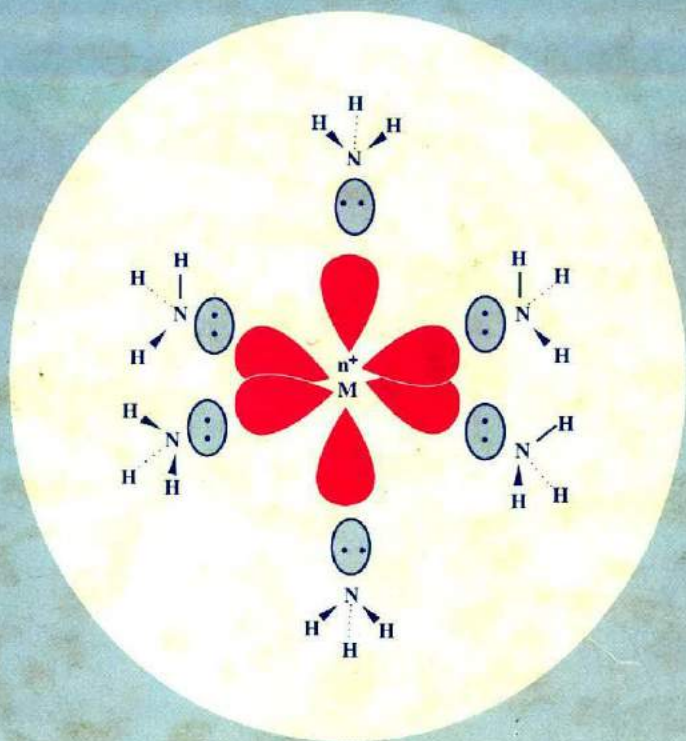


INTRODUCTION TO
MODERN
INORGANIC CHEMISTRY



S. Z. HAIDER

INTRODUCTION TO
M O D E R N
INORGANIC CHEMISTRY

