useful as catalysts being superior in functions, such as activities, to the conventional hydrogenation catalysts are easily obtainable. Sufficiently desulfurized hydrocarbons are obtainable by allowing the catalyst compositions to contact sulfur-containing hydrocarbons in the presence of hydrogen.

5565092

HALOGEN RESISTANT HYDROGENATION PROCESS AND CATALYST

Pannell Richard; Maroie Serge M J P Kingwood, TX, UNITED STATES assigned to Exxon Chemical Patents Inc

A process has been developed for decolorizing (and/or hydrogenating, and/or dehalogenating) a halogen containing unsaturated feedstock and/or polymeric resins. The process has the advantage of being substantially less affected by prolonged exposure to halogen contaminants and impurities than typical hydrogenation catalysts. A novel catalyst comprising (a) one or more metals selected from the group consisting of the metals in Group 8, Group 9 Group 10 and mixtures thereof; (b) one or more promoters selected from the group consisting of oxides of the elements in Group 1, Group 2, the Lanthanides group, the Actinides group and mixtures thereof; and (c) a support has also been developed.

5565401

CATALYST COMPRISING AN ASSEMBLY OF AT LEAST ONE WIRE AND ITS USE IN COMBUSTION OR IN POST-COMBUSTION

Le Page Jean-Francois; Mabilon Gil Rueil Malmason, FRANCE assigned to Institut Francais du Petrole

The invention relates to a catalyst comprising an assembly of at least one wire that comprises, in % weight, between 60 and 90% iron, and between 10 and 25% chromium, at least one metal selected from the group formed by platinum, rhodium, palladium, ruthenium, iridium, gold and silver having been deposited on the assembly, the outside contour of the cross-section of the wire being included in a ring whose area is between a circle with a 90 mum diameter and a circle with a 5 mm diameter, the length of the wire being at least equal to 20 cm, and the assembly being mechanically integral, the wire having been subjected to a prior depositing of aluminum, in a proportion going up to 10% by weight in relation to the weight of the wire, followed by a redrawing. A preferred assembly corresponds to a knitted structure in the shape of a sock.

5569455

EXHAUST GAS CATALYTIC PURIFIER CONSTRUCTION

Fukui Isao; Takahashi Masamitsu; Ihara Kazunori; Murakami Hiroshi; Tanaka Tetsuhiro; Miyaura Shinobu; Kuroda Shinichi; Hiraishi Masahiro; Inoue Koji Uji, JAPAN assigned to Shimadzu Corporation; Mazda Motor Corporation

Method of forming a catalytic bonding layer by chemical vapor deposition (CVD) onto carrier structures including internal combustion engine exhaust system and catalytic converter components, in order to bond a catalyst layer thereto, thereby providing a structure wherein additionally the bonding layer can be energized to promote catalytic conversion-activating preheating of the catalyst. In an electromagnetic induction catalytic preheating system, a ceramic lattice or a metallic network can form the base structure of the catalytic converter, wherein at least the latter is encompassed by an electrical/thermal insulating layer; around either

induction coiling is wrapped and secured by a thermally insulating material. Upon engine start, current is electromagnetically induced in the catalytic bonding layer or the metallic network through the induction coiling. Furthermore, the specific heat capacity of the bonding layer is low, and its specific resistance can be predetermined; thus in heating quickly and efficiently,in tandem the catalyst is heated. The catalytic preheating is also made efficient by the insulating properties of the insulating layers.

5582802

CATALYTIC SULFUR TRIOXIDE FLUE GAS CONDITIONING

Spokoyny Felix E; Krigmont Henry V Costa Mesa, CA, UNITED STATES

A method and apparatus for the selective control of the sulfur trioxide concentration in flue gases, to enhance the ash removal efficiency of electrostatic precipitators, which includes supporting a catalyst in the path of the flue gas, positioning temperature modifying means in communication with the catalyst, passing the flue gas by the catalyst and selectively varying the temperature of the catalyst, with the temperature modifying means, to vary the amount of catalytic conversion of SO2 in the flue gas to SO3.

5582809

CATALYST AND METHOD FOR DENITRIZATION OF NITROGEN OXIDES

Rikimaru Hiroaki; Umaba Toshikatsu; Yoshikawa Yoshiyuki Osaka, JAPAN assigned to Sakai Chemical Industry Co Ltd; Mitsubishi Jukogyo Kabushiki Kais

A catalyst for reducing nitrogen oxides into nitrogen and water in the presence of a reducing agent, which comprises: (a) titanium; (b) at least one element selected from the group consisting of tungsten and molybdenum in a total amount of 10-25% by weight in terms of oxides; and (c) niobium in an amount of 0.1-2% by weight in terms of oxides.

5583081

COPPER-CONTAINING ZEOLITE CATALYSTS

Price Geoffrey L; Kanazirev Vladislav Baton Rouge, LA, UNITED STATES assigned to Board of Supervisors of Louisiana State University and Agricultural and Mechanical College; Bulgarian Academy of Science

A catalyst useful in the conversion of nitrogen oxides or in the synthesis of nitriles or imines from amines, formed by preparing an intimate mechanical mixture of a copper (II)-containing species, such as CuO or CuCl2, or elemental copper, with a zeolite having a pore mouth comprising 10 oxygen atoms, such as ZSM-5, converting the elemental copper or copper (II) to copper (I), and driving the copper (I) into the zeolite.

5585083

CATALYTIC PROCESS FOR FORMALDEHYDE OXIDATION

Kielin Erik J; Brown Kenneth G; D'Ambrosia Christine M Norfolk, VA, UNITED STATES assigned to The United States as represented by the Administrator of the National Aeronautics and Space Administration; Rochester Gas & Electric Co