An Assay for the Estimation of Organic Content in Unknown Samples

William Schneider
Illinois Wesleyan University

William Jaeckle, Faculty Advisor
Illinois Wesleyan University

Follow this and additional works at: https://digitalcommons.iwu.edu/jwprc

https://digitalcommons.iwu.edu/jwprc/2000/posters/22

This is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.
©Copyright is owned by the author of this document.
Potassium dichromate, in an acidic solution will oxidize organic material. The reduction to chromate is associated with a color change, which can be measured as a change in absorbence using a spectrophotometer. The degree of change is linearly related to the total energy contained in a sample and this information can be used to predict the energy content of unknown samples. However, the slopes of these relationships are not identical for various compounds, and are significantly different for proteins and carbohydrates. It is hypothesized that these variations are due to differences in the reaction kinetics and that these differences can be used to predict the chemical composition of mixtures of proteins and carbohydrates.