

# 附件 6



18 - 20 July 2018

4<sup>th</sup> International Congress

**water, waste**  
and energy management

Madrid, Spain

**Scientific  
Program**

Dear Colleagues,

**The 4th International Congress on Water, Waste and Energy Management (WWEM-18)** is organized by academics and researchers belonging to different scientific areas of the University Complutense of Madrid, University Carlos III of Madrid, University of Extremadura and University of las Palmas de Gran Canaria with the technical support of Sciknowledge European Conferences.

This event has the objective of creating an international forum for academics, researchers and scientists from worldwide to discuss worldwide results and proposals regarding to the soundest issues related to Water, Waste and Energy Management.

This event will include the participation of renowned keynote speakers, oral presentations, posters sessions and technical conferences related to the topics dealt with in the Scientific Program as well as an attractive social and cultural program.

The papers will be published in the Abstracts E-book of the Conference. Those communications considered of having enough quality can be further considered for publication in International Conference Journals. At the authors' choice, those works not suitable for publication in any of the congress journals will be published in the Extended Abstracts E-book.

To finish, I hope that all of you will enjoy the Conference, and I wish our visitors from abroad will have a very pleasant stay in Madrid.

Thank you

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## Local Organizing Committee

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**WEDNESDAY, 18TH JULY 2018**

Schedule	Room 2	Main Room 1
8:30	<b>Documentation delivery</b>	
9:15 - 9:30	<b>Opening session</b>	
9:30 - 10:15		<p><b><u>Plenary talk 1</u></b></p> <p><b>Role of carbon materials on advanced oxidation processes</b> M. Sánchez-Polo University of Granada Spain</p>
10:15 - 11:00	<p><b><u>1. WASTE</u></b></p> <p><b>Desorption of Arsenic from Waste Adsorbent Media</b> Sedef Arıkan Dokuz Eylül University Turkey</p> <p><b>Comparison of food waste and food waste compost properties for the conversion to RDF</b> Ye-Eun Lee Korea Institute of Civil engineering and Building Technology Korea (South)</p>	<p><b><u>2. WATER</u></b></p> <p><b>Synthesis of low cost pillared clays for the removal of pollutants by oxidation with hydrogen peroxide</b> Marzhan Kalmakhanova M.KH. Dulati Taraz State University Kazakhstan</p> <p><b>Collaborative Work Environments (CWEs) Using Telepresence and Mixed Reality with Emerging Open Standards and BIM for Improved Technical Results with Safety, Higher Assembly Accuracy and Lower Costs in Engineering, Construction, Aviation and Defense</b> Jim Novack Talent Swarm by DYNATEC Spain</p>
11:00 - 11:30	<b>Coffee-Break</b>	
11:30 - 12:00	<b>POSTER SESSION 1</b>	
12:00 - 13:30	<p><b><u>1. WASTE</u></b></p> <p><b>Heavy Metal Removal from Industrial Wastewater Using Green Glass Adsorbents Transformed from Waste LCD Panel Glass</b> Mei-Huey Chen Industrial Technology Research Institute Taiwan</p> <p><b>Chemical and electrochemical pretreatment of waste waters containing inorganic toxic pollutants</b> Petr Prochazka Czech Technical University in Prague Czech Republic</p> <p><b>Valuation of banana peels as biosorbents to remove low concentration Hg (II) from different aqueous solutions</b> Elaine Fabre University of Aveiro Portugal</p> <p><b>Enhancement of landfill leachate biodegradability through coagulation followed by photoFenton oxidation using ZVI</b> Javier Tejera Fundación General de la UCM Spain</p>	<p><b><u>2. WATER</u></b></p> <p><b>Degradation of mixture of antibiotics in water by UV</b> Eun Hea Jho Hankuk University of Foreign Studies Korea (South)</p> <p><b>Application of monopersulfate in AOPs using Fe(II) and Co(II) as metal activators for elderberry wastewater treatment</b> Carlos Amor Universidade de Trás-os-Montes e Alto Douro Portugal</p> <p><b>CFD modeling of photocatalytic reactors based on the mechanistic multiphysics description of the process</b> Cintia Casado Rey Juan Carlos University Spain</p> <p><b>Cleaning Waters Contaminated with Heavy Metals Using New Type Of Submersible Device</b> Roman Romanov Central Siberian Botanical Garden of the Siberian Branch of the Russian Academy of Sciences Russian Federation</p>
13:30 - 15:00	<b>COCKTAIL</b>	

