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(54) Title: ISOMERIZATION OF BUTENE IN THE IONIC LIQUID-CATALYZED ALKYLATION OF LIGHT ISOPARAFFINS
AND OLEFINS

(57) Abstract: A process for producing alkylate comprising contacting a first hydrocarbon stream comprising at least one olefin
having from 2 to 6 carbon atoms which contains 1-butene with an isomerization catalyst under conditions favoring the isomerization
of 1-butene to 2-butene so the isomerized stream contains a greater concentration of 2-butene than the first hydrocarbon stream and
contacting the isomerized stream and a second hydrocarbon stream comprising at least one isoparaffin having from 3 to 6 carbon
atoms with an acidic ionic liquid catalyst under alkylation conditions to produce an alkylate stream is disclosed.



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