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(71) Applicant (for all designated States except US): **SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.** [NL/NL]; Carel van Bylandtlaan 30, NL-2596HR THE HAGUE (NL).

(71) Applicant (for US only): **SHELL OIL COMPANY** [US/US]; Shell Plaza 1, Houston, Texas 77252-2463 (US).

(72) Inventors: **KLOTH, Antonius, Gijsbertus, Johannes;** Wolfhaag 57, NL-6291NA Vaals (NL). **VAN WESTRENEN, Jeroen;** Grasweg 31, NL-1031HW Amsterdam (NL).

(74) Agent: **MATTHEZING, Robert, Maarten;** Carel van Bylandtlaan 16, NL-2596HR THE HAGUE (NL).

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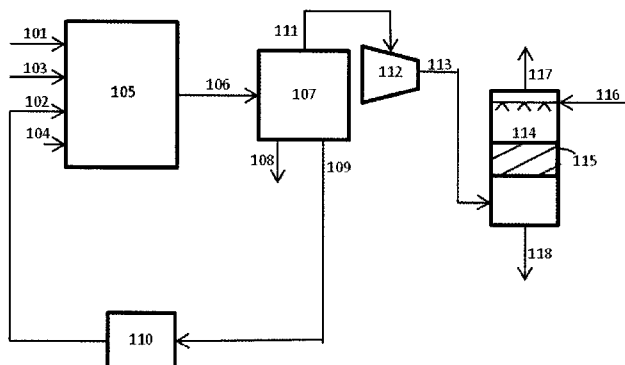
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(54) Title: PROCESS FOR REMOVING OXYGENATES FROM AN OLEFIN STREAM

Figure 1



(57) Abstract: The invention provides a for the removal of oxygenate from an olefin rich gas stream, the process comprising the steps of: (a) reacting an oxygenate feedstock, comprising oxygenate, in an oxygenate reaction zone in the presence of a catalyst comprising a molecular sieve, at a temperature in the range of from 350 to 1000°C, to produce a reaction effluent stream, comprising at least oxygenate, olefin, water and acidic by-products; (b) cooling the reaction effluent stream and contacting it with a first aqueous stream in a quench zone to produce an aqueous stream and an olefin rich gas stream; (c) compressing the olefin rich gas stream in one or more compressors in series to produce a compressed gas stream, (d) cooling the compressed gas stream and separating condensed material from said gas stream after each of the one or more compressors, wherein after at least one of the one or more compressors in step (c), step (d) is carried out by contacting the compressed gas stream directly with a second aqueous stream and separating the resultant material into an oxygenates depleted gas stream and an aqueous wash stream.