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(71) Applicant: HOECHST CELANESE CORPORATION [US/US]; Route 202-206, Somerville, NJ 08876 (US).

(72) Inventors: FISCHER, Darrell, Andrew; 9702 Rathbone, Houston, TX 77031 (US). KARNILAW, Michael, L.; 16311 Mill Point Drive, Houston, TX 77059 (US). KIDWELL, Kenneth, Paul; 1201 Enterprise Road #420, League City, TX 77573 (US). MEILCHEN, Melchior, Albert; Hölderlinstrasse 15, D-61462 Königstein (DE). SANTILLAN, Valerie; 600 East Medical Center Boulevard #1414, Webster, TX 77598 (US). SCATES, Mark, O.; 1304 Blueberry Lane, Friendswood, TX 77546 (US). TORRENCE, G., Paull; 301 South Morningside, Corpus Christi, TX 78404 (US). VOGEL, Richard, F., Jr.; 2021 Reef Drive, League City, TX 77573 (US). WARNER, R., Jay; 7402 Bourget, Corpus Christi, TX 78413 (US).

(74) Agents: SPIERING, M., Susan; Hoechst Celanese Corporation, 1901 Clarkwood Road, Corpus Christi, TX 78409 (US) et al.

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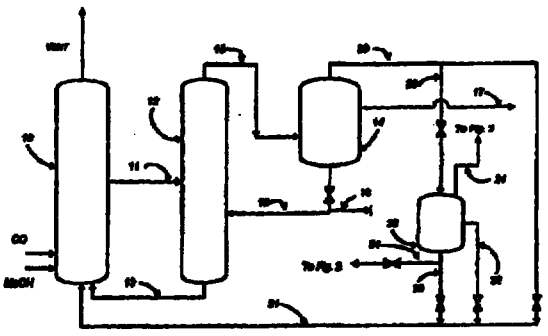
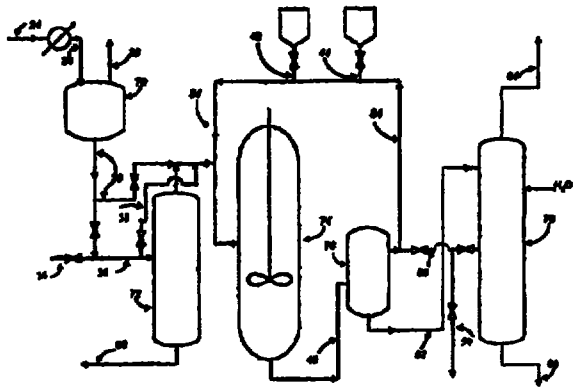
(54) Title: REMOVAL OF CARBONYL IMPURITIES FROM A CARBONYLATION PROCESS STREAM

(57) Abstract

A process to reduce carbonyl impurities in a carbonylation reaction for the production of acetic acid is described. The methyl iodide recycle stream which is directed to a carbonylation reactor for carbonylating methanol or methyl acetate to acetic acid, is treated to remove carbonyl impurities by reacting the methyl iodide stream formed in the reaction with an aqueous amino compound which reacts with the carbonyls to form water soluble nitrogenous derivatives, separating an organic methyl iodide phase from an aqueous derivative phase and distilling the methyl iodide phase to remove heavier impurities. The treatment of the methyl iodide recycle stream to the carbonylation reactor has been found to greatly reduce the carbonyls present in the acetic acid product. The formation of nitrile from the nitrogenous derivative during distillation may be minimized by adding water to the system.