

ABSTRACT

A process for removing acetaldehyde efficiently and producing high-purity acetic acid stably is provided.

5 Methanol is allowed to continuously react with carbon monoxide in a carbonylation reactor 1 in the presence of a catalyst system; the reaction mixture is continuously fed to a flasher 2 to form a volatile phase (2A) containing acetic acid and methyl iodide; the volatile phase (2A)

10 is continuously fed to a splitter column 3 to form an overhead (3A) containing methyl iodide and acetaldehyde and a stream (3B) containing acetic acid; the volatile phase (2A) and/or the overhead (3A) is cooled by a first condenser C1, C3 at a predetermined cooling temperature;

15 and the noncondensed gaseous component is further cooled by a second condenser C2, C4 to form a concentrate having a lower temperature and a higher acetaldehyde concentration. Acetaldehyde is efficiently removed by distilling the concentrate having a high acetaldehyde concentration.