

## Press release

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### Green Chemistry PhD wins Excellence Award

#### Jesús Esteban Serrano takes 2018 EFCE Chemical Reaction Engineering award

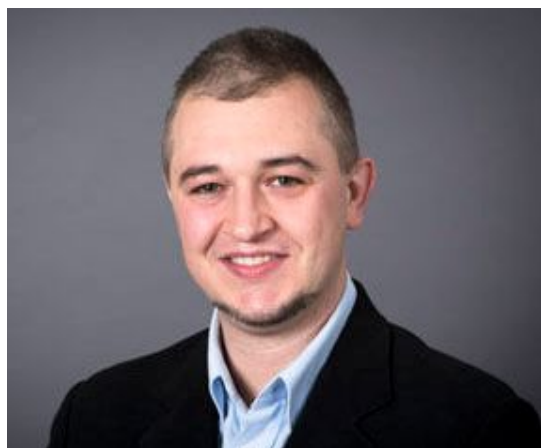
Dr. Jesús Esteban Serrano will receive the **2018 EFCE Excellence Award in Chemical Reaction Engineering** for his PhD thesis "Green processes for the production of glycerol carbonate and solketal".

The award recognizes an outstanding PhD thesis and is judged on the breadth and depth of study, industrial relevance, innovation, dissemination of the results and the European dimension.

Serrano, who completed his PhD between 2010 and 2015 at the Complutense University of Madrid in Spain under the supervision of Professor Miguel Ladero, impressed the judges with its broad range and its wide dissemination – the work has already been published in nine journals and 12 presentations. Currently, he holds the position of a postdoctoral researcher at the Max Planck Institute for Chemical Energy Conversion in Mülheim an der Ruhr, Germany.

The selection committee stated: "This thesis constitutes an exemplary application of CRE methods (phase equilibria, chemical kinetics, model discrimination) to green chemistry processes."

The committee also noted that Serrano's work encompasses experimental work and modelling, spanning from phase equilibrium measurement to reaction kinetics and using an interesting range of techniques. The focus on typical "biorefinery type" reactions using glycerol and a reactant under conditions of limited miscibility for production of glycerol carbonate and solketal makes the research highly applicable to anyone with an interest in green chemistry. Moreover, while the process is difficult, it is also industrially attractive. The judges noted in particular that Serrano proposed new theories to model the observations made during his PhD work.



The prize consists of a €1500 cash award and a travel grant to attend the 25th International Symposium on Chemical Reaction Engineering in Florence – ISCRE25, Italy, on 21 May, where the prize will be awarded.

The Award is kindly sponsored by BP International Ltd.

Ends



### **Related links**

EFCE media centre (<http://www.efce.info/Media+Centre.html>)

Chemical Reaction Engineering Excellence Award  
(<http://efce.info/ExcellenceAwardCRE.html>)

25th International Symposium on Chemical Reaction Engineering in Florence – ISCRE25 (<http://www.aidic.it/iscre25/>)

### **Notes to media:**

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### **About chemical engineers**

Chemical, biochemical and process engineering is the application of science, maths and economics to the process of turning raw materials into everyday products. Professional chemical engineers design, construct and manage process operations all over the world. Oil and gas, pharmaceuticals, food and drink, synthetic fibres and clean drinking water are just some of the products where chemical engineering plays a central role.

### **About EFCE**

Founded in 1953, The European Federation of Chemical Engineering (EFCE) is a non-profit-making association, whose object is to promote co-operation in Europe between non-profit-making professional scientific and technical societies in 30 countries for the general advancement of chemical engineering and as a means of furthering the development of chemical engineering. See [www.efce.org](http://www.efce.org)

### **About BP**

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