



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C07C 45/28, 47/22, B01J 8/38, 23/31, 23/92, C07C 201/14		A1	(11) International Publication Number: WO 99/03809
			(43) International Publication Date: 28 January 1999 (28.01.99)
(21) International Application Number: PCT/US98/14511		(74) Agent: STEVENSON, Robert, W.; E.I. du Pont de Nemours and Company, Legal Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).	
(22) International Filing Date: 14 July 1998 (14.07.98)			
(30) Priority Data: 60/055,693 15 July 1997 (15.07.97) US		(81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(71) Applicants: E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). ELF ATOCHEM, S.A. [FR/FR]; 10, La Défense, 4 & 8, cours Michelet, F-92800 Puteaux (FR).			
(72) Inventors: CONTRACTOR, Rashmikan, Maganlal; 2302 Orchard Lane, Wilmington, DE 19810 (US). ANDERSON, Mark, William; 1224 Herold Circle, Charlottesville, VA 22901 (US). CAMPOS, Daniel; 5771 Pyles Fort Road, Wilmington, DE 19807 (US). HECQUET, Gérard; Résidence Foch, Appartement 32, 70, place Foch, F-62400 Béthune (FR). KOTWICA, Roland; la Porte-Moneau-Moru, F-60700 Pontpoint (FR). PHAM, Charlotte; 3, rue des Eglises, F-67700 Saverne (FR). SIMON, Michel; 8, rue Gustave Charpentier, F-57500 Saint Avold (FR).		Published With international search report.	

(54) Title: IMPROVED VAPOR PHASE OXIDATION OF PROPYLENE TO ACROLEIN

(57) Abstract

An improved method for the selective vapor phase oxidation of propylene to acrolein in a recirculating solids reactor system using a bismuth molybdate multimetal oxide involving specific reactant concentrations (preferably 5 mol % to 30 mol % propylene, 0 to 20 mol % oxygen, and the remainder inert gas), particle size (1 to 300 micrometers), temperature (250 to 450 °C) and gas (1 to 15 seconds) and solids (2 to 60 seconds) residence times. Such a process leads to improved selectivity and propylene conversion.

