

**THE ELEMENTS OF HEAT AND OF NON-  
METALLIC CHEMISTRY: ESPECIALLY  
DESIGNED FOR CANDIDATES FOR THE  
MATRICULATION PASS EXAMINATION  
OF THE UNIVERSITY OF LONDON**

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The Elements of Heat and of Non-Metallic Chemistry: Especially Designed for Candidates for the Matriculation Pass Examination of the University of London by Frederick Guthrie

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**FREDERICK GUTHRIE**

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THE UNIVERSITY OF LONDON.

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## P R E F A C E.

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THIS little treatise is intended for the use of Candidates for the Matriculation Pass Examination of the University of London. It is believed to contain all (and but little more than all) that is required for the chemical branch of that examination.

On page ix will be found a list of the subjects in this branch, a knowledge of which is demanded by the University. Attached to each is given the number of page and paragraph where the subject is discussed. It will be seen that the order of the subjects required for the examination has been adhered to as strictly as possible.

There is in each Chapter about sufficient material for a lesson. Those to whom the subject is entirely new and who have not the advantage of receiving oral instruction, should not attempt to understand everything on the first reading. They should read the book carefully, but rapidly, once or twice, so as to gain a general idea of the nature of the subject. After being laid aside for a time, the book should be taken up again and studied so as not to leave a single point in obscurity.

The considerable changes which have recently been introduced into the views regarding the composition of many bodies, have received careful consideration. The combining weights or equivalents of the elements here given are those almost universally

employed in this country. The chemical names given to the various compounds are those which will be found to be at present the most useful to the generality of students. All controversial matter has been avoided.

On page 203 will be found a number of questions, many of which have been given at the Matriculation Pass Examination. Attached to each question is a reference to the paragraph where the subject is considered. The student should be able to answer all these questions.

Although the book has the special aim mentioned, it is hoped that it may serve as a sound introduction to further studies.

London,  
September 1868.



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