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(54) Title: DEEPLY REDUCED OXIDATION CATALYST AND ITS USE FOR CATALYZING LIQUID PHASE OXIDATION REACTIONS (57) Abstract This invention relates to an improved catalyst, comprising a carbon support having a noble metal at its surface, for use in catalyzing liquid phase oxidation reactions, especially in an acidic oxidative environment and in the presence of solvents, reactants, intermediates, or products which solubilize noble metals; a process for the preparation of the improved catalyst; a liquid phase oxidation process using such a catalyst wherein the catalyst exhibits improved resistance to noble metal leaching, particularly in acidic oxidative environments and in the presence of solvents, reactants, intermediates, or products which solubilize noble metals; and a liquid phase oxidation process in which N-(phosphonomethyl)iminodiacetic acid (i.e., "PMIDA") or a salt thereof is oxidized to form N-(phosphonomethyl)glycine (i.e., "glyphosate") or a salt thereof using such a catalyst wherein the oxidation of the formaldehyde and formic acid by-products into carbon dioxide and water is increased.		