
Symposium on Chemical, Biological and Environmental Engineering

Chair: Alexandra Pinto

Location: B032

Time for presentation: 10min + discussion

Session I (8th.June, 10:15h-11h) | Moderated by Alexandra Pinto, Cidália Botelho and Vânia Calisto

- João Carlos Sousa, Marta O. Barbosa, Ana R. Ribeiro, M. Fernando R. Pereira and Adrián M.T. Silva. Spatial and temporal distribution of contaminants of emerging concern in Ave River #67
- Nuno Moreira, Carlos Narciso-Da-Rocha, María Polo-López, Luisa Pastrana-Martínez, Joaquim Faria, Célia Manaia, Pilar Fernández-Ibañez, Olga Nunes and Adrián Silva. Pilot-scale H₂O₂-assisted heterogeneous photocatalytic treatment of effluents from urban wastewater treatment plants #87
- Hugo Bacelo, Sílvia Santos and Cidália Botelho. Tannin-based adsorbents: preparation and use for arsenic removal from water #104

Session II (8th.June, 11:30h-13:00h) | Moderated by Fernando Pereira, Manuel Simões and Filomena Barros

- A. R. Morgado, M. J. Lima, M. J. Sampaio, C. G. Silva, J. L. Faria and A. M. T. Silva. Effective visible light phenol degradation using photocatalytically active carbon nitride nanosheets #138
- Sofia Mota, Filipa Paulo and Lúcia Santos. Microencapsulation of Eugenol: a promising compound for incorporation in versatile Products #141
- Marta Pedrosa, Luisa Pastrana-Martínez, Manuel Pereira, Joaquim Faria, José Luis Figueiredo and Adrián Silva. Catalytic ozonation of oxalic acid using doped graphene derivatives #92
- Diogo Santos, Manuel Fernando Pereira, Adrián Silva, Salomé Soares and José Figueiredo. Catalytic Wet Oxidation of Phenol over Carbon Nanotubes in Continuous Operation #46
- Isabel Neto and Helena Soares. An environmentally-friendly process to recover Cu and Al from a leaching solution of spent Printed Circuit Boards #84
- Seghir Dekkouche, Sergio Morales-Torres, Ana Rita Ribeiro, Joaquim Luís Faria, Ounissa Kebiche-Senhadji, Clàudia Fontas and Adrián Manuel Tavares Da Silva. Microfiltration membranes for photocatalytic degradation of emerging contaminants #77

Session III (8th.June, 14:30h-16:30h) | Moderated by Francisco Malcata, Miguel Madeira and Arminda Alves

- Elson Gomes, Inês Mota and Alírio Rodrigues. Fractionation of acids, ketones and aldehydes from lignin oxidation broth with SP700 resin #191
- João Carneiro, João Campos and João Miranda. High-throughput production of polymeric microparticles #150
- João Pinto, Mohamed Belgacem, Alírio Rodrigues and Filomena Barreiro. Oxypropylation of lignocellulosic agro-industrial residues – a comparative study #59
- Diogo Dias, Marta Miguel, Maria Bernardo, Nuno Lapa, Inês Matos, Isabel Fonseca and Filomena Pinto. Removal of Cr(III) by using activated carbons produced from rice waste chars #55
- Stephanie Andrade, Joana Loureiro, Maria Pereira and Manuel Coelho. Effects of Gallic acid on Membrane Biophysical Properties: Relevance for Its Biophysical Effects #50
- Maria João Ramalho, Joana Angélica Loureiro, Manuel A N Coelho and Maria Do Carmo Pereira. Liposomes for temozolomide delivery #37
- R. Vinoth Kumar and G. Pugazhenth. Novel low cost ceramic and zeolite-ceramic composite membranes for liquid phase separation applications #78

Session IV (9th.June, 9:30h-10:30h) | Moderated by Arminda Alves, José Teixeira and João Nunes

