

# ANNUAL REVIEW

Graduate School of Science, University of Hyogo

2020.4~2021.3

## Contents

◇: Associated Chairs of Graduate School

### GRADUATE SCHOOL OF MATERIAL SCIENCE

Theoretical Physics II	1
Theoretical Physics I	4
Mathematical Science I, II	11
Quantum Simulation Science ◇	17
Low-Temperature Physics & Superconductivity	19
Electrophysics	23
Quantum Magnetism	30
Solid State Photophysics	33
X-Ray Optics	37
Synchrotron-Radiation Electronic-Structure ◇	42
Functional Materials I	45
Functional Materials II	49
Chemical Physics under Extreme Conditions	56
Functional Coordination Chemistry	62
Synchrotron High-Pressure Material Science ◇	68
Surface and Interface of Solid ◇	70
Molecular Reaction Dynamics	72
Organic Chemistry	75
Analytical Chemistry	77

### GRADUATE SCHOOL OF LIFE SCIENCE

Biochemistry	82
Spectroscopy	85
Protein Crystallography	89
Cellular Regulation	91
Structural Cell Physiology	97
Macromolecular Dynamics and X-ray Crystallography ◇	99
Molecular Biochemistry II	103
Molecular Biomachine	106
Biological Signalling	110
Plant Cell and Developmental Biology	113
Functional Nanometry of Biological Macromolecules ◇	117
Cell and Molecular Biology	121
Cellular Structural Physiology	124
Biological Information	129
Regeneration Biology	133
Supramolecular Structural Biology ◇	136
Earth Science	140

### ACTIVITIES

Grants-in-Aid for Scientific Research	143
Other Research Grants	146
Commissioned and Collaborative Research	147
International Exchange	149
Scientific Meetings	150
Doctoral and Master's Theses	153