Contradiction to Neutralization Reactions

Manoj V. Gokhale

Mumbai University

ABSTRACT

This article contradicts Neutralization reactions by considering the real-life examples of the three most common Neutralization Reactions

Keywords: neutralization reactions, gases, unbalanced equations, contradiction.

Classification: LCC Code:QD476

Language: English

Great Britain Journals Press

LJP Copyright ID: 925625
Print ISSN: 2631-8490
Online ISSN: 2631-8504

London Journal of Research in Science: Natural & Formal

Volume 24 | Issue 11 | Compilation 1.0

Contradiction to Neutralization Reactions

Manoj V. Gokhale

ABSTRACT

This article contradicts Neutralization reactions by considering the real-life examples of the three most common Neutralization Reactions.

Keywords: neutralization reactions, gases, unbalanced equations, contradiction.

Author: Electronics Department, Victoria Jubilee Technical Institute, Mumbai, 400098, India. (Mumbai University).

I. INTRODUCTION

Neutralization reactions are defined as "when an acid reacts with an alkali it results in Salt and Water" today. This research article contradicts the Neutralization equations by stating that the result of the reaction of an acid with an alkali not only results in salt and water but also gas. So the general Neutralization reaction is not.

$$\text{Acid} + \text{Akali} \rightarrow \text{Salt} + \text{Water}$$

But in the corrected form it should be

$$\text{Acid} + \text{Akali} \rightarrow \text{Salt} + \text{Water} + \text{Gas}$$

And this is a contradiction to the current Neutralization reactions.

II. MAIN METHODS, RESULTS, AND DISCUSSION

Let us consider the three most common Neutralization reactions that are commonly encountered today.

$$2NaOH + H_2SO_4 \rightarrow Na_2SO_4 + 2H_2O \quad (1)$$

$$HCL + NAOH \rightarrow NACL + H_2O \quad (2)$$

$$HNO_3 + KOH \rightarrow KNO_3 + H_2O \quad (3)$$

The first reaction whereby Sodium Hydroxide reacts with Sulphuric acid results in Sodium Sulphate and water. This reaction also releases Sulphur dioxide gas. The second reaction whereby Hydrochloric acid reacts with Sodium Hydroxide results in Sodium Chloride and water. This reaction also releases Chlorine gas The third reaction whereby Nitric acid reacts with Potassium hydroxide results in Potassium nitrate and water. This reaction also releases Nitrous Oxide gas.

As we see the above reactions will change with Sulphur dioxide, Chlorine, and Nitrous Oxide gases on the right side of the equations (1), (2), and (3) respectively, thereby contradicting Neutralization reactions.

From the above discussion, we note that a Neutralization reaction whereby when an acid reacts with an alkali it results not just in Salt and water but also in a gas which is unaccounted in the present three neutralization reactions. Hence Neutralization reactions are contradicted as the reactions need to be re-balanced.

London Journal of Research in Science: Natural & Formal

III. CONCLUSION

The Neutralization reactions are contradicted.

Acknowledgement
None.

REFERENCES
None.