SENIOR SECONDARY CHEMISTRY WORKBOOK THREE

J.O. OKEKE

8 Sc (Hons) chem 83 P. G. D. E. 87 IU N.

Published in Nigeria by SONOJO NIG. LTD.

ISBN - 897 - 434219 - 5 - 8

Computer Typeset in Word Perfect 5.1

By CHIZO PRESS, ENUGU

Copyright © SONOJO LTD. 1999.

All rights reserved. No part of this publication should be reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the permission of the copyright owner.

Printed in Nigeria by CIDJAP PRESS Enugu

TABLE OF CONTENTS

Ζ,

SECOND TERM

CHAPTER I

| W.F. | Wk 6 | Wk 5 | | | | Wk 4 | | Wk 3 | | Wk 2 | Wk 1 | |
|---|---|--|-----------|--|---|---|----------------------------|---|--------------------------------------|---|---|--|
| Group 2 elements, Extraction of calcium, physical and Chemical properties of calcium, test for Ca ²⁺ , use of Calcium and calcium compounds. | Industrial preparation, properties and uses of sodium Hydrogen trioxocarbonate (IV) | Physical and chemical properties of metals. Extraction Of a group one metal and compound of sodium and Potassium that is group 1 elements. | CHAPTER 2 | Series, Nuclear stability and uses radio isotopes. Characteristics of X-rays. | Energy for power and nuclear equations, Radioactive decay | Atomic pile, Atomic bomb and hydrogen bomb, Nuclear | Nuclear fission and fusion | Nuclear energy, artificial transmutation, binding energy, | Radiations. Detectors of radiations. | Radioactive disintegration by alpha, Beta and Gamma | Radioactivity and characteristics of A, B and Gamma rays. | |

19 -

CHAPTER 2

Wk 8

Group 3 elements, extraction of Al, physical and Chemical properties of Al. Test for Al³⁺. Uses of Aluminum and aluminium compounds.

Wk 9

Group 4 elements, extraction of Tin, uses of Tin, Physical and chemical properties of Lead. Test for Pb²⁺

Compounds of Lead and Tin and uses.

Wk 10

Transitional elements (3 d elements)

Physical and chemical properties includes

Such chemical properties includes

- (i) Variable oxidation states
- (ii) Colour of metals ions
- (iii) Catalytic activity
- (iv) Complex formation of ions

THIRD TERM

CHAPTER 1

42 - 45

Wk 8

| Wk 2 | Wk 1 |
|---|---|
| Fats and oils, I.U.P.A.C names, preparation and propert | Alkanoic acids; physical and chemical properties. Use |
| n and properties, | operties. Uses. |

Hydrogenation, saponification, uses and test for fats and oils

Wk 3 detergents; soap and soap-less detergents

Advantages and disadvantages of soap-less detergent

WK 4 Alkanals and alkanones, preparations, physical and Chemical properties. Test to distinguish alkanals and Alkanones.

Wk 5 Carbohydrates, classification, monosaccharides, glucose

preparations, properties fructose disaccharide, sucrose and maltose, polysaccharides, cellulose.

Wk 6 Amides, physical and chemical properties. Carbamides, Amines, properties and uses.

CHAPTER 3

51 - 62

Amino acids, peptides, proteins, occurrence, structure, shape And properties. Denaturation and hydrolysis. Test for protein Polymers, natural and synthetic, thermoplastic and thermoset. Desirable properties. Rubber, natural synthetic.

Wk7

Intensive qualitative and volumetric analysis of salts and solutions
Intensive qualitative and volumetric analysis of salts and solutions

Published in Nigeria by SONOJO NIG. LTD.

ISBN-897-434219-5-8

Printed in Nigeria by CIDJAP PRESS Enugu