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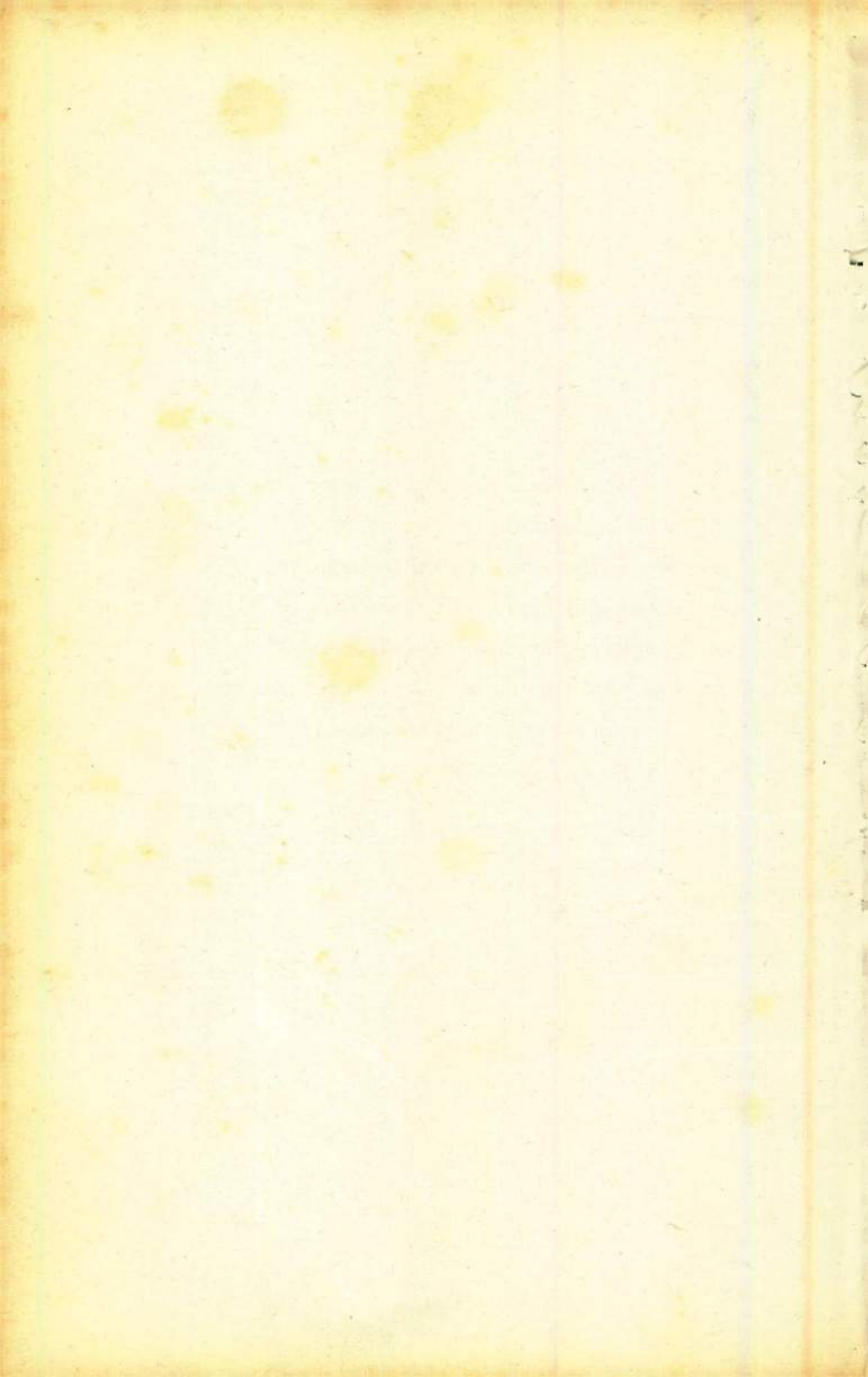
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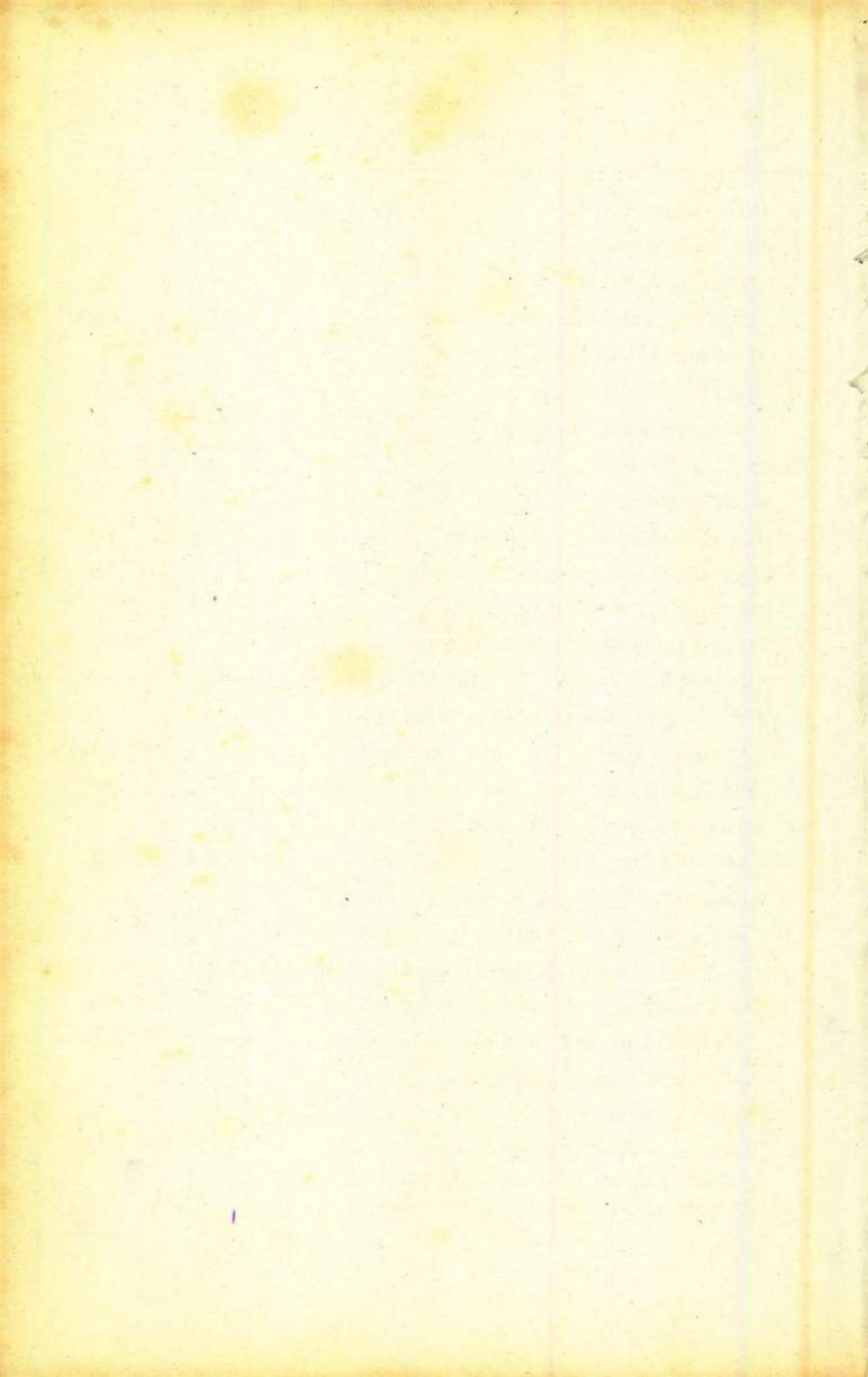
To

