

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**

Spokoiny 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