

**5550300****GRADIENT CATALYST SYSTEM FOR THE INTEGRATED PRODUCTION OF ISOPROPYL ALCOHOL AND DIISOPROPYL ETHERS**

Taylor Robert J; Dai Pei-Shing E; Knifton John F  
Port Arthur, TX, UNITED STATES assigned to  
Texaco Chemical Inc

Disclosed is an integrated process for the generation of a mixture of ethers, such as diisopropyl ether, methyl tertiary butyl ether, and/or isopropyl tertiary butyl ether, from a crude by-product acetone stream composed of acetone, tertiary butyl alcohol and methanol by passing such a stream, in the presence of hydrogen, over a catalyst system characterized by having both a hydrogenation activity gradient along the reactor in one direction and an etherification activity gradient in the opposite direction.

**5550301****DRIED CATALYTIC SYSTEMS FOR DECOMPOSITION OF ORGANIC HYDROPEROXIDES**

Bhinde Manoj V; Lyons James E; Ellis Paul E  
Boothwyn, PA, UNITED STATES assigned to Sun  
Company Inc (R&M)

Organic hydroperoxides are decomposed by drying a reaction mixture containing the organic hydroperoxide and an organic solvent such that said dried reaction mixture comprises approximately 1 weight percent or less of water and contacting the dried reaction mixture with a metal organic ligand catalyst under hydroperoxide decomposition conditions. An organic co-solvent for the hydroperoxide may also be used. Particularly effective catalysts are cobalt acetylacetonates and

ruthenium acetylacetonates and combinations thereof.

**5550302****METHOD FOR PRODUCING AN ALCOHOL AND CATALYST PRECURSOR USEFUL FOR THE METHOD**

Mori Tomoyuki; Fujita Kouich; Hinoishi Hiroki  
Okayama, JAPAN assigned to Mitsubishi Chemical  
Corporation

A method for producing an alcohol, which comprises reacting an aldehyde with hydrogen in a gas phase in the presence of a hydrogenation catalyst to form a corresponding saturated alcohol, wherein a reduced product of a catalyst precursor composition comprising components represented by the following formula (I):(\*See Patent for Tabular Presentation\*) PS wherein X is a transition metal of Group 8 or 4A of the Periodic Table, and a to f represent the contents of the respective components as converted to their oxides and have the following values: a: 20 to 50 wt % b: 0 to 50 wt % c: 0 to 50 wt % d: 0.1 to 5.0 wt % e: 0.1 to 5.0 wt % f: 0.01 to 3.0 wt % is used as the hydrogenation catalyst.

**5554785****ORGANOTIN CATALYZED TRANSESTERIFICATION PRODUCTS**

Trapasso Louise E; Padegimas Stanley J; Epstein Peter; Hung Paul L; Mukhopadhyay Purnendu; Meisel Philip L West Long Branch, NJ, UNITED STATES assigned to CPS Chemical Company Inc

Esters of acrylic and methacrylic acid with alcohols and polyols having levels of purity greater than about 95% as measured by gas chromatography using an 11 meter RT\*200 trifluoropropylmethyl

polysiloxane column, a flame ionization detector, an injection temperature of 200°C, an initial column temperature of 90°C for two minutes, followed by heating to 270°C at a rate of 8°C per minute and a detector temperature of 300°C.

**5559262**

**PROCESS FOR THE PREPARATION OF RUTHENIUM COMPLEXES AND THEIR IN SITU USE AS HYDROGENATION CATALYSTS**

Beatty Richard P; Paciello Rocco A Newark, DE, UNITED STATES assigned to E I Du Pont de Nemours and Company

This invention relates to a process of preparing a ruthenium complex of the formula  $RuH_2(PR_3)_2L_2$  wherein  $PR_3$  is an organophosphorus ligand and  $L$  is  $H_2$  or  $PR_3$ ; a catalyst comprising at least one ruthenium complex having the formula  $RuH_2(PR_3)L_3$  wherein  $L_1$  is a neutral electron pair donor ligand; a process for preparing the catalyst and its use in situ in the hydrogenation of nitriles.

**5559277**

**PROCESS FOR PREPARING BIPHENYLS USING PALLADACYCLES AS CATALYSTS**

Beller Matthia; Herrmann Wolfgang A; Brossmer Christop Niedernhausen, GERMANY assigned to Hoechst AG

The invention relates to a process for preparing biphenyls of the formula (I) (\*See Patent for Chemical Structure\*) (I) where  $R_{1a}$  to  $R_{10a}$  are, independently of one another, hydrogen, C1-C12-alkyl, C1-C12-alkenyl, C1-C12-alkynyl, alkoxy-(C1-C12), acyloxy-(C1-C12), O-phenyl,

aryl, heteroaryl, fluorine, chlorine, OH,  $NO_2$ , CN, COOH, CHO,  $SO_3H$ ,  $SO_2R$ ,  $SOR$ ,  $NH_2$ , NH-alkyl-(C1-C12), N-alkyl<sub>2</sub>-(C1-C12), C-Hal<sub>3</sub>, NHCO-alkyl-(C1-C8), CONH-alkyl-(C1-C4), CON-(alkyl)<sub>2</sub>-(C1-C4), COO-alkyl-(C1-C12), CONH<sub>2</sub>, CO-alkyl-(C1-C12), NHCOH, NHCOO-alkyl-(C1-C8), CO-phenyl, COO-phenyl, CHCHCO<sub>2</sub>-alkyl-(C1-C12), CHCHCO<sub>2</sub>H, PO-phenyl<sub>2</sub>, PO-alkyl<sub>2</sub>-(C1-C8), by reaction of haloaromatics or aryl sulfonates of the formula (II) (\*See Patent for Chemical Structure\*) (II) with arylboron derivatives of the formula III (\*See Patent for Chemical Structure\*) (III) where  $R_{1a}$  to  $R_{10a}$  are as defined above and X is bromine, chlorine or  $OSO_2CF_3$ ,  $OSO_2$ -aryl,  $OSO_2$ -alkyl and Y is  $B(OH)_2$ ,  $B(O-alkyl)_2$ ,  $B(O-aryl)_2$ , wherein a palladium compound of the formula (IV) (\*See Patent for Chemical Structure\*) (IV) where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$  are, independently of one another, hydrogen, (C1-C4)-alkyl, (C5-C8)-cycloalkyl, (C1-C4)-alkoxy, fluorine,  $NH_2$ , NH-alkyl(C1-C4), N(alkyl)<sub>2</sub>-(C1-C4), CO<sub>2</sub>-alkyl-(C1-C4), OCO-alkyl-(C1-C4) or phenyl, or  $R_1$  and  $R_2$ ,  $R_2$  and  $R_3$ ,  $R_3$  and  $R_4$ ,  $R_5$  and  $R_6$  together form an aliphatic or aromatic ring, and  $R_7$ ,  $R_8$  are (C1-C8)-alkyl, (C3-C12)-cycloalkyl, substituted or unsubstituted aryl and Y is an anion of an inorganic or organic acid, is used as catalyst.

**ENANTIOSELECTIVE CATALYSIS**

**5552548**

**ENANTIOSELECTIVE OXAZABOROLIDINE CATALYSTS**

Quallich George J North Stonington, CT, UNITED STATES assigned to Pfizer Inc

The borane reduction of prochiral ketones to optically pure alcohols is effectively achieved by the utilization of catalytic amounts of the new and valuable oxazaborolidine catalysts of formula (I). (\*See Patent for Chemical Structure\*) (I).