

Antioxidant Activity of Herbs, Spices, Vegetables and Dietary Supplements

Presenter Princess Meonna Williams, Biology major

Mentored by Dr. Victoria Geisler

There has been growing interest in the health benefits of food containing antioxidants. In this study, 1,1-diphenyl-2-picrylhydrazyl (DPPH) was utilized in the determination of IC₅₀ (the concentration at which 50 % inhibition of free radical activity is observed) values for extracts of herbs, spices, vegetables and dietary supplements. DPPH is a stable free radical that displays a purple color. Once DPPH interacts with an antioxidant that can donate an electron, the free radical will be reduced and the color will change from purple to yellow. The IC₅₀ values were determined for a variety of samples that include rosemary, jalapeno, turmeric, kale, matcha green tea, ginger root, dandelion root, ginseng root, cocoa powder, thyme, cinnamon, broccoli, cumin, parsley and dietary supplements. The results of this investigation will be presented.