

Journal of Analytical Chemistry 2002 vol.57 N8, pages 730-732

Determination of fat-soluble antioxidants by galvanostatic coulometry using electrogenerated oxidants

Abdullin I., Turova E., Ziyatdinova G., Budnikov G.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

It was found that vitamin E reacts with electrogenerated chlorine and bromine, as well as with silver (I) and vanadium(V) in the ratio 1:1 to form α -tocopherylquinone. Vitamin A reacts with electrogenerated halogens in the ratio 1:3. Individual fat-soluble antioxidants were determined in model solutions at the milligram level with RSD between 1 and 4%. The bromine-scavenging antioxidant capacity of some vegetable oils and animal fats was evaluated.

<http://dx.doi.org/10.1023/A:1016882027634>