*All those devoted and inspiring teachers
who are striving to spread the light of
knowledge and imprint the qualities of
head and heart into the minds of our
younger generations for enlightenment and
the upliftment of the destiny of
Bangladesh in the new Millennium.*



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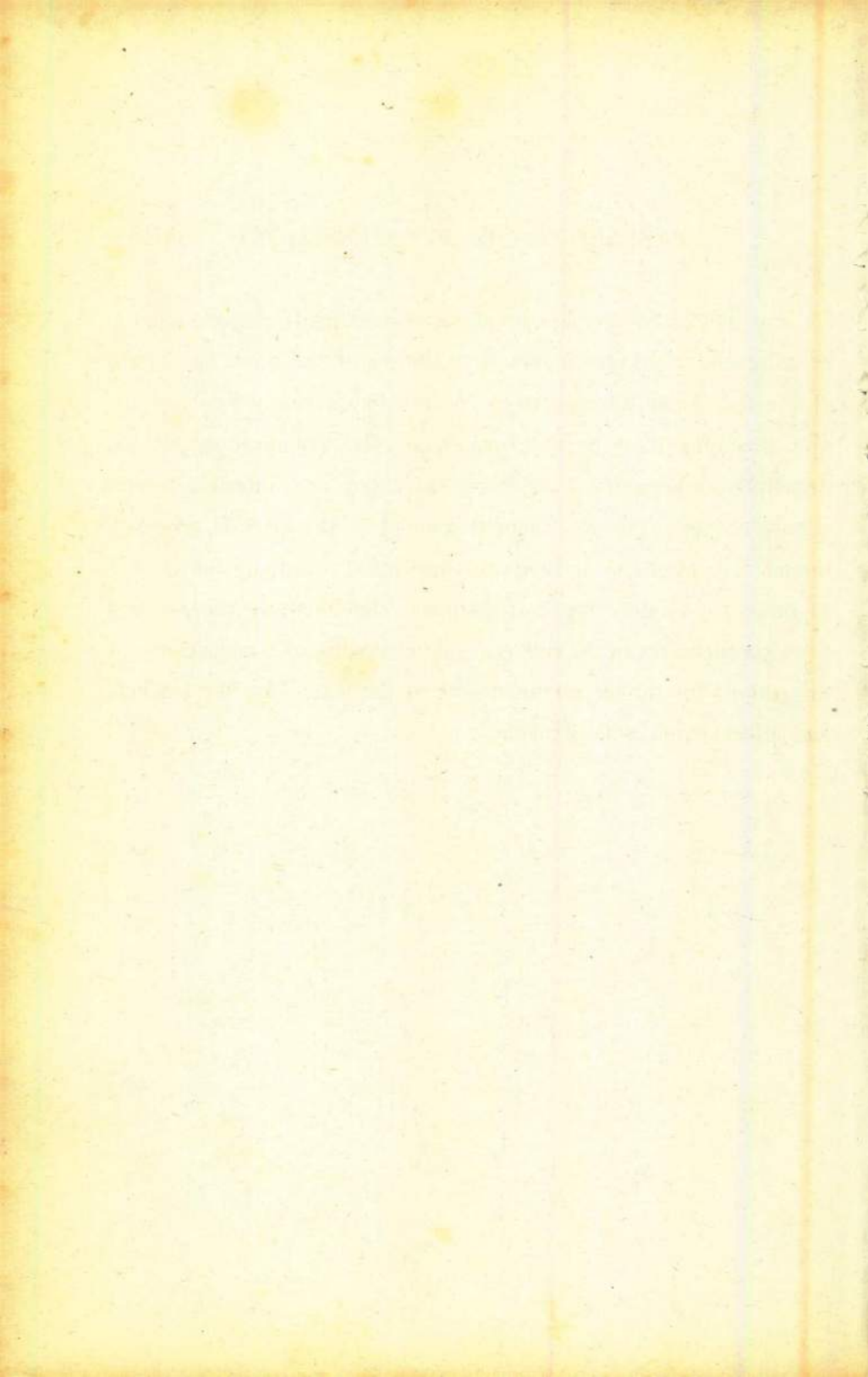
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PREFACE TO THE SECOND EDITION

