

A process for producing a vanadium-phosphorus oxide-containing catalyst precursor, which comprises (a) introducing into an organic solvent a vanadium alkoxide as a pentavalent vanadium compound and a phosphorus compound in the presence of a reducing agent capable of reducing the pentavalent vanadium compound to a tetravalent state, (b) hydrolyzing at least a part of the vanadium alkoxide before or after the introduction of the phosphorus compound, and (c) heating the vanadium-containing liquid medium obtained in step (b), in the presence of the phosphorus compound to reduce at least a part of vanadium to a tetravalent state.

5597936

METHOD FOR MANUFACTURING COBALT CATALYSTS

Perkins Christopher M; Sivik Mark R Cincinnati, OH, UNITED STATES assigned to The Procter & Gamble Company

A method for manufacturing cobalt complexes having the formula: (*See Patent for Tabular Presentation*) PS wherein M ligands are selected from substituted and unsubstituted C1-C30 carboxylic acids having the formulas: (*See Patent for Tabular Presentation*) PS said method comprising reacting cobalt (II) complexes having the formula $(Co(H_2O)_6)T_y$ (e.g., T is chloride) with concentrated ammonium hydroxide/ammonium chloride, followed by an oxidizing agent (e.g., peroxide), followed by carboxylic acid anhydride of the formula $RC(O)O(O)CR$.

NEW HETEROGENEOUS FORMULATIONS

5565086

CATALYST COMBINATION FOR IMPROVED WAX ISOMERIZATION

Cody Ian A; Ravello Alberto Clearwater, CANADA assigned to Exxon Research and Engineering Company

The present invention is directed to an improved isomerization process employing a catalyst wherein the catalyst comprises a pair of catalyst particles of different acidity utilized either as distinct beds of such discrete particles or as a mixture of such discrete particles. The isomerization process utilizing such a catalyst produces a product which exhibits higher VI as compared to products produced using either catalyst component separately or using a single catalyst having the average acidity of the two discrete catalysts.

5565089

PROCESS FOR DECOKING CATALYSTS

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Coke deposits are removed from particulates by combustion in a regenerator by a process in which air is initially used as the oxidant. The combustion gas is subjected to a separation process to remove nitrogen therefrom, and the remaining carbon dioxide-enriched gas stream is recycled to the regenerator together while substantially pure oxygen is introduced into the regenerator. As the level of carbon dioxide in the system increases, the amount of air being introduced into the regenerator