- Ana Ramos, Rosa Aragão, Carlos Afonso Teixeira and Abel Rouboa. MSW energetic valorisation: sustainability analysis of a Portuguese incineration plant #24
- Hélder F.V. Fontes, Luísa M. Pastrana-Martinez, Joaquim L. Faria, Adrian M.T. Silva and José L. Figueiredo. Evaluation of the parameters affecting the photocatalytic reduction of CO₂ over graphene-based composites #53
- Beatriz Braz, Catarina Moreira, Vânia Oliveira and Alexandra Rodrigues Pinto. Performance of a passive Direct Alcohol Fuel Cell #105
- Adriano Henrique, José A. C. Silva and Alírio E. Rodrigues. Separation of Hexane Isomers Using ZIF-8 #27

Session V (9th.June, 11h-12:30h) | Moderated by Alexandra Pinto, Manuel Alves and Carmen Rangel

- Rami S. Arafah, António E. Ribeiro, Alírio E. Rodrigues and Luísa S. Pais. Optimizing the Separation of Nadolol Stereoisomers by SMB Chromatography using Chiralpak IA Chiral Stationary Phase #17
- Rubia Risso, Pedro Ferraz, Sara Meireles, Isabel Fonseca and Joaquim Vital. Soybean oil methanolysis catalyzed by highly active CaO obtained from waste shells #18
- Isabel Patrícia Fernandes, Maria José Ferreira, Mário Rui Costa and Maria Filomena Barreiro. New Footwear Materials based on Polyurethane and Polyureas #21
- João Valentim, Rúbia Risso, Gaele Cardoso, Sofia Santos, Maria Helena Casimiro, Isabel Fonseca and Joaquim Vital. Methanolysis of soybean oil in a catalytic membrane reactor. Study of the effect of catalyst loading and polymer crosslinking of CaO/PVA composite membranes #34
- Margarida Brito, Cláudio Fonte, Madalena Maria Dias, Ricardo Jorge Santos and José Carlos Lopes. Mixing of Similar Fluids in Mesomixers #39
- Patrícia Cruz, Fernando Rocha and António Ferreira. The axial dispersion performance of a novel oscillatory flow reactor – a design of experiments approach #176

Poster Session

- João Pedro Ferreira, Marco Parente and Renato Natal Jorge. Constitutive modeling of crosslinked actin networks: overview and implementation #2
- Taofiq Oludemi, Sandrina A Heleno, Lillian Barros, Ricardo C Calhelha, Maria Jose Alves, Ana M González-Paramás, Maria F Barreiro and Isabel C F R Ferreira. The potential of Ganoderma lucidum to develop cosmeceutical formulations behind its nutritional value #19
- Túlio Vieira, Sónia Carabineiro, Paulo Fernando Trugilho, Rodrigo Simetti and Breno Loureiro. Chemical changes in heat-treated Eucalyptus urophylla wood #22
- Kamila Wysoczanska and Eugénia A. Macedo. Liquid-liquid extraction of biomolecules in biodegradable ATPS: phase equilibria and partitioning #31
- Maria João Romeu, Patrícia Alves, João Morais, Vítor Ramos, Vítor Vasconcelos and Filipe Mergulhão. Biofilm formation by cyanobacterium Leptolyngbya mycoidea LEGE 06118: surface effect #35
- Patrícia Alves, Joana Moreira and Filipe Mergulhão. Evaluation of bacterial adhesion to biomedical surfaces in controlled hydrodynamic conditions #36
- Andreia Ribeiro, Madalena Dias, Maria Filomena Barreiro and Isabel Ferreira. Tarragon extract as a functional ingredient for development of new pizza dough #40
- Ewelina Chmiel and Jacek Lubczak. Oligoetherols and Polyurethane Foams with silicon atoms #48
- Luís Moreira, Nuno Guimarães, Joana Loureiro, Maria Do Carmo Pereira and Nuno Azevedo. Nucleic Acid Mimics (NAMs) delivery into live bacteria mediated by nanovehicles #49

