

Friend or Foe: the Organic Chemistry of Antioxidants as Food Preservatives

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Upon GC-MS analysis of chewing gum, the presence of two common synthetic antioxidants, BHT and BHA, can easily be detected by strong signals on the resulting spectra. Antioxidants such as BHT and BHA are incorporated into many food products to counteract radical reactions of food spoilage; however, public concern has been generated over the safety associated by using specific antioxidants. The degradation of lipid and protein constituents is dependent upon concentrations of radicals derived through interaction with oxygen. To improve upon the safety and efficacy of current preservation methods, common antioxidants as well as novel antioxidants need to be evaluated.