

#REF!

Introduction to Battery Technology

draft programme

last changed 09/01/2025

P ... plenary lectures (all students), St ... student presentations,
B ... specialised lectures

Sunday 14/09/2025

18:00 student registration
18:00 optional: Get-together of all lecturers
20:00 welcome reception (bar)
20:30 welcome dinner


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Monday 15/09/2025

P.01	08:30	Welcome and General Introduction	Robert Steinberger-Wilckens (U Bham)
	09:00	Sustainable and Renewable Energy Future	Jens Oluf Jensen (DTU)
	09:45	coffee break	
P.02	10:00	Introduction to Fuel Cells and Electrolysis	Artur Majewski (U Bham)
	11:15	break	
P.03	11:30	Thermodynamics and Efficiency of Electrochemical Cells	Jens Oluf Jensen (DTU)
	13:00	lunch	
P.04	16:00	Introduction to Battery Technology	Hans Kungl (FZJ)
	17:30	coffee break	
P.05	17:45	PowerTalk - Panel discussion on the evolution of the 'hydrogen economy'	moderated by Robert Steinberger-Wilckens (U Bham)
P.06	19:15	Introduction to the Students' Project	Shangfeng Du (U Bham)
	20:00	dinner	
St.01	21:00	Students' Introductions I	Robert Steinberger-Wilckens (U Bham)

Tuesday 16/09/2025

B.01	08:30	History of Batteries and their application (Materials I)	Karin Kleiner (MEET)
	09:45	coffee break	
B.02	10:00	Modern Batteries (Materials II)	Karin Kleiner (MEET)
	11:15	break	
B.03	11:30	Li-Ion Batteries: Performance Evaluation and Material Types	Hans Kungl (FZJ)
	13:00	lunch	
P.07	16:00	Characterisation Methods for Fuel Cell, Electrolyser and Battery Materials	Shangfeng Du (U Bham)
	17:15	coffee break	
P.08	17:30	Industry presentation: Catalysis, CO ₂ valorisation & Hydrogen Industry	industry veteran
	18:45	break	
St.02	19:00	Student Q&A session with industry veteran	all lecturers & students
	20:00	dinner	
St.03	21:00	Students' Introductions II	Robert Steinberger-Wilckens (U Bham)

Wednesday 17/09/2025

B.04	08:30	Spectroscopy and Diffraction – advanced characterisation techniques	Karin Kleiner (MEET)
	09:45	coffee break	
B.05	10:00	Cell and Pack Designs for Batteries	Sébastien Martinet (CEA)
	11:15	break	
B.06	11:30	Manufacturing of Batteries	Sébastien Martinet (CEA)
	13:00	lunch	
	14:00	excursion	
	21:00	dinner	

Thursday 18/09/2025

P.09	08:30	Atomistic Modelling in fuel cell, electrolyser and battery research	Jin Chang (DTU)
	09:45	coffee break	
B.07	10:00	System Technology and Safety for Batteries	Sébastien Martinet (CEA)
	11:15	break	
B.08	11:30	All Solid State Li-Ion Batteries	Hans Kungl (FZJ)
	13:00	lunch	
B.09	16:00	Transport Modelling of Batteries	Jin Chang (DTU)
	17:15	coffee break	
B.10	17:30	Metal-Air Batteries	Hans Kungl (FZJ)
	18:45	break	
St.04 / P.10	19:00	Student project time (coaching) /alternative/ Beyond hydrogen: e-fuels and chemicals	all lecturers & students / Robert Steinberger-Wilckens (U Bham) & Hans Kungl (FZJ) &
	20:00	dinner	

Friday 19/09/2025

B.11	08:30	Beyond Lithium - Resource-Efficient Batteries	Jin Chang (DTU)
	09:45	coffee break	
B.12	10:00	Challenges of future application (Materials III)	Karin Kleiner (MEET)
	11:15	break	
P.12	11:30	industry presentation t.b.c.	t.b.c.
	13:00	lunch	
St.05	16:00	Optional ECTS exams	
	16:45	coffee break	
St.06	17:00	Students' Project Presentations	Jens Oluf Jensen (DTU) & Artur Majewski (ex-U Bham)
P.13	19:00	Farewell session	Robert Steinberger-Wilckens (U Bham)
	20:30	farewell dinner	