- Carlos Eduardo Monteiro, Margarida Correia Dos Santos, Antonio Cobelo-Garcia and Miguel Caetano. Platinum-group elements in Portuguese aquatic systems: the (un)known data and future research #54
- Vanessa Natalia de Lima, Carmen Susana De Deus Rodrigues and Luis Miguel Madeira. Hydroquinone degradation by Fenton process: a new application for the bubble column reactor #64
- Sara Ramos, Vera Homem and Lúcia Santos. Is our daily routine reflected in the vegetables we eat? #73
- Joab Silva, Manuel Almeida, Conceição Alvim-Ferraz and Joana Dias. Sweet potato ethanol upgrade using quicklime #74
- Bárbara Vieira, Ariana Pintor, Rui Boaventura, Cidália Botelho and Sílvia Santos. Arsenic removal from contaminated water by adsorption on iron-coated *Sargassum muticum* #79
- Valciney G. De Barros, Rose M. Duda and Roberto A. De Oliveira. Highest methane production from sugarcane vinasse with filter cake in thermophilic UASB reactors #80
- Isabel T. Carvalho, Paula Penêda, Joana Teixeira and Lúcia Santos. Environmental mobility of antibiotics: A global human health treat #85
- Maria J. Lima, Adrián M. T. Silva, Cláudia G. Silva and Joaquim L. Faria. Selective photocatalytic oxidation of alcohols to aldehydes using exfoliated g-C₃N₄ #88
- Raquel A. Fernandes, Maria J. Sampaio, Joaquim L. Faria and Cláudia G. Silva. Photocatalytic synthesis of aromatic aldehydes using ZnO-based catalysts and energy-efficient light sources #89
- Márcia P. Silva, Ana M. Ribeiro, Cláudia G. Silva, Joaquim Faria, José M. Loureiro, Jong-S. Chang, Alírio E. Rodrigues and Alexandre Ferreira. Adsorption behaviour of MIL-100(Fe) under vapour water #102
- Francisco Ramalhosa, Joana Vilas Boas, Vânia Oliveira, Manuel Simões and Alexandra Rodrigues Pinto. Identification of microorganisms with high cell viability for winery wastewater treatment in Microbial Fuel Cells #114
- Ana Moreira, Madalena Dias and José Lopes. Emulsification using the NETmix technology for production of microcapsules #119
- Inês Carvalho and Patrícia Reis. Use of Green Public Procurement for Acquiring Copy Paper and Graph Paper #120
- M.S.S. Santos, L. Peixoto, C. Dias-Ferreira, M.M. Alves and A.Mendes. Coupling bioelectrochemical systems and redox flow batteries for sustainable energy production and storage #123
- Joana Ferreira, Filipa Castro, Fernando Rocha and Simon Kuhn. Droplet-based microfluidic platform for protein crystallization #134
- Catalina Filote, Sílvia Santos, Irina Volf and Cidália Botelho. *Laminaria* sp. and *Fucus spiralis* marine macroalgae as potential biomass sources for biorefinery processing #135
- Anny Kariny Feitosa, Júlia Elisabete Barden, Odorico Konrad, Manuel Arlindo Amador de Matos and Diogo Appel Colvero. Description of household waste in the northeast region of Brazil: Case study in Juazeiro do Norte, Ceará #163
- Diogo Silva, Helder Nunes, Alexandra Pinto and Carmen Rangel. Catalytic Hydrolysis of NaBH₄ for Hydrogen synthesis: Study of recyclability of by-product NaBO₂ #180
- Diogo Colvero, Ana Paula Gomes, Luís António Tarelho, Manuel Arlindo Matos and Anny Kariny Feitosa. Proposal for MSW management facility in a Goiás State municipality, Brazil #181
- Monique Branco-Vieira, Nidia Caetano, Marcos Freitas, Sergio San Martin and Cristian Agurto. Sustainability of microalgae biofuel production #182
- Emanuel Costa, Conceição Ferraz, Manuel Almeida and Joana Dias. *Crambe abyssinica* cultivation in Portugal: Field Study #187
- Regivaldo Filho and Jaênes Alves. Sustainability Assessment of Agricultural Production Units (UPA) of Southern Bahia-Brazil: a study with organic cocoa farmers associated to Cabruca Cooperative #202