

ELECTROCHEMICAL IMPEDANCE SPECTROSCOPY II

1	Course Title:	ELECTROCHEMICAL IMPEDANCE SPECTROSCOPY II	
2	Course Code:	FZK6114	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. AHMET PEKSÖZ	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	peksoz@uludag.edu.tr, (0224) 29 41 713, Prof. Dr. Ahmet PEKSÖZ, UÜ Fen Edebiyat Fakültesi, Fizik Bölümü 16059 Görükle Kampüsü Bursa	
17	Website:		
18	Objective of the Course:	To introduce basic impedance experiments and physical models for equivalent electronic circuit in electrochemical impedance spectroscopy (EIS).	
19	Contribution of the Course to Professional Development:	Learns basic principles of electrochemical impedance spectroscopy	
20	Learning Outcomes:		
		1	Learns investigation of the physical properties of material-electrolyte interfaces
		2	Learns various equivalent electronic circuit models fitted to EIS data
		3	Learns scientific and industrial applications of electrochemical impedance spectroscopy
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21	Course Content:		
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Week	Theoretical	Practice	
1	Electrochemical Instrumentation		
2	Electrochemical and Boundary Conditions, Reversible and Irreversible Interfaces		
3	Potentiostat for EIS Measurement, AC Circuit Theory and Representation of Complex Impedance Values		

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High
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