

ESSENTIALS OF “O” LEVEL FUNCTIONAL CHEMISTRY

[PRACTICALS & PROJECTS]

NAME:

SCHOOL:

CLASS: STREAM:

YEAR:

By SSEFF

[Hotline:+256776958643/+256754958643](tel:+256776958643)

©2023 SSEFF. All rights reserved.

No part of this book may be stored, reproduced, transmitted or retrieved in any retrieval machine without prior written permission from the author.

ACKNOWLEDGEMENTS

I wish to express my sincere gratitude to the following personalities whose tireless direct or indirect support has contributed much towards the completion of this practical manual.

1. Mr.Ssenyondo Richard-International independent consultant in chemistry and biology.
2. Dr. Kayima Festo – Lecturer Chemistry teaching methods Makerere University.
3. Mr.Kyagulanyi Andrew-Senior chemistry teacher and director Mityana standard secondary school.

DEDICATION

I dedicate this work to my parents Mr. John Musisi and late Ms. Minisfa Nabitalo for having brought me into this world if it was not them this work couldn't be seen and their parental and financial support that nurtured such an endowed mind which enabled me to edify the world in conjunction with God's mercy.

This work is also dedicated to Mr. Kyagulanyi Andrew for his unforgettable parental and financial assistance that enabled me to complete my advanced level very well and joined Makerere University. May God reward you indefinitely.

FOREWORD

“Essentials of ‘O’ level Functional Chemistry-Practicals & Projects” covers the entire scope of chemistry paper two as per specification of UNEB and NCDC. It consists of direct to the point notes, projects and a variety of experiments to enhance acquisition of practical skills among students regardless of their future careers. The numerous experiments in this manuscript have been designed in such a way that minimum chemical reagents are required for economical purposes yet the quality has been maintained superb.

It satisfactorily meets the demands of students going through competency based curriculum (CBC) at ordinary level in preparation for their excellence in Uganda Certificate for Lower Secondary Education (UCLSE) chemistry practical examination.

Proper utilization of this book will enable the students to find chemistry practical paper 2 easier and friendly thus academic excellence. Students are advised to utilize all their senses like feel, touch, smell, sight and hearing while carrying out these experiments so as to ensure that correct observations are made.

Teachers should provide students with the necessary chemical reagents and other requirements in order to navigate through all the experiments and projects in this book.

Table of Contents

1. Acknowledgement	ii
2. Deduction	iii
3. Foreword	iv
4. Chemistry as a science	1
5. Planning an investigation	11
6. Introductory experiments	12
7. Experiments on mixtures	35
8. Experiments on determination on volumetric analysis	45
9. Experiments on qualitative analysis	89
10. Chemical kinetics	103
11. Chemical energetics	114
12. Experiments on solubility	136
13. A projects	151