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

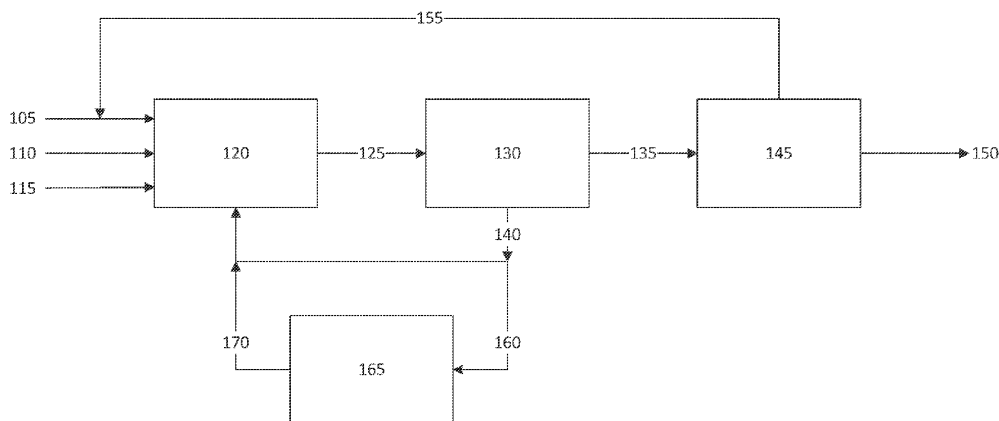


FIG. 1

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

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