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(54) Title: SURFACE MODIFICATION OF MIXED OXIDES FOR HIGH PGM DISPERSION

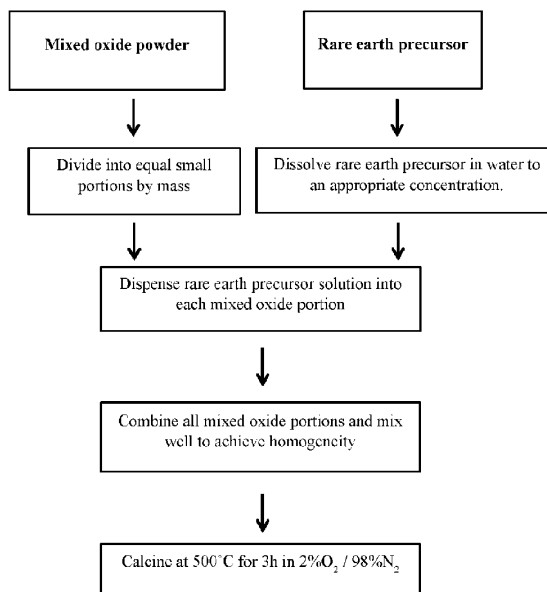


FIG. 1

(57) Abstract: Disclosed herein are compositions having a mixed oxide core comprising cerium oxide and zirconium oxide, which is free of alumina. The mixed oxide core contains about 15 wt% to about 60 wt% cerium oxide and about 40 wt% to about 85 wt% zirconium oxide based on the total weight of the mixed oxide core. The mixed oxide core has a rare earth oxide coating, the rare earth being selected from the group consisting of cerium, lanthanum, neodymium, praseodymium, yttrium, and mixtures thereof. Further, precious metals, including palladium or rhodium, are dispersed on the surface of these composition and the compositions have higher rhodium or palladium dispersion versus a composition comprising a mixed oxide core without a rare earth oxide coating. Further disclosed are processes of producing these compositions. The compositions may be used as part of a catalyst system.

[Continued on next page]

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