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Analysis of Crocin and Safranal Content in *Crocus Sativus* L. Samples from Iran, Spain and Morocco

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Crocus sativus L., commonly known as saffron, has a geographically wide habitat, ranging from the Mediterranean to south Asia. Saffron is used in foods and in perfumes as well as dye and medicine and as such is of commercial importance. Although more than 150 compounds were characterized from saffron, crocin, picrocrocin, and safranal are the most abundant compounds. The quality of saffron samples is determined by the ratio of these three components.

Saffron has been grown in eight contiguous regions of Morocco, including Taliouine, since the 10th Century. High Performance Liquid Chromatography with Diode-Array Detection (HPLC-DAD) was used to determine the relative content of crocin, picrocrocin, and safranal from 9 Moroccan samples, and a sample each from Spain, and Iran. Three samples had relatively minor amounts of these compounds. Details of the HPLC-DAD analysis will be presented.

This project contributes to Internationalization of Undergraduate Research at Crookston wherein University of Minnesota Crookston students work on collaborative projects with visiting scientists. Such exchanges lead not only to intellectual development but also afford opportunities for cultural exchanges.