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(54) Title: METHOD AND APPARATUS FOR PRODUCTION OF ALCOHOLS

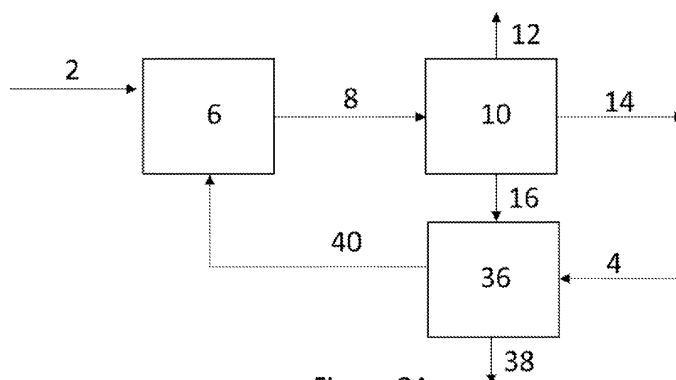


Figure 2A

(57) **Abstract:** A method for the production of at least one alcohol is provided. The method comprises providing a crude aldehyde stream comprising at least one aldehyde to at least one liquid phase hydrogenation reactor, and hydrogenating the at least one aldehyde in a liquid phase hydrogenation reaction to provide a crude alcohol stream comprising at least one alcohol; recycling a liquid recycle stream comprising the at least one alcohol to the at least one liquid hydrogenation reactor via a recycle cooler in which heat in the liquid recycle stream is recovered; providing the crude alcohol stream to a distillation column and performing distillation on the crude alcohol stream to obtain a purified alcohol stream including the at least one alcohol, and a heavy stream including the at least one alcohol; providing the heavy stream to a stripping column and contacting the heavy stream with a stripping gas comprising at least 20 mol% hydrogen to separate the heavy stream into a recycle stream including the at least one alcohol, and a waste stream; and returning at least a portion of the recycle stream to the at least one liquid phase hydrogenation reactor.

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