

配位化学（全英文）教学日历

（2017-2018 第 1 学期）

课程代码：1900016，学分： 3， 周学时： 6.0

教学班组成：2017 级研究生（硕士生、博士生、留学生） 主讲教师：李晖

课次	周次	授课形式			教学内容
		理论课	课堂讨论	实践教学	
1	4	√	√		Chapter 1 Introduction 1.1 An Introduction To Coordination Chemistry 1.2 The Key Features of Coordination Complex 1.3 Nomenclature of Coordination Complex
2	4	√	√		Chapter 1 Introduction 1.4 Isomerism of Coordination Complex 1.5 Supramolecular Chemistry 1.6 Bio-coordination Chemistry 1.7 Nanochemistry and Coordination Chemistry
3	5	√	√		Chapter 2 The Bonding Theories of Coordination Complex 2.1 Symmetry in Chemistry – Group Theory 2.2 Valence Bond Theory and Hybrid Atomic Orbital
4	5	√	√		Chapter 2 The Bonding Theories of Coordination Complex 2.3 Crystal Field Theory 2.4 Molecular Orbital Theory 2.5 Intermolecular Interaction 2.6 Self-assembly Process 2.7 Construction of Functional Device
5	6	√	√		国庆假期
6	6	√	√		国庆假期
7	7	√	√		Chapter 3 Spectroscopy of Coordination Complex 3.1 Ultraviolet and Visible Absorption Spectroscopy (UV-Vis) 3.2 Infrared Spectroscopy 3.4 Photoelectron Spectroscopy 3.5 Nuclear Magnetic Resonance (NMR) Spectroscopy

					3.6 Electronic Paramagnetic Resonance (EPR) 3.7 Circular Dichroism (CD)
8	7	√		√	Chapter 3 Spectroscopy of Coordination Complex 3.3 X-ray Powder and Single Crystal Diffraction Analysis, The practices in the
9	8	√	√		Chapter 4 The Structure and Physicochemical Properties of Coordination Complex 4.1 The Structures of Several Kinds of Coordination Complexes
10	8	√	√		Chapter 4 The Structure and Physicochemical Properties of Coordination Complex 4.2 Metal-Organic Framework (MOF)
11	9	√	√		Chapter 4 The Structure and Physicochemical Properties of Coordination Complex 4.3 Bio-mimic Coordination Complex 4.4 Thermodynamic Properties and Balances of Coordination Complex in Solution
12	9	√	√		Chapter 4 The Structure and Physicochemical Properties of Coordination Complex 4.5 Magnetic Properties of Coordination Complex
13	10	√	√		Chapter 4 The Structure and Physicochemical Properties of Coordination Complex 4.6 Photochemical Properties of Coordination Complex
14	10	√	√		Chapter 4 The Structure and Physicochemical Properties of Coordination Complex 4.7 Molecular Electronic Devices — Redox-active Coordination Complex 4.8 Solar-energy Conversion and Energy Coordination Complex
15	11	√	√		Chapter 5 Kinetics and Mechanisms of Reactions of Coordination Complex 5.1 Introductory Survey 5.2 Reaction Mechanisms of Coordination and Organometallic Complex 5.3 Substitution Reactions of Coordination Complex
16	11	√	√		Chapter 5 Kinetics and Mechanisms of Reactions of Coordination Complex 5.4 Electron Transfer Reactions of Coordination Complex

					5.5 Homogeneous catalysis 5.6 The Experimental and Theoretical Methods for Studying Mechanisms
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