Title (en)

REDUCING THE TEMPERATURE IN A REGENERATION ZONE OF A FLUID CATALYTIC CRACKING PROCESS

Publication

EP 0195129 B1 19880817 (EN)

Application

EP 85116235 A 19851219

Priority

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Abstract (en)

[origin: EP0195129A1] A method for operating a fluid catalytic cracking unit comprising a regeneration zone and a reaction zone with a relatively reduced temperature in the regeneration zone while processing a high-coke-making hydrocarbon feedstock having a 50 volume percent distillation temperature greater than about 500 DEG F (260 DEG C) which method comprises contacting at conversion conditions the feedstock in a reaction zone with a fluidizable mixture of regenerated cracking catalyst and low-coke-make non-catalytic solid particles, comprising a refractory inorganic oxide, in a ratio of low-coke-make solid particles to cracking catalyst from about 1:100 to about 10:1, the low-coke-make solid particles having a surface area of less than about 5 m<2>/g and a coke making capability of less than about 0.2 weight percent coke in the ASTM standard method for testing cracking catalyst by microactivity (MAT); separating the resulting hydrocarbon products from the mixture of deactivated cracking catalyst and low-coke-make solid particles; recovering the hydrocarbon products; passing the mixture of cracking catalyst and low-coke-make solid particles to the regeneration zone for generation by removal of coke; and passing the resulting regenerated mixture of cracking catalyst and low-coke-make solid particles from the regeneration zone to the reaction zone to contact the feedstock as described above whereby the regeneration zone temperature is maintained at a reduced temperature as compared to an equivalent operation without the use of the low-cake-make solid particles while simultaneously not reducing the coke burning capacity of the regeneration zone or affecting the operation of the reaction zone.

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