

铜(II)催化PHA的褪色反应特性及应用

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摘要 本文研究了铜(II)催化抗坏血酸还原多卤代变色酸双偶氮胂类试剂(PHA)的褪色反应特性,讨论了试剂结构对褪色反应动力学特性的影响,探讨了反应机理。以三氯偶氮胂为代表,拟定了测定痕量铜(II)的新方法,其检出限为 3.06×10^{-12} g/mL,线性范围为0~28ng/10mL。用于生物材料中痕量铜(II)的测定,结果满意。

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The character of PHA decolorizing reaction with copper(II) catalysis and its application

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Abstract The decolorizing reaction character of polyhalogenated bisazo derivative of chromotropic acid containing-AsO₃H₂ (PHA) with ascorbic and by copper(II) catalysis has been investigated. The influence of reagent structure on decolorizing reaction kinetic character and the reaction mechanism have been discussed. The method for the determination of trace copper(II) by using trichloroarsenazo was studied. The detection limit is 3.06×10^{-12} g/mL and linear range is 0~28ng/10mL for copper(II). The method has been applied to the determination of trace copper in bio-material with satisfactory results.

Key words [COLORIMETRIC METHOD](#) [COPPER](#) [COLOUR REAGENTS](#) [CATALYTIC ANALYSIS](#) [KINETIC STUDY](#)

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