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(54) Title: IONIC LIQUID ALKYLATION OF ISOBUTANE WITH ETHYLENE TO PRODUCE ALKYLATE

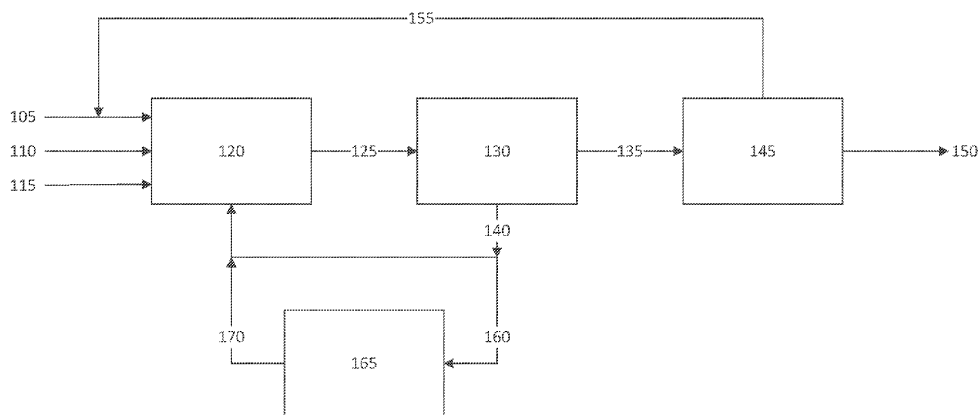


FIG. 1

(57) Abstract: A process for producing high octane alkylate is provided. The process involves reacting isobutane and ethylene using an ionic liquid catalyst. Reaction conditions can be chosen to assist in attaining, or to optimize, desirable alkylate yields and/or properties.

[Continued on next page]

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