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(54) Title: IN-SITU ANALYSIS OF METAL IONS IN VINYL ACETATE PRODUCTION

(57) Abstract: Ion chromatography may be used for measuring the concentration of metal ions in various streams of a vinyl acetate production process. For example, a method may comprise: reacting ethylene, oxygen, and acetic acid in the presence of a catalyst and optionally a catalyst promotor like sodium acetate and/or potassium acetate to yield a crude vinyl acetate stream; measuring a concentration of a metal ion of the crude vinyl acetate stream and/or a stream downstream thereof with an ion chromatograph, wherein the metal ion is selected from the group consisting of Group I metal ions, Group II metal ions, transition metal ions, and any combination thereof.

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