



## 5<sup>th</sup> Annual Workshop of Young Researchers of IMDEA Energy

<b>09:00-09:30 IMDEA Energy: Current Status and Action plan for 2017. David Serrano</b>		
<b>Chairs: Milan Prodanovic, Patricia Horcajada / Post Doc Communication Session 1</b>		
09:30-09:45	Why should I put money in [type technology name]? Advances in extending the scope of energy systems models	GARCIA DIEGO
09:45-10:00	Macro-encapsulation of inorganic salts as phase change materials for thermal energy storage	ARCONADA NOEMI
10:00-10:15	Small microbes for big solutions: The effect of mechanical stress on bioethanol producing yeasts	TOMAS ELIA
10:15-10:30	Redox Flow Batteries based on Organic Redox couples for Ultrafast Recharge in Electric Vehicles	GARCIA-QUISMONDO ENRIQUE
10:30-10:45	Boosting photocatalytic processes for energy applications: An inorganic point of view	FRESNO FERNANDO
10:45-11:00	Metal-Organic Frameworks as Proton Conductors	VILELA SERGIO
<b>11:00-11:30 Coffee Break</b>		
<b>Chairs: Diego Iribarren, Jesus Palma / Post Doc Communication Session 2</b>		
11:30-11:45	Strategies to design organic moieties as building block for light harvesting hybrid materials	LIRAS MARTA
11:45-12:00	A Dynamic Voltage Restorer for Sensitive Load Protection in Electrical Distribution Systems	ROLDÁN JAVIER
12:00-12:15	Supercritical CO <sub>2</sub> , the working fluid pushing the limits of thermodynamics	REYES MIGUEL ANGEL
12:15-12:30	Wastewater treatment with microalgae and bacteria: Evaluation of the symbiotic relationship	DE GODOS IGNACIO
<b>Chairs: Diego Iribarren, Jesus Palma / Pre Doc Communication Session 1</b>		
12:30-12:37	BOPHY-based conjugated polymer frameworks for hybrid photocatalysts	GARCÍA CARMEN
12:37-12:44	Membrane-Free Flow Battery: A Paradigm Shift in Energy Storage	NAVALPOTRO PAULA
12:44-12:51	CO <sub>2</sub> -Splitting in Thermochemical Redox Cycles using La <sub>0.6</sub> Sr <sub>0.4</sub> Mn <sub>1-x</sub> Al <sub>x</sub> O <sub>3</sub> Perovskites	SASTRE DANIEL
12:51-12:58	Manganese oxide-based for thermochemical energy storage: A comparison of the influence of Cu, Li and Ni doping on redox performance	NTUTHUKO WONDERBOY
<b>13:00-14:30 Poster Session and Lunch</b>		
<b>Chairs: Rebeca Marcilla, Victor de la Peña / Pre Doc Communication Session 2</b>		
14:30-14:37	Biomass catalytic pyrolysis for the efficient production of advanced biofuels	HERNANDO HECTOR
14:37-14:44	Efficient aluminium deposition for rechargeable energy storage systems	MUÑOZ TORRERO DAVID
14:44-14:51	Concentrated solar power based on thermo-electro-chemical devices: beyond turbine engines	DIAZ ELENA
14:51-14:58	Co-catalytic processing of plastic waste and lignocellulosic biomass for producing advanced fuels	JIMENEZ SERGIO

14:58-15:05	Wastewater treatment evolution using microalgae-bacteria consortia and molecular biology characterization	BARREIRO SANTIAGO
15:05-15:12	Fused thiophene as hole transfer units for the synthesis of solar fuels photocatalysts	GARCÍA ALBA
15:12-15:19	Branches of Capacitive Deionization Research	SANTOS CLEIS
15:19-15:26	Validating model of the co-processing of HDO-oil with VGO in FCC units	CRUZ PEDRO

### 15:30-16:00 Poster Session and Break

Chairs: Juan Coronado, Salvador Luque / Pre Doc Communication Session 3

16:00-16:07	A Unified Control of Back-to-Back Voltage Source Converters	RODRIGUEZ ALBERTO
16:07-16:14	Hydrodeoxygenation of Bio-oil Model Compounds Over Ni <sub>2</sub> P Supported on 2D Zeolites	GUTIERREZ SANTIAGO
16:14-16:21	Solar-driven water splitting experiments at lab-scale: cerium and cerium/manganese oxides	ARRIBAS LUCIA
16:21-16:28	Improve the role of TiO <sub>2</sub> in the artificial photosynthesis: from lab to pilot plant scale	REÑONES PATRICIA
16:28-16:35	Adding a prospective view to the sustainability assessment of energy systems	MARTIN MARIO
16:35-16:42	Graphene-based nanocomposites: Hybrid materials to push up energy storage performance	SANCHEZ JAIME
16:42-16:49	The impact of renewable and energy storage technologies on the continuity of power supply	ESCALERA ALBERTO
16:49-16:57	The influence of nickel phosphide loading on h-ZSM5 for m-cresol hydrodeoxygenation	BERENGUER ANTONIO

### Researchers in Training - Posters

<ul style="list-style-type: none"> <li>The effect of mechanical stress on <i>Kluyveromyces marxianus</i> and <i>Saccharomyces cerevisiae</i> in bioethanol production processes</li> </ul>	SALOR JOSE MARIA
<ul style="list-style-type: none"> <li>Reversible aqueous zinc/manganese oxide battery</li> </ul>	PAEZ TERESA
<ul style="list-style-type: none"> <li>Towards highly conducting polymers : in situ polymerization into porous Metal-Organic frameworks</li> </ul>	SALCEDO PABLO

### 17:00-17:30 VOTING FOR AWARDS

18:00- AWARDS AND CLOSING CEREMONY (David Serrano, Manuel Romero)