



# CONTENTS

<i>General Introduction</i>	v
<i>Foreword to Volume 1</i>	x
<i>Contents</i>	xi
<i>Abbreviated Titles of Periodicals</i>	xiv
<i>Niels Bohr: Biographical Sketch</i>	xvii
1 Family and Education (1885–1910)	xviii
2 Studies in England (1911–1912)	xxi
3 The Quantum Postulates (1913)	xxv
4 Atoms and Radiation (1914–1925)	xxx
5 Quantum Mechanics and Complementarity (1925–1935)	xxxvii
6 Nuclear Physics (1936–1943)	xlII
7 Public Affairs and Epistemology (1943–1962)	xlv

## PART I: SURFACE TENSION OF WATER

<i>Introduction</i>	3
1 Earliest Work	3
2 Danish Academy Prize Essay	3
3 Discussion on a Question of Mechanics	4
4 Judgement of Prize Essays	5
5 First Royal Society Paper	8
6 Addendum to the Prize Essay	11
7 Second Royal Society Paper	11
Danish Texts of Quoted Documents	13
I <i>Curves Pertaining to Surface Tension (1905–06?)</i>	17
II <i>Prize Essay in Physics for 1905</i>	21
III <i>First Royal Society Paper</i>	25
Determination of the Surface-Tension of Water by the Method of Jet Vibration (1909)	

CONTENTS

IV	<i>Addendum to Prize Essay</i>	67
V	<i>Second Royal Society Paper</i>	79
	On the Determination of the Tension of a Recently Formed Water-Surface (1910)	
<b>PART II: ELECTRON THEORY OF METALS</b>		
	<i>Introduction</i>	93
	1 M.Sc. Examination Paper (1909)	93
	2 The Doctor's Dissertation (1911)	95
	3 Early Reactions to the Dissertation from Continental Physicists (1911–1912)	101
	4 Discussions with British Physicists	103
	Early Efforts to Get the Dissertation Published in English (1911–1913)	
	5 Note on the Electron Theory of Thermoelectric Phenomena (1912)	111
	6 Lectures on the Electron Theory of Metals (1914)	113
	7 First Attempt to Get the Dissertation Published in America (1914)	114
	8 Correspondence with G. H. Livens and O. W. Richardson (1915)	116
	9 Last Attempt to Get the Dissertation Published in America (1920)	117
	10 A Book by Paul Suter on the Electron Theory of Metals (1920)	119
	11 Last Correspondence on the Electron Theory of Metals (1928)	121
	Danish and Swedish Texts of Quoted Documents	124
I	<i>M.Sc. Examination Paper</i>	131
	Introduction	132
	General Theory of the Motion of Electrons in a Metal	132
	Conduction of Electricity and Heat	142
	Contact and Thermoelectricity	150
	Electric Conduction under Periodic Forces	153
	The Influence of a Magnetic Field upon the Motion of Free Electrons	158
II	<i>The Doctor's Dissertation</i>	163
	Studier over Metallernes Elektrontheori (1911)	167
	Studies on the Electron Theory of Metals	291
III	<i>Correspondence about the Dissertation (1911)</i>	397
	1 K. Baedeker	398
	2 E. L. Lederer	399
	3 P. Debye	400
	4 M. Reinganum	403
IV	<i>Lecture on the Electron Theory of Metals</i>	411
V	<i>Letters to Oseen and to McLaren (December 1911)</i>	421
	1 Letter to C. W. Oseen	422
	2 Letter to S. B. McLaren	432
VI	<i>Note Concerning a Paper by J. Stark (1912)</i>	435
VII	<i>Note on the Electron Theory of Thermoelectric Phenomena (1912)</i>	439

## CONTENTS

VIII	<i>Lectures on the Electron Theory of Metals Held in the University of Copenhagen in the Spring of 1914</i>	445
IX	<i>Correspondence with G. H. Livens (1915)</i>	473
X	<i>Correspondence with O. W. Richardson (1915)</i>	481

### PART III: SELECTED FAMILY CORRESPONDENCE 1909–1916

	<i>Introduction</i>	495
	<i>Original Texts</i>	496
	<i>Translations</i>	497
	<i>Inventory of Family Correspondence in the Niels Bohr Archive</i>	587

### INVENTORY OF MANUSCRIPTS IN THE NIELS BOHR ARCHIVE

	<i>Documents Related to Surface Tension and the Electron Theory of Metals</i>	593
--	---	-----

## INDEX