

一种新的测定锶的高选择性光工法的研究:用新显色剂DBC-偶氮氯磷测定合金及海水中的锶
赵也平,任英

中国科学院长春应用化学研究所

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摘要 研究了新型显色剂二溴-氯偶氮氯磷与锶的显色反应及锶的分析,发现锶能与这一显色剂在酸性条件下生成一种稳定的蓝紫色配合物,在丙酮、EATA和硫酸钠存在下,采用双波长分光光度法可有效地解决钙,钡,镁,铁等三十余种元素的干扰,用本方法测定了海水、氧化镁试剂和硅铁合金中的锶,取得满意结果.

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Studies on determination of strontium by a new highly selective spectrophotometry: Determination of strontium in alloy and sea water with chlorophosphonazo-DBC

ZHAO YEPING,REN YING

Abstract In acidic solution, a stable purple complex of strontium was formed with a new photometric reagent, 2-(4'-chloro-2'-phosphonazo)-7-(2',6'-dibromo-4'-chlorophenylazo)-1,8-di hydroxy-3,6-naphthalenedisulfonic acid (DBC-CPA). This complex exhibits absorption max. at 630 nm with apparent molar absorptivity of $6.3 \times 10^4 \text{ L mol}^{-1} \text{ cm}^{-1}$. The Sr/DBC-CPA ratio of this complex is 1:2. In the presence of acetone, Na₂SO₄, and EDTA and with the absorbance determine by the dual-wavelength, there is no interference by the presence of large amts. of barium, calcium, iron, magnesium, and a no. of other ions. A method has been developed for the determination of strontium in seawater, magnesium oxide, and silicon-iron alloy with satisfactory results.

Key words [SPECTROPHOTOMETRY](#) [ORGANO BROMINE COMPOUNDS](#) [STRONTIUM](#) [SEA WATER](#) [COLOR REACTION](#) [ORGANO CHLORIDE COMPOUNDS](#) [MAGNESIUM OXIDE](#) [CHLOROPHOSPHONAZO](#) [SILICON CONTAINING ALLOYS](#) [IRON ALLOYS](#)

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