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(54) Title: PROCESSING PYROLYSIS TAR PARTICULATES

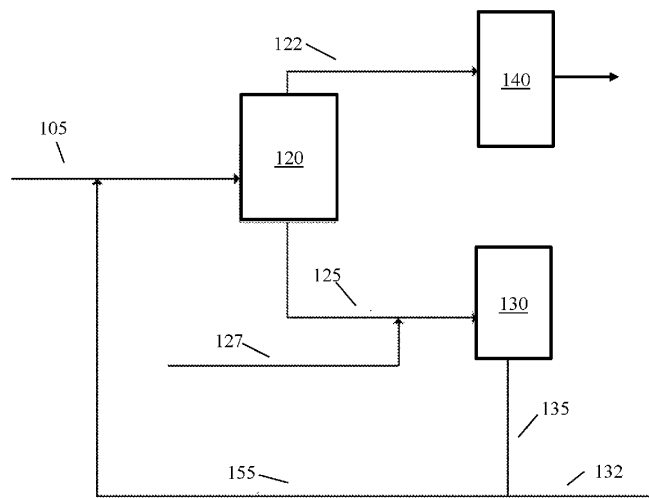


FIG. 1

(57) **Abstract:** Systems and methods are provided for increasing the portion of a pyrolysis tar fraction that can be hydroprocessed by using a physical particle size reduction process on at least a portion of the pyrolysis tar fraction. The physical particle size reduction process can reduce the percentage of particles in the pyrolysis tar fraction that have a particle size of 50nm or greater. It has been unexpectedly discovered that at least a portion of the particles having a size of 50nm or less, can be effectively hydroprocessed to form products of greater value while still reducing or minimizing the amount of fouling or plugging in a hydroprocessing catalyst bed. By increasing the number of particles having a size of 50nm or less, while selectively removing larger particles from the SCT fraction, a higher yield of hydrocarbon products can be achieved for a feed containing an SCT fraction. This can reduce or minimize the amount of particulates that are disposed of by incineration or another disposal method for fractions that have a lesser value.

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