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(54) Title: PROCESS FOR THE AMMOXIDATION OR OXIDATION OF PROPANE AND ISOBUTANE

(57) Abstract: A process for the ammoxidation or oxidation of a saturated or unsaturated or mixture of saturated and unsaturated hydrocarbon, the process including the steps of combining a performance modifier, a fresh mixed oxide catalyst, or a used mixed oxide catalyst and a fresh and used mixed oxide catalyst to form a catalyst mixture, and contacting the hydrocarbon with an oxygen-containing gas, or an oxygen-containing gas and ammonia, in the presence of the catalyst mixture. The performance modifier may include a compound selected from the group consisting of aluminum compounds, antimony compounds, arsenic compounds, boron compounds, cerium compounds, germanium compounds, lithium compounds, molybdenum compounds, neodymium compounds, niobium compounds, phosphorus compounds, selenium compounds, tantalum compounds, tellurium compounds, titanium compounds, tungsten compounds, vanadium compounds, zirconium compounds and mixtures thereof.

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