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(54) Title: PARAFIN HYDRO-NORMALIZATION TO IMPROVE THE CARBON FOOTPRINT OF STEAM CRACKING

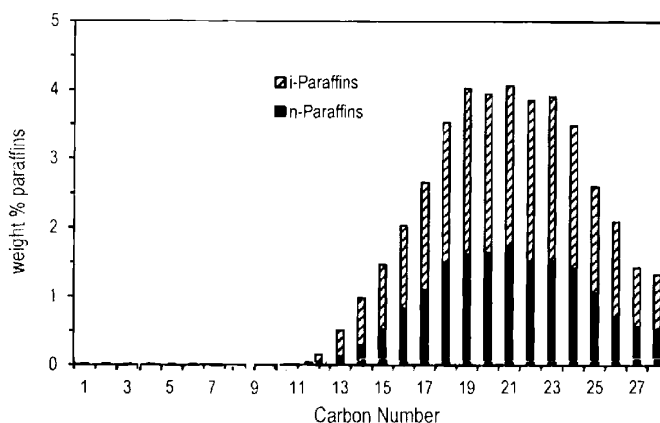


FIG. 1

(57) Abstract: Provided is a stable and efficient process for preparing ethylene in improved yields when starting with an industrial feedstock. Industrial feedstocks like vacuum gas oils, plastics- or tire-derived pyrolysis oils or renewable feedstocks generally comprise at least 5 wt. % C₇⁺ n-paraffins or n-paraffin moieties. The reaction is run in the presence of an LTA type zeolite, which zeolite has an acid site concentration preferably about 2.7 mol/l or greater. A boiling range of n-paraffins is then collected from the hydroprocessing reactor comprising C₂-C₆ n-paraffins. The collected C₂-C₆ n-paraffins can then be pyrolyzed in a steam cracker with good results including improved ethylene production.

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