

5569806

**OLEFIN ISOMERISATION PROCESS
USING METALLIC CATALYSTS
IMPREGNATED WITH ORGANIC
SULPHUR-CONTAINING
COMPOUNDS BEFORE LOADING
INTO THE REACTOR**

Cameron Charle; Nocca Jean-Luc; Sarrazin Patrick;
Forestiere Alain Paris, FRANCE assigned to
Institut Francais Du Petrole

The invention concerns a process for the isomerisation of less substituted olefins to more substituted external olefins and/or internal olefins in the absence of diolefins, in the presence of a palladium based catalyst deposited on a support. Before loading it into the reactor, said catalyst is treated with at least one sulphur-containing compound which is dissolved in a solvent then activated in a neutral or reducing atmosphere between 20°C. and 300°C., 1 and 50 bars and with a VVH of 50 to 600 h-1. The catalyst, containing 0.05% to 10% by weight of sulphur, is brought into contact with the feedstock and hydrogen between 20° C. and 200° C., 1 and 50 bars, a VVH of 0.5 to 10 h-1 and a H2/olefin molar ratio of 0.01 to 1.

5582713

**CATALYTIC CRACKING UTILIZING
A CATALYST COMPRISING ZEOLITE
GZS-11**

Wu Jianxin; Gatte Robert R; Roberie Terry G
Elkridge, MD, UNITED STATES assigned to W R
Grace & Co -Conn

A synthetic zeolite, designated zeolite GZS-11, is made having a molar composition expressed by the formula: (*See Patent for Tabular Presentation*) PS where M is an inorganic cation of valance n, R is

an organic cation of valence n, x has a value of less than 1.0, Y is one or more of +3 valence elements, such as aluminum, boron, gallium, iron, chromium, vanadium, molybdenum, or manganese, X is one or more of +4 valence elements, such as silicon, germanium, or titanium, y has a value of between 6 to 25, w has a value of up to 4 depending upon the degree of hydration of the zeolite, and having an X-ray diffraction pattern of the assynthesized zeolite substantially as in Table 1. The method for making the low ratio of XO₂/Y₂O₃ such as SiO₂/Al₂O₃ is achieved by adjusting the synthesis mixture composition during the aging stage through the addition of one or more of the solutions containing the reactive sources of zeolitic components.

5585316

CATALYST TREATMENT

Nay Barry; Smith Mark R; Telford Clive D
Woking, UNITED KINGDOM assigned to British
Petroleum Company plc

A cobalt catalyst for use in the Fischer Tropsch reaction of synthesis gas to form hydrocarbons is activated or regenerated by treatment of a cobalt containing catalyst with a gas containing carbon monoxide, said gas containing less than 30% v hydrogen. The catalyst obtained has increased activity and greater selectivity towards producing C₅+ hydrocarbons.

5591238

**METHOD FOR PREPARING
SYNTHESIS GAS USING NICKEL
CATALYSTS**

Bhattacharyya Alakananda; Chang Wen-Dong;
Kleefisch Mark S; Udovich Carl Wheaton, IL,
UNITED STATES assigned to Amoco Corporation

A method and nickel-containing catalyst are disclosed for preparing synthesis gas by the reforming of a hydrocarbyl compound using an oxygen-containing compound.

5591323

**PROCESS FOR SWEETENING
PETROLEUM CUTS WITHOUT
REGULAR ADDITION OF ALKALINE
SOLUTION USING A BASIC SOLID
CATALYST**

Marcilly Christian; Leporq Serge; Courty Philippe Houilles, FRANCE assigned to Institut Francais du Petrole

A process for sweetening a petroleum cut containing mercaptans, wherein said petroleum cut is subjected to oxidation conditions by being contacted with a porous catalyst, in the presence of air said process being characterised in that said catalyst comprises 10 to 98% by weight of at least one mineral solid phase constituted of an alkaline aluminosilicate with a Si/Al atomic ratio less than or equal to 5, 1 to 60% by weight of active carbon, 0.02 to 2% by weight of at least one metal chelate and 0 to 20% by weight of at least one organic or mineral binding agent, has a basicity determined according to the 2896 ASTM standard with 20 milligrams of potash per gram and a total BET surface area of 10 m²g⁻¹, and contains inside its pore structure a permanent aqueous phase representing 0.1 to 40% by weight of dry catalyst.

5591326

**CATALYTIC PROCESS FOR CRUDE
OIL DESALTING**

Shih Stuart S Cherry Hill, NJ, UNITED STATES assigned to Mobil Oil Corporation

A catalytic desalting process for processing whole crude oils. The desalting process uses an M41S catalyst to remove salts from the whole crude. Solids may also be removed from the whole crude using a porous material having a pore size greater than about 10 microns. The catalytic desalting process does not generate waste water.

5591689

**PREPARATION OF ISOMERIZATION
CATALYST COMPOSITION**

Wu An-hsiang; Drake Charles A; Melton Ralph J Bartlesville, OK, UNITED STATES assigned to Phillips Petroleum Company

A Group VIII metal and chloride-containing composition (effective as an alkane/cycloalkane isomerization catalyst) is prepared by a method which comprises mixing aluminum trichloride with a solid material containing at least one Group VIII metal (Pt and/or Pd and/or Ni) and alumina, heating the obtained mixture in an inert gas at about 450°-750°C., and then treating the mixture with a hydrogen chloride-containing gas at about 300°-700°C.

5597944

**DEHYDROGENATION OF
N-PARAFFIN TO N-OLEFIN
EMPLOYING MANGANESE OXIDE
OCTAHEDRAL MOLECULAR SIEVE
AS CATALYST**

O'Young Chi-Lin; Sawicki Robert A; Yin Yuan-Gen; Xu Wen-Qing; Suib Steven L Poughkeepsie, NY, UNITED STATES assigned to Texaco Inc

The dehydrogenation of n-parrofin to n-olefins is catalyzed by novel synthetic manganese oxide