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A Novel Acid-Base Titration Designed with Consumer Products: An
Experiment for Introductory and General Chemistry Laboratories

Yang, Shui-Ping

Abstract

In this article, a novel acid–base titration designed using consumer products is presented as an experiment for quantitative analysis and is also suitable for introductory and general chemistry laboratories. 100% grape juice is used as an acid–base indicator and a Bayer aspirin tablet is a good primary standard acid. Small and medium-sized syringes are used as the pipet and buret, respectively. There is no significant difference in the accuracy and precision of the acid content of the three acidic samples between the novel and regular acid–base titrations as determined by the instructor, and there is almost no significant difference in the accuracy and precision of the acid content in these samples between values of the acid content obtained by the instructor and the students when using this novel acid–base titration.

Key words : Laboratories and Demonstrations; General chemistry;
Introductory chemistry; Acid-base titration; And consumer
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