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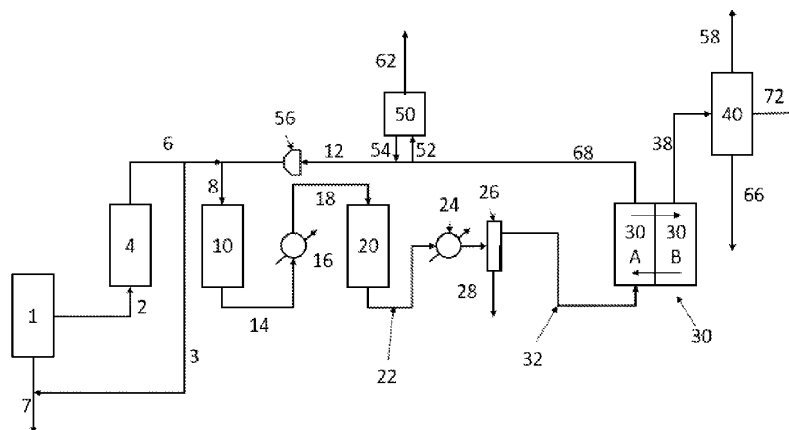
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(54) Title: DUAL-STAGE SYNTHESIS OF LPG FROM BIO-BASED SOURCES

FIG. 4



(57) Abstract: A method is provided for synthesizing bio-based LPG from renewable sources via a bio-based synthetic gas feedstock, in a dual-stage reaction system comprising an oxygenate synthesis reaction zone and an oxygenate conversion reaction zone that are configured for producing and converting a methanol intermediate for reduced CO₂ selectivity. The method includes recovering LPG from either the full reaction zone effluent or from a purge stream separated from the full reaction zone effluent for LPG recovery.