

COMPARING THE CRUDE QUERCETIN CONTENT OF DIFFERENT *Allium sp.*

By SPECTROPHOTOMETRY

An Undergraduate Thesis
Presented To
The Division of Physical Sciences and Mathematics
College of Arts and Sciences
University of the Philippines in the Visayas
Miag-ao, Iloilo

In Partial Fulfillment of the
Requirement for the Degree of
Bachelor of Science in Chemistry

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April 2007

Abstract

Quercetin from two *Allium* sp. was extracted sequentially with solvents of varying degrees of polarity. The crude quercetin was subjected to chemical tests and the concentration determined by using Shimadzu mini UV-Vis 1240 Spectrophotometer.

Results of the study showed that the extraction procedure used was effective in extracting quercetin. This was verified by the identical spectrum obtained with quercetin from the standard (Quercetin Complex) with the IR spectrum of quercetin obtained from the literature. The crude quercetin was positive to the both chemical tests, namely Baeyer's and Ferric chloride tests, subjected to it. Quercetin content in red onions was obtained with mean concentrations of 10.60 mg/kg at 362nm and 7.429 mg/kg at 370nm. Quercetin content in garlic was obtained with mean concentrations of 9.692 mg/kg at 362nm and 5.689 mg/kg at 370nm. The quercetin concentration measured at 370nm was quercetin another wavelength at 362nm measured the concentration of quercetin as flavonols. The result of One-way ANOVA at 0.05 α showed that there is a significant difference in the quercetin content between red onions and garlic.