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(54) **Title:** FUEL COMPOSITIONS FOR CONTROLLING COMBUSTION IN ENGINES

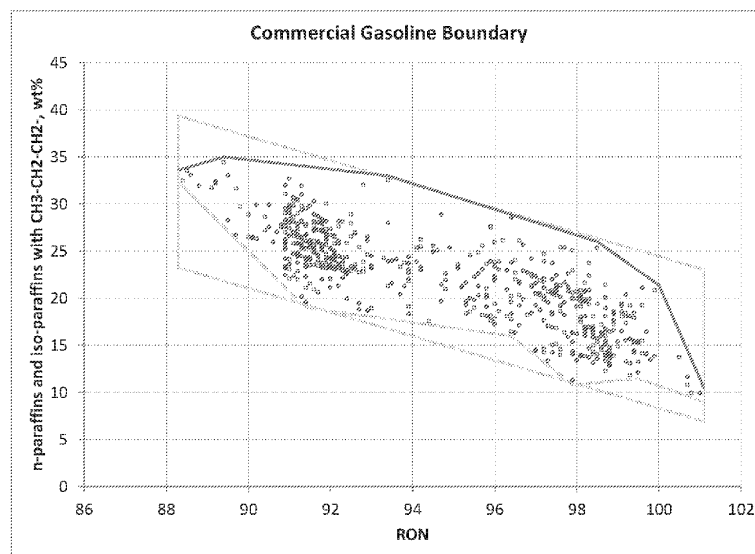


FIG. 4

(57) **Abstract:** Naphtha boiling range compositions are provided that can have improved combustion properties (relative to the research octane number of the composition) in spark ignition engines and/or compression ignition engines. The improved combustion properties can be achieved by controlling the total combined amounts of n-paraffins and isoparaffins that include a straight-chain propyl group ($R_1\text{-CH}_2\text{-CH}_2\text{-CH}_2\text{-R}_2$). For such a straight-chain propyl group, R_2 can correspond to any convenient C_xH_y group that can appear in a paraffin or isoparaffin. R_1 can correspond to a hydrogen atom, making the straight-chain propyl group a terminal n-propyl group; or R_1 can correspond to any convenient C_xH_y group that can appear in a paraffin or isoparaffin.

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