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(21) International Application Number: PCT/US99/28250 (22) International Filing Date: 30 November 1999 (30.11.99) (30) Priority Data: 09/215,410 18 December 1998 (18.12.98) US (71) Applicants: E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). DSM N.V. [NL/NL]; Het Overloon 1, Galeen, NL-6411 TE Heerlen (NL). (72) Inventor: BURKE, Patrick, Michael; 4613 Talley Hill Lane, Wilmington, DE 19803 (US). (74) Agent: STEVENSON, Robert, B.; E.I. Du Pont De Nemours and Company, Legal/Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).		(81) Designated States: CA, CN, ID, JP, KR, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: PROCESS FOR CARBOXYLATION OF AN ALLYLIC BUTENOL OR BUTENYL ESTER OF A CARBOXYLIC ACID (57) Abstract A process for the carbonylation of allylic butenol or butenyl ester of a carboxylic acid (e.g., crotyl acetate, 3-acetoxybutene-1 and mixtures thereof) in an anhydrous carboxylic acid solvent and production of beta-gamma unsaturated carboxylic acid anhydride (e.g., 3-pentenoic acid anhydride) utilizing a rhodium-containing catalyst (e.g., dicarbonylacetylacetonate rhodium (I)) promoted with a metal iodide (e.g., dicarbonylacetylacetonate rhodium (I), or the like). Such a process is particularly useful in the production of beta-gamma unsaturated carboxylic acid anhydride without promoting the back reaction producing butadiene and a carboxylic acid.		