

Module: Coordination Chemistry			
University/department/institute: Freie Universität Berlin/Department of Biology, Chemistry and Pharmacy/Institute of Chemistry and Biochemistry			
Responsible for the module: module lecturers			
Admission requirements: none			
Qualification aims: The students have advanced knowledge of coordination chemistry and can apply it to issues new to them. They have mastered the theories on describing coordination compounds and know the main reaction types of such compounds. They are aware of the significance of coordination compounds in catalysis, their application as magnetic materials and in molecular electronics. They can solve problem sets from the topic areas covered independently or in groups.			
Content: Bond theory and the reactions of coordination compounds; special classes of ligands such as e.g. non-innocent ligands; molecular magnetism and molecular electronics; general redox reactions of coordination compounds and mixed valence bonds; significance of coordination compounds in supramolecular chemistry and photochemistry; physical methods of characterising complexes; symmetry and stereochemistry of complexes; metal-metal bonds; selected homogeneous catalytic reactions.			
Teaching and learning units	Attendance (Semester hours per week = SH)	Forms of active participation	Study time (hours)
Lecture	3	-	Attendance L 45 Preparation and follow-up L 45
Tutorial	1	Solving problem sets, contributing to discussions	Attendance T 15 Preparation and follow-up T 15 Examination preparation, examination 30
Language of instruction		German or English	
Compulsory regular attendance		Attendance recommended	
Study time, total hours		150 hours	5 CP
Duration of module		One semester	
Module offered		Every summer semester	
Application		Master's program in Chemistry	