

论文

CPA分光计算法同时测定多种维生素的研究

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摘要:

本文在矩阵法的基础上,研究了四组分紫外分光同时测定,采用CPA分光计算法对VB₁,VB₂,VB₆及烟酰胺混合组分同时定量,以BASIC语言编制计算程序,试样回收率在95~105%之间,均方根偏差为3.58%,为多种维生素同时测定提供简便、准确的方法。同时,对影响定量精度的测定误差与计算误差进行了较为详细的讨论。

关键词: 紫外分光光度法 维生素B₁,B₂,B₅ 烟酰胺

SIMULTANEOUS DETERMINATION OF MULTI-COMPONENT VITAMINS BY CPA SPECTROSCOPIC COMPUTING ANALYSIS

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Abstract:

The development of complex high nutrition foods, such as vitamin B complex, and pharmaceuticals demands simple, rapid and effective methods to determine the multi-component vitamins simultaneously. In this paper, based on the matrix method, an ultra-violet spectroscopic method was developed to determine the four components in VB complex. Using CPA spectroscopic computing method, VB₁, VB₂, VB₆ and niacinamide could be analyzed simultaneously. A BASIC computer program was developed. In this method, the recoveries of the vitamins were 95~105% and the standard deviation was 3.58%. Therefore, a new way was pointed out for the simultaneous analysis of multicomponent vitamins. Also included were the examination of the main factors that affect the precision of quantitation and errors in measurement and computation.

Keywords: Vitamin B₁, B₂, B₆ Niacinamide Ultra-violet spectrophotometry

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