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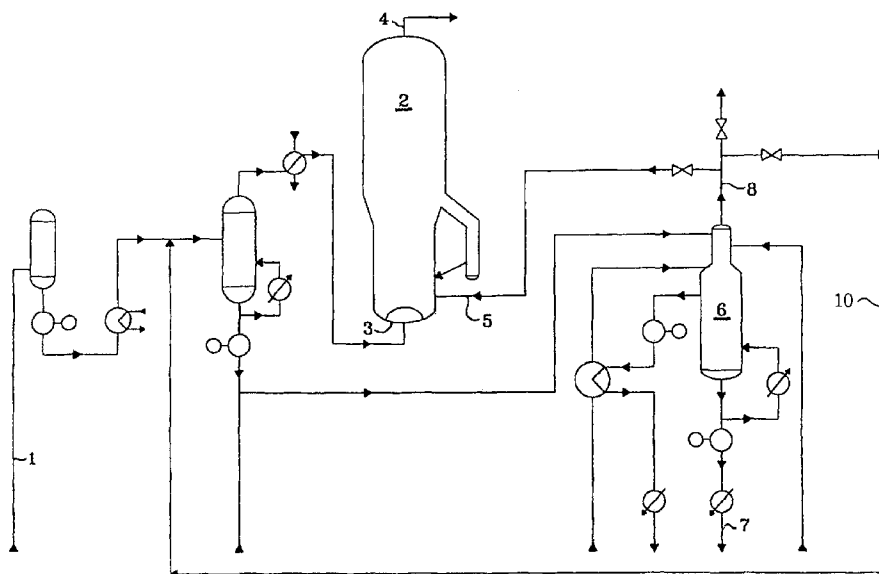
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(54) Title: DIRECT RETURN OF OXYGENATE RECYCLE STREAM IN OLEFIN PRODUCTION PROCESS



(57) Abstract: The invention is a process and the corresponding apparatus for producing light olefins from oxygenates in an OTO reactor (2) comprising sending an oxygenate feed stream through a feed stream distributor (3) into an OTO reactor, contacting the oxygenates with a catalyst to produce a mixture comprising light olefins, diolefins, unreacted oxygenate and other by-products; separating the unreacted oxygenate and diolefins from said light olefins and said by-products; and returning the unreacted oxygenate and diolefins to the OTO reactor. The unreacted oxygenate and diolefins are sent through at least one feed nozzle at port (13) into said reactor at a point separate from the oxygenate feed stream.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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