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(54) Title: HIGH TEMPERATURE NAPHTHA DESULFURIZATION USING A LOW METAL AND PARTIALLY DEACTIVATED CATALYST

(57) Abstract: A high temperature naphtha desulfurization process with reduced olefin saturation employs a partially spent and low metals content hydrodesulfurization catalyst having from 2-40 % the activity of a new catalyst. The catalytic metals preferably include Co and Mo in an atomic ratio of from 0.1 to 1. The catalyst is preferably at least partially regenerable, has less than 500 wppm of a total of one or more of nickel, iron and vanadium and preferably has no more than 12 wt. % catalytic metal calculated as the oxide. This permits selective deep desulfurization, with reduced olefin saturation, low product mercaptan levels and little or need for downstream mercaptan removal.