



## BATTERIES AND SUPERCAPS: PRINCIPLES AND APPLICATIONS

October, 20<sup>th</sup> – Thursday

9:00-9:15

Welcome and Introduction

9:15-10:15

Lecture

*Current and next generation of batteries*

Elizabeth Castillo Martínez – Universidad Complutense de Madrid– Spain

10:15-11:15

Lecture

*Introduction to battery modelling*

Erlendur Jónsson - University of Cambridge - UK

11:15-11:45

**Coffee Break**

11:45-12:45

Lecture

*Liquid electrolytes for Li-ion batteries and beyond*

Alexander Ponrouch - ICMAB-CSIC – Spain

12:45-13:45

Lecture

*Ion conducting polymer electrolytes for batteries*

Irene Villaluenga – POLYMAT - Spain

13:45-15:30

**Lunch**

15:30-16:30

Lecture

*Inorganic solid electrolytes for LIBS:*

*General principles, structures and conduction mechanisms*

Maria Luisa Sanjuán – INMA-CSIC - Spain

16:30-17:30

Lecture

*Redox flow batteries: challenges and perspectives*

Paula Navalpotro – IMDEA ENERGIA - Spain

SUPERBAT – THURSDAY OCTOBER, 20<sup>th</sup>



# SUPERBAT INTERNATIONAL COURSE

SUPERBAT – FRIDAY OCTOBER, 21<sup>st</sup>

October, 21<sup>st</sup> - Friday

9:15-10:15 Lecture	<i>Understanding battery performance through in-situ techniques</i> Xiao Hua – Lancaster University – UK
10:15-11:15 Lecture	<i>Organic and polymer electrodes for batteries</i> Javier Carretero González – ICTP-CSIC - Spain
11:15-11:45	<b>Coffee Break</b>
11:45-12:45 Lecture	<i>Electrode-electrolyte interface studies in alkali-ion batteries</i> Maidier Zarrabeitia - Helmholtz Institute Ulm - Germany
12:45-13:45 Lecture	<i>Processing of Inorganic solid electrolytes and electrodes for LIBS</i> Alejandro Várez – Universidad Carlos III - Spain
13:45-15:30	<b>Lunch</b>
15:30-16:30 Lecture	<i>In-situ NMR and EPR Methods for studying Redox Flow batteries</i> Evan Wenbo Zhao- Radboud University Nijmegen – Netherlands
16:30-17:30 Lecture	<i>Electrochemical double layer capacitors</i> Ricardo Santamaria – INCAR-CSIC - Spain
17:30-18:15 Practical	<i>Exercises and Tests</i>

Everyone is **WELCOME** to join us!

Contact: [superbatcourse@gmail.com](mailto:superbatcourse@gmail.com)