

金属离子对动力学反应的协同诱导效应及在多组分分析中的应用

王建华,何荣桓,周全法

烟台师范学院化学系;常州技术师范学院化工系

收稿日期 修回日期 网络版发布日期 接受日期

摘要 研究铁(II)和锑(III)对 $\text{Cr}_2\text{O}_7^{2-}-\text{I}^-$ 动力学反应体系的协同诱导效应,提出协同诱导系数的概念。将此系数引入前述停流FIA-动力学双组分同时测定方法中,有效地补偿了由于双组分间协同效应而引起的对吸光度加合性的偏离,同时线性测定范围亦显著扩大,从而为动力学体系中多组分的测定提供了一种有效的方法。测定了废水、合成样品及标准样品中铁和锑的含量,结果满意。

关键词 [分光光度法](#) [锑](#) [铁](#) [协同效应](#) [同时测定](#) [流动注射分析](#) [诱导效应](#) [重铬酸](#)

分类号 [0643](#)

The synergistic inductive effect of metal cations on kinetic reactions and its analytical applications to the simultaneous determination of multicomponents

WANG JIANHUA, HE RONGHUAN, ZHOU QUANFA

Abstract The synergistic inductive effect of iron(II) and antimony(III) upon the chromium(VI)-iodide kinetic reaction systems had been studied, and the concept of synergistic inductive coefficient was defined. The deviations from additivity of absorbance within certain concentration ranges in previous procedures can be compensated effectively, by introducing the synergistic coefficient into the simultaneous determination of a binary mixture with stopped flow-FIA method, and the linear concentration ranges have also been enlarged remarkably. Iron and antimony contents in wastewater, a simulated sample and a zinc standard had been determined, the results are satisfactory.

Key words [SPECTROPHOTOMETRY](#) [STIBIUM](#) [IRON](#) [SYNERGISTIC EFFECT](#) [SIMULTANEOUS DETERMINATIONS](#) [FLOW INJECTION ANALYSIS](#) [INDUCTIVE EFFECT](#) [DICHROMIC ACID](#)

DOI:

通讯作者

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(374KB\)](#)

▶ [HTML全文\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“分光光度法”的相关文章](#)

▶ 本文作者相关文章

· [王建华](#)

· [何荣桓](#)

· [周全法](#)