The contents of the second edition have been slightly changed and the printing errors present in the first edition of the book have been eliminated. Some changes in the nomenclature and symbols of the new elements have been incorporated. The organisations of the descriptive chemistry have been modelled and interlaced with conceptual approach on structural principles. The book is primarily intended to meet the demands of the students studying for science graduations, engineering and medical supplementary professional conceptual courses of the colleges and universities of Bangladesh.

Suggetions for further improvements of the texts from the teachers and students are cordially invited.



PREFACE TO THE FIRST EDITION

This book has been published as a result of the pressing demands both of the students and the teachers for a modern text book in inorganic chemistry in a style which is comprehensible to the concerned community according to the local requirements of studies and of examinations. The book deals with the basic concepts in inorganic chemistry normally required for students of degree courses but also covers to a great extent the introductory materials for the honours and post graduate courses of the universities of Bangladesh. However, the students are advised to supplement their studies for extended knowledge from foreign advanced books and journals.

In the present text the descriptive materials have been reduced to the minimum and emphasis has been given to conceptual approach of inorganic chemistry so as to create critical thinking and the development of the spirit of enquiry in the minds of the students. These factors are essential for the acquisition of higher studies and specialized knowledge for useful practical applications of chemical principles.

The structures of matter at the molecular level which is the basis of the study of chemistry has been introduced as a logical sequence of events leading to the contemporary view points in respect of structural chemistry involving minimum but precise use of mathematics. A concise description of the survey of the elements according to the Periodic Table based primarily on electronic configurations of elements and some of their important compounds has been included to indicate the practical significance and importance of the study of inorganic chemistry. The book shall be helpful for an introductory conceptual and practical courses for both the students of medicine and engineering.

I take the opportunity to mention that I have derived great help from a large number of text books, reference books and journals published in the U. S. A., the U. K. and other countries. I particularly mention the various issues of the Journal of Chemical Education and Education in Chemistry.

I am grateful to my colleagues and teachers of various educational institutions for their encouragement to get this book published in a new modified form to cover introductory syllabuses for degree, honours and post-graduate courses in easy English generally followed by the students of science.

It is a great pleasure to acknowledge the efforts of Mr. S. M. Haider of Friends International, for undertaking the responsibility of publishing the book. I also express my thanks to Mr. A. K. M. Abdul Hai of Asiatic Press, Dhaka for arranging the printing of the book. Thanks are due to M. Yousuf Ali Khan for taking all the troubles of computer compose for the text. and some of the figures. Thanks are also due to my wife Syeda Saleha Khatoon who helped me in organising the materials and admirably endured the vexations in course of writing of this book.

It is next to impossible to produce a completely error-free book locally and some errors might have crept in the form of printers devil. I express my gratitude to Late Dr. Syed Jamal Quader, formerly Head of the Analytical Research Division, BCSIR, Dhaka for making painfully a list of errors of the original text. The corrections have been incorporated in the present book. The author shall be obliged to all those who would kindly communicate the information about the errors of printing or of statement of facts and figures to help rectify the same in future editions.

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April 1994

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