THURSDAY, 19TH JULY 2018

Schedule	Room 2	Main Room 1
9:15 - 10:00		<p><b>Plenary Talk 2</b></p> <p><b>The challenging removal of micropollutants</b> Macarena Munoz University Autónoma de Madrid Spain</p>
10:00 - 11:00	<p><b><u>1. WASTE</u></b></p> <p><b>Waste Management from Recycled Paper Production Under the Goals of Circular Economy</b> M<sup>a</sup> Concepción Monte Fundación general de la UCM Spain</p> <p><b>Removal of Hg in single- and multi-component systems by agricultural wastes</b> Elaine Fabre University of Aveiro <b>Portugal</b></p> <p><b>Respirometric study of Optical Brighteners in textile wastewater</b> Héctor Salas Universitat Politècnica de Catalunya Spain</p>	<p><b><u>2. WATER</u></b></p> <p><b>Removal of natural radioactivity in drinking water through two different systems based on bed filters</b> Nicolas Martin-Sanchez Centro Tecnológico CARTIF Spain</p> <p><b>Optimization of electrodeposited birnessite thin films for an efficient sorption of heavy metals from water</b> Rana Choumane Université Evry Val dâ Essonne France</p> <p><b>Design and fabrication of continuous flow photo-reactor for degradation of organic pollutants</b> Abdel-Hameed M. El-Aassar Desert Research Center Egypt</p>
11:00 - 11:30	<b>Coffee-Break</b>	
11:30 - 12:00	<b>POSTER SESSION 2</b>	
12:00 - 13:30	<p><b><u>1. ENERGY</u></b></p> <p><b>Optimizing energy efficiency of water supply systems</b> J. Ribau Sustainable Innovation Center Portugal</p> <p><b>Optimisation of water and energy consumption in industrial water circuits: a case study</b> Muriel Iten Sustainable Innovation Centre- ISQ Portugal</p> <p><b>Models for estimating daily photosynthetically active radiation</b> F. Ferrera-Cobos CIEMAT Energy Department Spain</p> <p><b>Static analysis of the electricity generation systems from the solar energy as renewable energy</b> Mahmud Sami Donduren Selcuk University Turkey</p>	<p><b><u>2. WATER</u></b></p> <p><b>Degradation of olive mill wastewater by Fenton's reagent process</b> Jose A. Peres Universidade de Trás-os-Montes e Alto Douro – UTAD Portugal</p> <p><b>Evaluation of bisphenol A removal from water bodies using Eco-friendly technique</b> Alaa El Din Mahmoud Friedrich-Schiller University Jena Germany</p> <p><b>Sewage Treatment Plant for Highly Seasonal Load at Pilgrim Center</b> Vishwanathan Arangath Vasco Environmental India Private Limited India</p> <p><b>Nitrates and other pollutants removal from water resources using multifunctional polyurethane foams</b> Suset Barroso Solares University of Valladolid Spain</p>
13:30 - 15:00	<b>COCKTAIL</b>	
19:30 - 21:30	<b>TOURISTIC VISIT-FREE WALKING TOUR</b>	

**FRIDAY, 20TH JULY 2018**

Schedule	Room 2	Main Room 1
9:00 - 11:00	<p><b><u>1. WASTE</u></b></p> <p><b>Household waste potential for façades refurbishment. The case of Spanish schools solar control devices</b> Oriol Pons UPC-Barcelona Tech Spain</p> <p><b>Diagenesis and long-term stability of Ca-rich ash waste disposal sites</b> K. Leben University of Tartu Estonia</p> <p><b>Two Novel uses of Fluorescence Spectroscopy in Wastewater Management</b> M. B Borup Brigham Young University USA</p> <p><b>Rehabilitation of educational architecture through waste-based intelligent façade layers</b> Oriol Pons UPC-Barcelona Tech Spain</p> <p><b>Optimization of flocculation coagulation for the recovery of microalgae from a high-yield algal channel</b> Slaoui Miloudia Laboratory of Energy, Materials and Durable Development (EMDD) Morocco</p> <p><b>Low-energy waste processing from food, plant and animal production by torrefaction</b> B. Grycova Institute of Environmental Technology Czech Republic</p>	<p><b><u>2. WATER</u></b></p> <p><b>Enhanced oil removal from water-oil stable emulsions using electrospun PMMA-based blends fibrous mats</b> Suset Barroso Solares University of Valladolid Spain</p> <p><b>Importance of Irrigation in Agricultural Sustainability</b> Z. Bayramoğlu Selcuk University Turkey</p> <p><b>Assessing water scarcity footprint of wine production in the Alentejo region, Portugal: preliminary results</b> P. Presumido Instituto Politécnico de Bragança Portugal</p> <p><b>Phase Equilibrium Condition Measurements in Carbon Dioxide Hydrate Forming System Coexisting with Sodium Chloride Aqueous Solutions</b> Rihito Nakane University of the Ryukyus Japan</p> <p><b>The Effect of Mixing Time in Scaling Quantity of Injection Water</b> Saeed Abbasi Research Institute of Petroleum Industry (RIPI) Iran</p> <p><b>Comparing Canopy Temperature of Soybean Irrigated by Surface and Subsurface Drip Irrigation Method under Mediterranean Conditions</b> Begum POLAT Akdeniz University Turkey</p>
11:00 - 11:30	<b>Coffee-Break</b>	
11:30 - 12:00	<b>POSTER SESSION 3</b>	
12:00 - 13:30	<p><b><u>2. WATER</u></b></p> <p><b>ECOdeclare methodological framework: Eco-Efficiency, and Eco-Effectiveness integrated on Environmental Management Systems</b> Fernando Cunha IPS Portugal</p> <p><b>New Methodology in Fracture Characterization by Petrophysics and Drilling Data</b> Mohammad Parvazdavani Research Institute of Petroleum Industry (RIPI) Iran</p> <p><b>Impact of doping and anchoring organic dye molecules on the electronic and optical properties of monoclinic bismuth vanadate</b> Karolina Ordon Le Mans University</p>	<p><b><u>2. WATER</u></b></p> <p><b>Biopolymer Hydrogels and Their Uses in Water Purification</b> Sinem Palantöken SALSA (School of Analytical Sciences Adlershof) Germany</p> <p><b>New Methodology in Determining Well Water Gas Ratio from Water Production Salinity in Gas Reservoirs with Aquifer</b> Mohsen Safari Research Institute of Petroleum Industry (RIPI) Iran</p> <p><b>Prediction and Modeling of Scale Precipitation in Water Injection Process to Hydrocarbon Reservoirs</b> Saeed Abbasi Research Institute of Petroleum Industry (RIPI) Iran</p>
13:30 - 15:30	<b>CLASSICAL MUSIC CHAMBERT CONCERT and CLOSING COCKTAIL</b>	



