



Summer School
**Multivalent Batteries:
Fundamentals & Applications**

10/6-14/6 2019
"Sjösportgården" Sea Lodge,
@Smögen, West Coast of Sweden



CARBAT and Chalmers Battery Initiative are pleased to announce a Summer School on "**Multivalent Batteries: Fundamentals & Applications**". It is aimed at PhD students, postdocs, and industry researchers alike and will treat Mg, Ca and Al-based rechargeable batteries.

Purpose and Aim

Spread knowledge about these exciting new battery technologies.

Contents

Lectures by world-leading researchers in the area, exercises for individual and deeper learning, and ample free-time for battery discussions and networking.

Prerequisites

MSc in Chemistry, Physics, Materials Science, or relevant battery expertise.

Examination and Credits

Attendance and solved exercises account for 3 hec.
A certificate will be issued by the organizers upon request.

Time and Place

Arrival evening June 10th – Departure June 14th 2019. Sjösportgården, Smögen, West Coast of Sweden. Nearest airport is Landvetter (Göteborg) (GOT), busses to Smögen (travel time ca 2.5 h) depart from Göteborg city centre.

Cost and Sponsoring

We are sponsored both by the H2020 FET-Open project CARBAT and by Chalmers Area of Advance Battery Initiative which is why we can keep costs (very) low. The attendance fees include lodging, full boarding, and all conference facilities and activities.

Fees:	Partners of CARBAT	€250
(excl. VAT)	Academia	€350
	Industry	€500

Please observe: For no-shows the full cost will be charged!

Attendance and Registration

The number of participants is strictly limited to 20. Therefore anyone interested in attending has to send a **declaration of interest** with a brief motivation why to be selected. PhD students should also provide a **supporting letter**. The documents should be sent to patrik.johansson@chalmers.se **March 31st at the latest**, for selection. A letter of confirmation of acceptance with registration details will be sent shortly thereafter to those shortlisted for the summer school.

Most welcome and please spread the word about this event!

/The Organizers

Chalmers Battery Initiative

Preliminary Schedule & Lecturers

Date Time	Monday June 10	Tuesday June 11 Basics	Wednesday June 12 Modelling	Thursday June 13 Techniques/Technology	Friday June 14
8.15-9.00		Introduction (P. Johansson & R. Palacin)	<i>Excursion</i>	Electrochemistry (A. Ponrouch)	<i>Departure</i>
9.15-10.00		Application Demands (H. Berg)		Diffraction (R. Palacin)	
10.00-10.30		<i>Coffee</i>		<i>Coffee</i>	
10.30-11.45		Ca (R. Palacin)		Cells & Prototyping (A. Würsig)	
11.45-13.00		<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	
13.00-13.45		Mg Al (R. Dominko)	Modelling 1 (E. Arroyo)	Life Cycle Assessment (R. Arvidsson)	
14.00-14.45		Spectroscopy (R. Dominko)	Modelling 2 (P. Johansson)	Exercises 1+2 cont.	
14.45-15.15		<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>	
15.15-16.00		Exercise 1 (D. Monti)	Exercise 2 (G. Åvall, F. Årén)	Exercises 1+2 cont.	
16.15-17.00		Exercise 1 (cont.)	Exercise 2 (cont.)	Presentations	
17.00-19.30	<i>Arrival</i>	<i>Free time</i>	<i>Free time</i>	<i>Free time</i>	
19.30-	<i>Dinner</i>	<i>Dinner</i>	<i>Dinner</i>	<i>Conf. dinner</i>	