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(54) Title: INCREASING OCTANE NUMBER OF LIGHT NAPHTHA USING A GERMANIUM-ZEOLITE CATALYST

(57) Abstract: This invention relates to a process for the increasing the octane number of a naphtha hydrocarbon feed having a predominantly paraffin content with a germanium -containing zeolite catalyst. The catalyst is a non-acidic germanium zeolite on which a noble metal, such as platinum, has been deposited. The zeolite structure may be of MTW, MWW, MEL, TON, MRE, FER, MFI, BEA, MOR, LTL or MTT. The zeolite is made non-acidic by being base-exchanged with an alkali metal or alkaline earth metal, such as cesium, potassium, sodium, rubidium, barium, calcium, magnesium and mixtures thereof, to reduce acidity. The catalyst is sulfur tolerant. The hydrocarbon feed may contain sulfur up to 1000 ppm. The present invention could be applicable to a feedstream which is predominantly naphthenes and paraffins.



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