Topic 1 WASTE  
 Topic 2 WATER  
 Topic 3 ENERGY

POSTER SESSION 1 Wednesday, 18th July 2018			
Title	Author	ID	Topic
Industrial catalytic applications of valorized zinc oxide from non-ferrous metal waste	Enrique Añó	414	1
Thermal valorization of sludge wastes from Paper industry in a conical spouted bed combustor	Maria J San Jose	476	1
Characterization of Carbonized Porous Media manufactured by Sewage Sludge in Pyrolysis conditions	Younghan Yoon	521	1
Aerobic and anaerobic decomposition of wood sludge from pulp production with enzyme additions	Jiri Rusin	549	1
Analysis of the feasibility of the use as fertilizers, of leachates from a mechanical biological treatment plant for municipal solid waste	Jonathan Cardoso	387	1
Anaerobic digestion of selected waste biomass from the pharmaceutical industry	Katerina Chamradova	551	1
Dehydrated biomass recovered from processing of "biju" maize flour and its potential as new ingredient	Manoel Soares Júnior	392	1
Physicochemical quality and sensory acceptance of biscuits with partial replacement of wheat flour by dehydrated biomass recovered from processing of "biju" maize flour	Manoel Soares Júnior	393	1
Dehydrated biomass recovered from processing of "biju" maize flour in cereal bar	Márcio Caliari	394	1
Shelf life of cereal bar formulated with dehydrated biomass recovered from processing of "biju" maize flour, rice flakes and oat flakes	Márcio Caliari	395	1
Desorption of lead from a heavy metal-polluted calcareous soil	Antoine Karam	399	1
Nitrification process in treatment of leached sludge by a sequential batch biological reactor SBBR	Álvaro Chávez Porras	610	1
Vermicomposting in processes of decontamination of recalcitrant sludge	Álvaro Chávez Porras	611	1
Evaluation of solid residues from waste incineration	Veronika Blahuskova	620	1
Activated carbons prepared from a compost obtained in mechanical biological treatment plants for municipal solid waste processing	Helder Gomes	624	1
New concept of bioconversion of tanned leather fibres with applications in the construction industry	Gabriel Zainescu	712	1
High yield hydrogel systems obtained from leather wastes	Gabriel Zainescu	713	1
Exchangeable acidity in a residual peat soil amended with calcitic limestone	Antoine Karam	766	1
Biological degradation of the textile dye Remazol Blue using the pedicels of dates as a support and organic substrate for microbial consortia	Rezzaz-Yazid Hynda	249	1

**POSTER SESSION 1**  
**Wednesday, 18th July 2018**

Title	Author	ID	Topic
Removal of metylene blue from aqueous solution by adsorption onto olive cake	Rezzaz-Yazid Hynda	556	1
Treatment and Characterization of new local clay materials from El-Menia (Ghardaïa, Algeria) for their potential uses in wastewater treatment. A case study of industrial liquid wastes	M. Boufatif	233	1
Valorisation and Recycling Paper Mill Waste: Search new Ceramic Formulation to Improve Rheological and Physical-Mechanical Properties.	Bachir Chemani	335	1
Heavy Metal Removal from Industrial Wastewater Using Green Glass Adsorbents Transformed from Waste LCD Panel Glass	Mei-Huey Chen	555	1
Treatment of textile baths in solar pond reactors: Influence of pH and process intensification on their environmental performance	Luis Miguel Salazar	762	1
Uptake capacity of adsorbent materials derived from municipal solid waste for CO2 capture at post combustion condition	J.L. Díaz de Tuesta	729	1

