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(54) Title: ALKYLATION PROCESS USING AN ALKYL HALIDE PROMOTED IONIC LIQUID CATALYST

(57) Abstract: A process for the production of a high quality gasoline blending components from refinery process streams by the alkylation of light isoparaffins with olefins using an ionic liquid catalyst is disclosed. The alkylation process comprises contacting a hydrocarbon mixture comprising at least one olefin having from 2 to 6 carbon atoms and at least one isoparaffin having from 3 to 6 carbon atoms under alkylation conditions, said catalyst comprising a mixture of at least one acidic ionic liquid and at least one alkyl halide. The alkylhalide by reacting to at least a portion of the olefin with a hydrogen halide.



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