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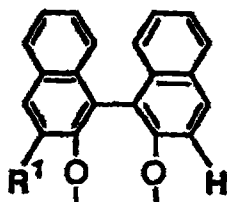
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<p>(21) International Application Number: PCT/NL97/00114 (22) International Filing Date: 7 March 1997 (07.03.97) (30) Priority Data: 08/616,721 15 March 1996 (15.03.96) US (71) Applicants: DSM N.V. [NL/NL]; Het Overloon 1, NL-6411 TE Heerlen (NL). E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). (72) Inventors: BURKE, Patrick, Michael; 4613 Tally Hill Lane, Wilmington, DE 19803 (US). GARNER, James, Michael; 815 N. Jackson #3, Wilmington, DE 19806 (US). TAM, Wilson; 3718 Brookcroft Lane, Boothwyn, PA 19061 (US). KREUTZER, Kristina, Ann; Apartment 2C, 4 Doe Run Court, Wilmington, DE 19808 (US). TEUNISSEN, Antonius, Jacobus, Josephus, Maria; Van Ostadestraat 42, NL-6165 XM Geleen (NL). SNIJDER, Carina, Sacha; Vogezenstraat 18, NL-6137 JR Sittard (NL). HANSEN, Carolina, Bernedette; Rolandsweg 27A, NL-6136 BT Sittard (NL). (74) Agent: CRAMWINCKEL, Michiel; Octrooibureau DSM, P.O. Box 9, NL-6160 MA Geleen (NL).</p>		<p>(81) Designated States: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GB, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, <u>SG</u>, SI, SK, TR, TT, UA, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published With international search report.</p>

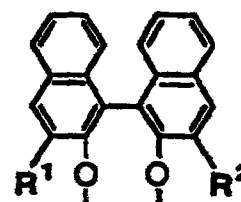
(54) Title: PROCESS TO PREPARE A TERMINAL ALDEHYDE

(57) Abstract

Process for the preparation of a terminal aldehyde by hydroformylation by reacting an ethylenically unsaturated organic compound with carbon monoxide and hydrogen in the presence of a catalyst system comprising iridium or rhodium and a bidentate organic phosphite ligand wherein the two phosphorus atoms of the phosphite ligand are linked with a 2,2'-dihydroxy-1,1'-binaphthalene bridging group having structure (Q), (Q) being (a) or (b), in which R¹ and R² are substituents other than hydrogen and in which R³ and R⁴ are the same or different substituted monovalent aryl groups and/or any one of OR³ and OR⁴ connected to one phosphorus atom forms an -O-R⁵-O-group, where R⁵ is a divalent organic group containing one or two aryl groups.



(a)



(b)