Ethanol Microreformer Coupled to a PEMFC

P-EN30

M. De Souza, S.H.B. Faria, G.M. Zanin, F.F. Moares

A New Sugar-Rich Substrate, From Agro-Industrial Wastes For Bioethanol Production

P-EN31

T. Fernandes, D. Monteiro, A. Constantino, B. Rodrigues, C. Felizardo, F. Neves, J. Peinado, M.E. Lima-Costa, S. Raposo

Pyrolysis of Sweet Sorghum Bagasse: Micro and Pilot scale Analyses

P-EN32

T.J.P. Oliveira, C.R. Cardoso, C.H. Ataíde

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J.A.S. Júnior, T.J.P. Oliveira, C.H. Ataíde

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V. João, M.E. Lima-Costa, R.J. Barros

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V.B. Oliveira, L.R.C. Marcon, D.P. Pinto, M. Simões, A.M.F.R. Pinto

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V.B. Oliveira, J.P. Pereira, A.M.F.R. Pinto

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A.F. Ferreira, A. Rai, L. Ferreira, P.N. Simões

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A. Bessarabov, T. Stepanova, A. Kvasyuk, A. Vendilo

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A. Nogueira, D. Silva, C.G. Baptista

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F. Yamashita, S. Ichimura

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J.P. Marques, H.A. Matos, C.P. Nunes

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J.M. Heinrich, H.A. Irazoqui

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J. Gomes, T. Santos, J. Puna

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M.V. Mendonça, I.M. João, J.M. Silva

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T.R.A. Portela, R.M.B.O. Duarte, A.C. Duarte, I. Portugal

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A. Carvalho, A.F. Mimoso, A.N. Mendes, H.A. Matos

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A.M.T. Silva, L.M. Pastrana-Martínez, S. Morales-Torres, V. Likodimos, P. Falaras, J.L. Figueiredo, J.L. Faria

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A.M. Díez, E. Rosales, M.A. Sanromán, M. Pazos

Optimization of Hydrogen Peroxide Generation in the Electro-Fenton Process: Application on Winery Wastewater Treatment

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O. Iglesias, S. Mediavilla, A.M. Díez, M.A. Sanroman, M. Pazos

Catalytic ozonation of sulfamethoxazole in simulated natural water

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A. Gonçalves, J.J.M. Órfão, M.F.R. Pereira

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A.P. Soares Dias, G. Barreiros, J. Gomes, A. Velez

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A.L. Gonçalves, J.C.M. Pires, M. Simões

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A.S. Fajardo, R.F. Rodrigues, R.C. Martins, L.M. Castro, R.M. Quinta-Ferreira

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A.T.A. Baptista, M.O. Silva, F.P. Camacho, T.R.T. Santos, L. Ferreira-Pinto, L.B. Beltran, P.F. Coldebella, M.F. Vieira, R. Bergamasco, A.M.S. Vieira

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M.O. Silva, F.P. Camacho, A.T.A. Baptista, W.M. Giufrida, L. Ferreira-Pinto, E. Bonafe, P.F. Coldebella, J.V. Visentainer, M.F. Vieira, R. Bergamasco, A.M.S. Vieira

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A.M.A. Pintor, R.S. Souza, V.J.P. Vilar, C.M.S. Botelho, R.A.R. Boaventura

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C.A. Orge, M.F.R. Pereira, J.L. Faria

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E. Bocos, C. Fernández-Costas, M. Pazos, M.A. Sanromán

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C. Freitas, O.S.G.P. Soares, J.J.M. Órfão, M.R.F. Pereira, A.M. Fonseca, I.C. Neves

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E.M.S. Machado, M. G. Bernardo-Gil, J.A. Teixeira, S.I. Mussatto

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J.F. Saldarriaga, S. Upegüi, C.R. Montero, G.E. Morales

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