

Title (en)

METHOD AND SYSTEM FOR CONTROLLING A FLUID CATALYTIC CRACKER

Title (de)

VERFAHREN UND SYSTEM ZUR REGELUNG EINES FLUIDKATALYTISCHEN CRACKERS

Title (fr)

PROCEDE ET SYSTEME DE REGULATION D'UN CRAQUEUR CATALYTIQUE FLUIDE

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Application

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Abstract (en)

[origin: WO0151588A1] In a distillation control system, a nuclear magnetic resonance (NMR) sensor identifies the composition of petroleum distillates from a distillation tower, and preferably also identifies the composition of the input feed method. This information is processed to obtain estimates of values of selected properties of the distillates and the feed. These values are provided to a multivariate controller, together with a setpoint of desired quality factors selected on the basis of competitive market forces, environmental regulations and economic factors including feed and product prices and operating cost. On the basis of the NMR measured values of selected quality properties, the multivariate controller generates values of manipulated operating variables that, when applied to the distillation system, adjust the distillation operation to reduce differences between the controlled variables and their respective setpoints. The ultimate values of the operating variables are determined, preferably in conjunction with an optimizer so that product qualities are maintained and the tower is operated in an economically optimum manner subject to specific characteristics of the refinery.

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