

现代化工技术

优质偏苯三酸酐生产工艺

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摘要 开发了液相空气氧化法由偏三甲苯制备优质偏苯三酸酐的生产工艺。该工艺增加了脱水提浓柱使偏三甲苯氧化反应在最佳条件下进行, 通过使用工频电磁感应双向加热器和纳米过滤器, 减少了副反应和除去了粗偏苯三酸酐中不溶性杂质, 生产出了纯度大于99%的结晶型偏苯三酸酐。该工艺可降低产品单耗, 提高产品质量, 减少环境污染, 基本实现了清洁生产。

关键词 [偏苯三酸酐](#); [偏三甲苯](#); [单耗](#); [清洁生产](#)

分类号

Production technology of high-quality trimellitic anhydride

Abstract

A new production technology of high-quality trimellitic anhydride with the liquid-phase air-oxidation from [BF]1,2,4-[BFQ]trimethylbenzene was developed. A dehydration column evaporator was used in the process for guaranteeing an optimized experimental condition for 1,2,4-trimethylbenzene oxidation. A high quality crystalline trimellitic anhydride with more than 99% purity was obtained by the use of a new electromagnetic frequency inductively coupled bidirectional heater and a nano-filter in the process, resulting in the reduction of side reactions and elimination of insoluble impurities. The merits of low unit consumption, high quality product and less environmental pollution demonstrate its potential application to non-hazardous and environmental friendly production.

Key words [trimellitic anhydride](#); [1,2,4-trimethylbenzene](#); [unit consumption](#); [clean production](#)

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