年产 5000 吨聚丙烯工艺设计

摘　要

聚丙烯在世界生产占有很重要的地位，本次设计采用间歇式液相本体法对年产 5000 吨聚丙烯化工工艺进行设计。拟采用气体分离的方法对炼厂气进行分馏，设定年产量 5000 万吨聚丙烯，然后进行物料衡算、热量衡算和设备选型等过程，在本文设计中详细的计算出原料的用量 4800 吨丙烯、产品的产量 5000 吨聚丙烯。根据得出数据选择适合本工艺的各种设备，根据所选择的工艺设计出工艺流程图和设备图。通过对本工艺设计，可以对气体分馏和间歇式液相本体法工段有一个初步的认识和了解。

关键词：聚丙烯；气体分馏；间歇式液相本体法

Abstract

Polypropylene occupies a very important position in the world's production. This design uses the batch liquid phase bulk method to design an annual output of 5，000 tons of polypropylene chemical process. It is planned to use gas separation method to fractionate the refinery gas,set an annual output of 50 million tons of polypropylene,and then carry out the process of material balance,heat balance and equipment selection. 4,800 tons of propylene and 5,000 tons of polypropylene. According to the obtained data,select various equipment suitable for this process,and design a process flow chart and equipment diagram according to the selected process.Through the design of this process,we can have a preliminary understanding and understanding of the gas fractionation and batch liquid phase bulk method sections.

Key words： polypropylene;gas fractionation;batch liquid phase bulk method

目　录