IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 10, March 2025
Impact Factor: 7.67

Extraction and Investigating Acidity of Fruit Juices and Vegetables Using Titration

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Abstract: *This study aimed to extract and investigate the acidity of various fruit juices and vegetables using titration. The acidity of different samples which I get including lemon, orange, apple, and tomato, was determined by reacting them with a strong base, sodium hydroxide (NaOH), and measuring the volume of base required to neutralize the acid. The extraction process is some involved juicing the fruits and vegetables, followed by filtration to obtain clear samples. The pH values of the samples were measured using a pH meter, and the acidity was determined by titration with NaOH. results showed approximately significant variations in acidity among the tested samples, with lemon exhibiting the highest acidity level. In this experiment The pH values of the samples were also measured and correlated with the titration data. . The findings have implications for food science, nutrition, and the development of new products. Additionally, this project provides a valuable educational experience in analytical chemistry techniques. Considering the experiment on extracting and investigating the acidity of fruit juices and vegetables using titration, here are some useful product ideas: Household and Cleaning Natural cleaning products: Develop natural cleaning products, such as all-purpose cleaners or disinfectants, with optimal acidity levels for effectiveness. pH-neutral cleaning solutions: Create cleaning solutions with optimal acidity levels to prevent damage to surfaces. Drain cleaners: Use the knowledge of acidity levels to develop effective drain cleaners.*

Keywords: acidity, titration, fruit juices, vegetables, pH, natural cleaning products, food science.

DOI: 10.48175/IJARSCT-24754