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The use of LC/UV/MS method for qualitative and quantitative analysis of phytochemicals in roselle (*Hibiscus sabdariffa* L.) leaves

Kit L Chin¹ and Yadong Qi¹, Adolfo Pertuz², Julia Coppin², Qing-Li Wu² and James Simon²¹Southern University Agricultural Research and Extension Center, USA²Rutgers University, USA

The calyces of roselle (*Hibiscus sabdariffa* L.) have been extensively used around the world to prepare beverage, tea and other products because of their nutritional and medicinal properties. A significant number of papers have been published to identify the chemical constituents and their antioxidant activities. While the leaves have been consumed widely around the world and have been reported to show various biological activities such as neuroprotective and anti-diabetic, there are only a few studies evaluating the phytochemistry of the roselle leaves. In this study, the leaves of three accessions were chemically profiled using LC/UV/MS which led to the identification and quantification of polyphenols. By analyzing the UV/MS data and comparing with authenticated standards, a total of 12 compounds were identified including 5-(hydroxymethyl) furfural, chlorogenic acid and its isomers, quercetin, kaempferol, delphinidin sambubioside, cyanidin sambubioside, glucosides and rutinoids. The profiles of all samples used in this study were similar. The identified compounds have potential for therapeutic uses to satisfy unmet medical needs.

Biography

Kit L Chin has received his PhD degree in Horticulture from Louisiana State University. He is the Project Director of the research team who provides leadership in conducting world-wide roselle accession evaluation for small farm production in Louisiana, mentoring graduate students in Roselle research, assessing the bioactivity of the roselle calyces and developing products for niche market. He has published several papers on the Phytochemistry of the Roselle Plant. He has been providing consulting services to various small farmers in Roselle Production and Product Development.

kit_chin@suagcenter.com

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