

CONTENTS

PREFACE	<i>page</i> 5
1. INTRODUCTION	6
2. PHYSICAL QUANTITIES AND SYMBOLS FOR PHYSICAL QUANTITIES	8
2.1. Physical quantities	8
2.2. Symbols for physical quantities	8
2.3. Printing of symbols for physical quantities	8
2.4. Choice of symbols for physical quantities	9
2.5. Modifying signs	9
2.6. Printing of subscripts and superscripts	10
2.7. Use of the words 'specific' and 'molar'	10
2.8. Partial molar quantities	11
2.9. List of recommended subscripts and superscripts and other modifying signs to be used with the symbols for physical quantities	11
(a) Subscripts	11
(b) Superscripts	12
2.10. List of recommended symbols for physical quantities	12
(a) Space and time	12
(b) Periodic and related phenomena	12
(c) Mechanics	13
(d) Thermodynamics	13
(e) Electricity and magnetism	14
(f) Light and related electromagnetic radiations	15
(g) Acoustics	15
(h) Physical chemistry	15
(i) Molecular physics	17
(j) Atomic and nuclear physics	17
(k) Nuclear reactions and ionizing radiations	18
(l) Quantum mechanics	18
(m) Solid state physics	19
(n) Molecular spectroscopy	19
2.11. Mathematical operations on physical quantities	20

CONTENTS

3. UNITS AND SYMBOLS FOR UNITS	<i>page</i> 22
3.1. The International System of Units (SI)	22
3.2. Definitions of the SI base units	22
3.3. Names and symbols for the SI base units	23
3.4. Names and symbols for the SI supplementary units	23
3.5. Special names and symbols for SI derived units	23
3.6. Examples of SI derived units and unit symbols for other quantities	24
3.7. SI prefixes	25
3.8. Units recognized for continued use together with SI	26
3.9. Other units	27
3.10. 'International' electric units	28
3.11. Electric and magnetic units belonging to unit systems other than SI	29
3.12. Printing of symbols for units	29
3.13. Multiplication and division of units	29
4. NUMBERS	30
4.1. Printing of numbers	30
4.2. Multiplication and division of numbers	30
5. RECOMMENDED MATHEMATICAL SYMBOLS	31
6. CHEMICAL ELEMENTS, NUCLIDES, AND PARTICLES	34
6.1. Definitions	34
6.2. Symbols for elements and nuclides	34
6.3. Symbols for particles and quanta	34
6.4. Notation for nuclear reactions	35
7. QUANTUM STATES	36
7.1. General rules	36
7.2. Atomic spectroscopy	36
7.3. Molecular spectroscopy	36
7.4. Nuclear spectroscopy	37
7.5. Spectroscopic transitions	37

CONTENTS

8. NUCLEAR PHYSICS	<i>page</i> 39
8.1. Notation for covariant character of coupling	39
8.2. Character of transitions	39
8.3. Sign of polarization vector (Basel convention)	39
9. THERMODYNAMIC RESULTS	40
10. GALVANIC CELLS	41
10.1. The electromotive force of a cell	41
10.2. The electromotive force of a half cell and the so-called ‘electrode potential’	41
11. SOME COMMON ABBREVIATIONS	43
12. RECOMMENDED VALUES OF PHYSICAL CONSTANTS	44
13. SOURCES	47
13.1. General	47
13.2. Relating to individual sections	47
14. BIBLIOGRAPHY	50
14.1. The publications of the bodies of the Metre Convention	50
14.2. The publications of the work of Technical Committee 12 of the International Organization for Standardization (ISO/TC 12)	50
14.3. Booklet prepared by the Bureau International des Poids et Mesures	52
14.4. Publications of other international organizations	52
14.5. Publications of the British Standards Institution (BSI)	53
14.6. Other documents	54

