is gradually reduced and, in compensation, the amount of oxygen flowing to the regenerator is gradually increased. Eventually, part or all of the air is replaced by oxygen and carbon dioxide recycle gas, and the level of oxygen and carbon dioxide are regulated to maintain the desired temperature in the regenerator.

5565399

CO OXIDATION PROMOTER AND USE THEREOF FOR CATALYTIC CRACKING

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CO promoter particles for an FCC unit comprising transition alumina and containing at least 3% cerium oxide and from 2 to 8% lanthanum oxide.

5565400

HYDROTHERMALLY STABLE METAL OXIDE SOLID SOLUTIONS AS CARRIERS FOR CATALYTIC COMPOSITES

Holmgren Jennifer S Bloomingdale, IL, UNITED STATES assigned to UOP

Ternary metal oxide solid solutions containing permutations of magnesium,nickel, and cobalt with trivalent metals such as aluminum, chromium, gallium, and iron show unusual resistance to rehydration. A composite comprising a) a ternary metal oxide solid solution of formula, (*See Patent for Tabular Presentation*) PS where: a, b, and c are atom fractions of A(II), B(II), and C(III), respectively; C(III) is a trivalent metal cation whose metal is selected from the group consisting of Al, Cr, Ga, Fe, and combinations thereof, and combinations of Al and metals of atomic number 57 through 71; A(II) and B(II) are divalent metal cations and i. A is Mg, B is Ni, and 0.05< or =a/(a+b)< or =0.5; or ii. A is Mg, B is Co, and 0.05< or =a/(a+b)< or =0.75; or iii. A is Co, B is Ni, and 0.05< or =a/(a+b)< or =0.95; and 1.5< or =(a+b)/c< or =5.0; and b) at least one catalytically active species selected from the group consisting of zeolites, synthetic molecular sieves; clays and pillared clays; and molybdenum, vanadium, copper, chromium, manganese, silver, and titanium in an upper valence state, are hydrothermally stable catalysts.

5569633

ION TRANSPORT MEMBRANES WITH CATALYZED DENSE LAYER

Carolan Michael F; Dyer Paul N Allentown, PA, UNITED STATES assigned to Air Products and Chemicals Inc

The present invention relates to surface catalyzed ion transport membranes which demonstrate superior oxygen flux. The membranes comprise a dense multicomponent metallic oxide layer having a first surface and a second surface wherein the first surface is coated with a catalyst such as a metal or an oxide of a metal selected from Groups II, V, VI, VII, VIII, IX, X, XI, XV and the F Block lanthanides of the Periodic Table of the Elements. One or more porous layers formed from a mixed conducting multicomponent metallic oxide or a material which is not mixed conducting under process operating conditions may be formed contiguous to the second surface of the dense layer. The claimed membranes are capable of separating oxygen from oxygen-containing gaseous mixtures.