A short review on the stability of chlorophylls and metallo-chlorophyll complexes in fruits and vegetables

ABSTRACT

Chlorophylls are the primary photosynthetic pigment responsible for the green colour in fruits and vegetables and contributed as an antioxidant. Sensitivity of chlorophylls to processing conditions such as light, heat, pH changes, oxygen and chemicals affected the bright green colour and its antioxidant activity which lead to the formation of its derivatives; pheophytins and pyro pheophytins. Therefore, the formation of metal complexes of chlorophyll derivatives has been suggested to exhibit green colour similar to native chlorophylls but with more stable processing conditions. This article aims to review the current research on the stabilization process of chlorophylls using divalent cations such as zinc or copper in the formation of metallochlorophyll complexes in fruits and vegetables