



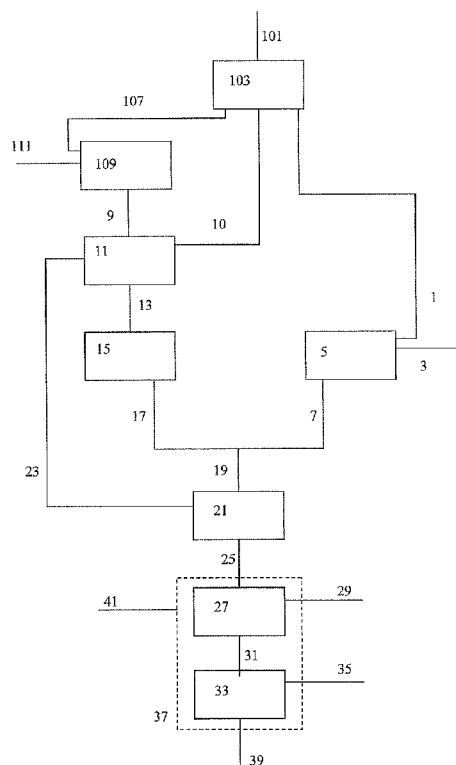
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 <i>C01B 3/22</i> (2006.01) <i>C07C 29/15</i> (2006.01)</p> | <p>(72) Inventors; and
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(54) Title: PROCESS FOR PRODUCING OLEFINS

Figure 1



(57) Abstract: The present invention provides a process for producing olefins, comprising: a. providing a feed comprising at least methane, ethane and carbon dioxide; b. separating the feed into at least a methane-comprising feed, an ethane-comprising feed and a carbon dioxide-comprising feed; c. providing at least part of the methane-comprising feed to a process for preparing synthesis gas to obtain a synthesis gas; d. cracking the ethane-comprising feed in a cracking zone under cracking conditions to obtain a cracking zone effluent comprising at least olefins and hydrogen; e. providing at least part of the carbon dioxide-comprising feed and at least part the synthesis gas obtained in step c) to an oxygenate synthesis zone and synthesising oxygenates; f. converting at least part of the oxygenates obtained in step (e) in an oxygenate-to-olefin zone to obtain an oxygenate-to-olefin comprising at least olefins and hydrogen; g. combining at least part of the cracking zone effluent and at least part of the OTO zone effluent to obtain a combined effluent; h. separating hydrogen from the combined effluent and providing at least part of the hydrogen to the oxygenate synthesis zone in step (e).



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