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(54) Title: **BIOLOGICAL PRODUCTION OF ACETIC ACID FROM WASTE GASES**

(57) Abstract

A method and apparatus for converting waste gases from industrial processes such as oil refining, carbon black, coke, ammonia, and methanol production, into useful products is disclosed. The method includes introducing the waste gases into a bioreactor where they are fermented to various products, such as organic acids, alcohols H₂, SCP, and salts of organic acids by anaerobic bacteria within the bioreactor. These valuable end products are then recovered, separated and purified.