

论文摘要

中国有色金属学报

ZHONGGUO YOUSEJINSHUXUEBAO XUEBAO

第17卷 第6期 (总第99期) 2007年6月

 [PDF全文下载]

文章编号: 1004-0609(2007)06-1014-05

盐酸介质中异戊基苯并噻唑亚砜萃取Pd(II)的机理

李耀威¹, 古国榜²

(1. 华南师范大学 化学与环境学院, 广州 510006;
2. 华南理工大学 化学科学学院, 广州 510640)

摘要: 合成了异戊基苯并噻唑亚砜(ABS0), 研究了盐酸介质中ABS0萃取Pd(II)的机理。考察水相H⁺浓度和萃取剂浓度对钯萃取的影响, 采用斜率法、红外光谱和核磁共振H谱法确定了萃合物的组成及萃取平衡的机理。结果表明: 低酸度条件下, H⁺浓度对钯的分配比无影响, ABS0以中性配位萃取机理萃取Pd(II), 并通过苯并噻唑环上的氮原子与Pd(II)配位形成萃合物PdCl₂(ABS0)₂。

关键字: 钯; 异戊基苯并噻唑亚砜; 萃取

Mechanism of extraction of Pd(II) with iso-amyl benzothiazolyl sulfoxide from hydrochloric acid media

LI Yao-wei¹, GU Guo-bang²

(1. School of Chemistry and Environment, South China Normal University, Guangzhou 510006, China;
2. School of Chemistry Science, South China University of Technology, Guangzhou 510640, China)

Abstract: Iso-amyl benzothiazolyl sulfoxide (ABS0) was synthesized and the mechanism of extraction of Pd(II) with ABS0 from hydrochloric acid media was studied. The effects of H⁺ and extractant concentration on the extraction of Pd(II) were investigated. The composition of extracted complex and mechanism of extraction were determined by slope method, IR and H MNR spectra. The results show that the distribution ratio of Pd(II) is independent on H⁺ concentration and ABS0 acts as a neutral ligand coordinated with Pd(II) via thiazolyl N atom and forms PdCl₂(ABS0)₂ at low acidity.

Key words: palladium; iso-amyl benzothiazolyl sulfoxide; solvent extraction

地 址：湖南省长沙市岳麓山中南大学内 邮编： 410083

电 话： 0731-8876765, 8877197, 8830410 传真： 0731-8877197

电子邮箱： f-ysxb@mail.csu.edu.cn