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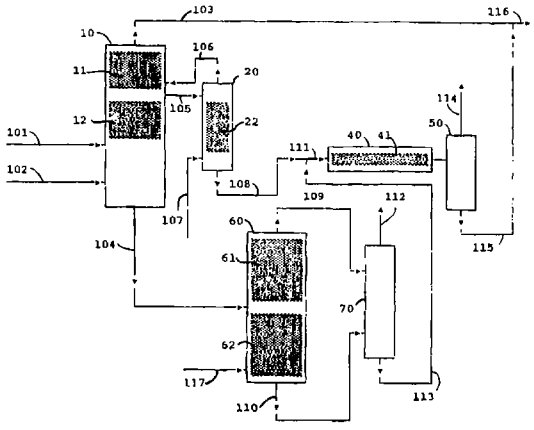
(54) Title: PROCESS FOR SULFUR REDUCTION IN NAPHTHA STREAMS



(57) Abstract: A process for concurrently fractionating and treating of a full range naphtha stream. The full boiling range naphtha stream is first subjected to simultaneous thioetherification or selective hydrogenation and splitting into a light boiling range naphtha, an intermediate boiling range naphtha and a heavy boiling range naphtha. The intermediate boiling range naphtha containing thiophene and thiophene boiling range mercaptans, dienes or mixtures may be subjected to a second thioetherification or selective hydrogenation, depending on its make-up, and then passed on to a polishing hydrodesulfurization reactor or the entire intermediate stream may be passed directly to the polishing reactor. The bottoms are subjected to concurrent hydrodesulfurization and fractional distillation and the combined overheads and bottoms are fed to the polishing reactor. The effluent from the polishing reactor may be combined with the light boiling range naphtha to produce a new full boiling range naphtha containing substantially less total sulfur than the original feed. The object being to meet higher standards for sulfur removal, by treating the components of the naphtha feed with the process that preserves the olefinic while most expediently removing the sulfur compounds.

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