

A REVIEW PAPER ON ACIDS AND BASES

Dr. S.R. Ali*

*Professor,

Department of Civil Engineering, Faculty of Engineering,
Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, INDIA

Email id: drsr.ali.engineering@tmu.ac.in

DOI: **10.5958/2249-7137.2021.02650.1**

ABSTRACT

The theory of acids and bases, like many other chemical theories, has undergone numerous changes in recent times. acids are sour in taste and change the color of blue litmus to red, whereas, bases are bitter and change the color of the red litmus to blue. Litmus is a natural indicator; turmeric is another such indicator. Acid-base indicators can be used to distinguish between an acid and a base. The universal indicator shows different colours at different concentrations of hydrogen ions in a solution. A scale for measuring hydrogen ion concentration in a solution, called pH scale has been developed. The p in pH stands for 'potenz' in German, meaning power. On the pH scale we can measure pH generally from 0 (very acidic) to 14 (very alkaline). pH should be thought of simply as a number which indicates the acidic or basic nature of a solution. Higher the hydronium ion concentration, lower is the pH value.

KEYWORDS: Acids, Bases, Salts, Hydrogen Concentration, pH Value.

REFERENCES

1. H. E. Corey, "Stewart and beyond: New models of acid-base balance," *Kidney Int.*, 2003, doi: 10.1046/j.1523-1755.2003.00177.x.
 2. D. Gomez-Arbelaiz et al., "Acid-base safety during the course of a very low-calorie-ketogenic diet," *Endocrine*, 2017, doi: 10.1007/s12020-017-1405-3.
 3. G. J. Casimir, N. Lefèvre, F. Corazza, J. Duchateau, and M. Chamekh, "The acid-base balance and gender in inflammation: A mini-review," *Frontiers in Immunology*. 2018, doi: 10.3389/fimmu.2018.00475.
 4. G. Almeida et al., "Role of Acid-Base Equilibria in the Size, Shape, and Phase Control of Cesium Lead Bromide Nanocrystals," *ACS Nano*, 2018, doi: 10.1021/acsnano.7b08357.
 5. J. M. Prieto De Paula, S. Franco Hidalgo, E. Mayor Toranzo, J. Palomino Doza, and J. F. Prieto De Paula, "Acid-base balance disorders," *Dialysis y Trasplante*. 2012, doi: 10.1016/j.dialis.2011.06.004.
 6. M. Al-Jaghbeer and J. A. Kellum, "Acid-base disturbances in intensive care patients: Etiology, pathophysiology and treatment," *Nephrology Dialysis Transplantation*. 2015, doi: 10.1093/ndt/gfu289.
-

7. C. De Caro Carella and H. A. de Morais, "Compensation for Acid-Base Disorders," *Veterinary Clinics of North America - Small Animal Practice*. 2017, doi: 10.1016/j.cvsm.2016.11.003.
8. W. Muir, "Effect of Intravenously Administered Crystalloid Solutions on Acid-Base Balance in Domestic Animals," *Journal of Veterinary Internal Medicine*. 2017, doi: 10.1111/jvim.14803.
9. L. Lee Hamm, N. Nakhoul, and K. S. Hering-Smith, "Acid-base homeostasis," *Clin. J. Am. Soc. Nephrol.*, 2015, doi: 10.2215/CJN.07400715.
10. B. Scheiner et al., "Acid-base disorders in liver disease," *Journal of Hepatology*. 2017, doi: 10.1016/j.jhep.2017.06.023.