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An Assay for the Estimation of Organic Content in Unknown Samples

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Poster Presentation 45

**AN ASSAY FOR THE ESTIMATION OF ORGANIC CONTENT
IN UNKNOWN SAMPLES**

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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 absorbance 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.