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(54) Title: METHOD AND SYSTEM FOR CHEMICAL AND PHYSICAL CHARACTERIZATION OF COMPLEX SAMPLES

(57) Abstract: A method and system for rapid determination of a hydrocarbon type composition, such as crude oils and fractions thereof, and obtaining the information necessary to assess the yield of commercially valuable fuel and lube oil fractions in a single process, variations of the method and system use Gas Chromatography — FID/Mass Spectrometry and other features, including an auto sampler, a wall coated capillary column, a temperature programmable injector, and a data processing system for compiling and processing the experimental data. The system and method further include a computer system with application software or other processing mechanism and optionally a communication network. One variation provides a graphical user interface for the entry of data and for displaying information, such as in a graphical manner, to show the relationship of various determined outputs and results.



WO 2008/005335 A2