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(54) **TAILORED FISCHER-TROPSCH SYNTHESIS PRODUCT DISTRIBUTION**

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C07C 9/22 (2006.01)
C07C 1/02 (2006.01)

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See application file for complete search history.

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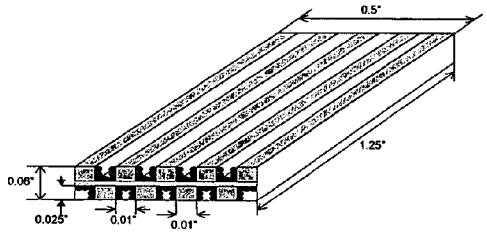
(57) **ABSTRACT**

Novel methods of Fischer-Tropsch synthesis are described. It has been discovered that conducting the Fischer-Tropsch synthesis over a catalyst with a catalytically active surface layer of 35 microns or less results in a liquid hydrocarbon product with a high ratio of C_5-C_{20}:C_{20+}. Descriptions of novel Fischer-Tropsch catalysts and reactors are also provided. Novel hydrocarbon compositions with a high ratio of C_5-C_{20}:C_{20+} are also described.

19 Claims, 10 Drawing Sheets