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**Lecture „Materials for Efficient Energy Use“ (EnTV, 3CP)
 and corresponding Practical Course (EnTP, 4CP)
 in the Master Degree Study Program Materials Chemistry**

SS 2017, Thursday 10:15 h to 11:45 h,
 Building B22, Lecture Hall 2; Start: 20.04.2017

Date	Chapter	Topic	Lecturer
20.04.17	1	Introduction to Energy Storage / Energy Transformation	Presser
27.04.17	2	Supercapacitors 1	Presser
04.05.17	3	Supercapacitors 2	Presser
11.05.17	4	Lead Acid Accumulators	Presser
18.05.17	5	Li Ion Batteries 1	Ruiyong Chen
25.05.17		Christi Himmelfahrt	
01.06.17	6	Heat Storage Systems	Hempelmann
08.06.17	7	Redox Flow Batteries	Hempelmann
15.06.17		Fronleichnam	
22.06.17	8	Fuel Cells	Hempelmann
29.06.17	9	Light Generation	Scheschkewitz
06.07.17	10	Storage of Hydrogen	Scheschkewitz
13.07.17	11	Li Ion Batteries 2	Ruiyong Chen
20.07.17	12	Photo (electro-)catalytic Water Splitting	Ruiyong Chen
27.07.17	13	Exercises, Preparation for Examination	Ruiyong Chen
?		Written Examination	

Practical Course Energy Technology (EnTP, 4 CP)

Individual appointments

Nr.	Thema	Betreuer	Ort
1	Supercapacitors	V. Presser et al.	INM
2	Li-Ion-Battery: assembling of Dual-Lithium- battery and Li button cell charge / discharge curves	Ruiyong Chen & Yonglai Zhang	KIST
3	Redox flow battery: charge / discharge curves VRFB	Ruiyong Chen & Yonglai Zhang	KIST
4	PEM-fuel cell: membrane by solution casting, electrocatalysts by ED, membrane-electrode assembly, polarisation curve	Galina Skorikova, Zhenzhen Wang	KIST
5	H₂-Storage	Carsten Präsang	AAC

Each experiment consists of:

Individual learning	3,5 h
Preparatory discussion / test	0,5 h
Experimental work	4 h
Data evaluation	4 h
Writing of protocol	6 h
Preparation for examination	<u>6 h</u>
	24 h