**POSTER SESSION 2**  
**Thursday, 19 th July 2018**

Title	Author	ID	Topic
Zinc Oxide (ZnO) for Water purification	J. A. Navío	232	2
Nanofiber membrane functionalized with molecularly imprinted polymers for humic acid removal: Thermodynamic study	Muhammad Ali Zulfikar	315	2
GrayWaters – A low-cost gray water reuse system	Fernando Moita	356	2
Removal of the ammonia nitrogen by ion-exchanged natural zeolite	Gab-Jin Hwang	371	2
Photodegradation of parabens by UV-driven Advanced Oxidation Processes	M. Victoria López Ramón	391	2
Copper ferrite nanospheres synthesized by a solvothermal method as a highly active Fenton catalyst to remove phenolic compounds	M. Victoria López Ramón	412	2
Removal of Tartrazine by different Activated Homogeneous Catalytic Processes. Kinetic aspects	Teresa González Montero	416	2
Tartrazine Removal by Fenton Advanced Oxidation. Multivariable Optimization by RSM	Teresa González Montero	417	2
Elderberry wastewater treatment by photo-Fenton process using UV-C Hg lamp and UV-A LEDs radiation	Jose A. Peres	478	2
Tertiary Treatment based on Free Floating Macrophytes (FFM) to improve nutrient removal in Urban Waste Water Treatment Plants	M.I. Fernández	481	2
Catalytic removal of salicylic acid from water using titanium oxide doped with Fe and Ag	L. Santamaría	486	2
Synthesis of WO <sub>3</sub> nanostructures anodized in dynamic conditions and doped with nitrogen for use in environmental applications	María José Muñoz	526	2
Performance, cytotoxicity and transformation products of sulfonamide antibiotics oxidation with ferrate (VI)	M. Sánchez-Polo	542	2
Photodegradation kinetics of hydrochlorotiazide in aqueous solution based on quantification of ultraviolet radiation	M. Sánchez-Polo	543	2
Removal of herbicide in water by photodegradation process using TiO <sub>2</sub> nanobelt	A. Chenchana	572	2
Catalytic wet peroxide oxidation of 4-nitrophenol with natural and pillared clays from Kazakhstan: Lumped kinetic model of TOC	JL. Diaz de Tuesta	588	2
Oxidation and decoloration of wastewater of a textile factory by electrochemical process	Teresa Zayas	617	2
Photocatalytic properties of coupled system TiO <sub>2</sub> -WO <sub>3</sub> versus its parent oxides	J.A. Navío	695	2
Separation and determination of mixture of Cr (III) and Fe (III) from aqueous solution after solid-phase extraction using chelating resin chelex-100	Amara Rekkab	698	2

**POSTER SESSION 2**  
 Thursday, 19 th July 2018

Title	Author	ID	Topic
New sustainable and automated system for the reuse of water and salt in the textile industry: ECUVal project	C. Gutiérrez-Bouzán	723	2
ANP multicriteria analysis for the selection of alternatives in water supply in a rural area of the Colombian Amazon	J. Cueva	732	2
Adsorptive removal of the endocrine disruptor Bisphenol A from wastewater	Juan García Rodríguez	719	2
Influence of the ruthenium percentage supported on carbon nanospheres for the degradation of a disruptor endocrine by catalytic oxidation	Juan García Rodríguez	722	2
Treatment of agro-industrial water by advanced oxidation processes	Elisenda Pulido	608	2
Enhancement of photo-Fenton processes with oxalate complexes: How economic, scalable, and sustainable is intensification?	Luis Miguel Salazar	761	2
Synthesis and characterization of a keggin type tungsten-vanadium material. Application in wastewater treatment	R. Bagtache	645	2
Water Management strategy in the Gangetic Delta of Coastal Bangladesh under Changing Climate	Monowar Hossain	705	2
Comparison of Measured Soil Water Content with Three Different Soil Moisture Sensor	Begum POLAT	595	2

**POSTER SESSION 3**  
 Friday, 20th July 2018

Title	Author	ID	Topic
A new method for evaluating the relationship between removal efficiency and energy consumption (including industrial discharges) in urban Wastewater Treatment Plants in the Southwest of Spain	M.I. Fernández Fernández	482	3
WATTER Skills. Skills for Water Efficiency and Water-Energy Nexus in Building Construction and Retrofit	Javier González	489	3
Economic Analysis of Biofuel Production Process	Wangyun Won	730	3



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