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(54) Title: METHOD FOR DEPOSITING CATALYST METALS INTO ZEOLITE TO PRODUCE HYDROCARBON PROCESSING CATALYST

(57) Abstract

An ion exchange method is provided for loading and uniformly distributing noble metals into a catalyst substrate comprising a zeolite to make a monofunctional, non–acidic reforming catalyst. The catalyst substrate is contacted with an aqueous loading solution comprising noble metal cations and non–noble metal cations. The loading solution is formulated such that the equivalents of non–noble metal cations remaining in the catalyst not ionically bonded to the zeolite when loading is complete is 1.2 to 6.0 times the equivalents of non–noble metal cations displaced from the zeolite when the noble metal cations ion exchange into the zeolite, and simultaneously the endpoint pH of the loading solution is between 10.0 and 11.5. The required 1.2 to 6.0 ratio is achieved when the ratio of moles of non–noble metal cations added to the loading solution to moles of noble metal added to the loading solution is between 1 and 10. The use of ion exchange method results in zeolite catalysts having reduced amounts of detrital material in the micropores of the zeolite.