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(21) International Application Number: PCT/GB99/00797 (22) International Filing Date: 16 March 1999 (16.03.99) (30) Priority Data: 9805348.1 16 March 1998 (16.03.98) GB (71) Applicant (for all designated States except US): IMPERIAL CHEMICAL INDUSTRIES PLC [GB/GB]; Imperial Chem- ical House, Millbank, London SW1P 3JF (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): NEWMAN, Paul, David [GB/GB]; 20 Saint Margarets Court, Linnet Close, Cyncoed, Cardiff CF2 7HG (GB). CAMPBELL, Richard, Anthony [GB/GB]; 4 Tulloch Place, Saint Andrews, Fife KY16 8XJ (GB). TOOZE, Robert, Paul [GB/GB]; 11 Station Road, Norton, Stockton, Cleveland TS20 1EA (GB). EASTHAM, Graham, Ronald [GB/GB]; 7 Heslop Drive, Darlington, County Durham DL1 5TQ (GB). THORPE, Jamie, Michael [GB/GB]; 19 Woodside, Redcar, Cleveland TS10 4NG (GB). EDWARDS, Peter, Gerald [GB/GB]; 81 Plymouth Road, Penarth, Cardiff CF64 3DE (GB).		(74) Agents: GIBSON, Sara, Hillary, Margaret et al.; ICI Group Intellectual Property, Wilton, Middlesbrough, P.O. Box 90, Cleveland TS90 8JE (GB). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, 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). Published <i>With international search report.</i>
(54) Title: PROCESS FOR THE PREPARATION OF BISPHOSPHINES (57) Abstract A method of manufacturing a compound of general formula $(R_3-C)_2P-L^1-X-L^2-P-(C-R_3)_2$, in which each R is independently a pendant, optionally substituted, organic group through which the group is linked to tertiary carbon atom C; L^1 , L^2 are independently a linking group selected from an optionally substituted lower alkylene chain connecting the respective phosphorus atom to the group X and X is a bridging group comprising an optionally substituted aryl moiety to which the phosphorus atoms are linked on available adjacent carbon atoms, comprises: i) reacting together a compound of formula $H-L^1-X-L^2-H$ with an organometallic compound to form an intermediate compound of formula $M-L^1-X-L^2-M$, where M is an alkali metal atom; ii) reacting said intermediate compound with a compound of formula $(R_3-C)_2P-A$, where A is a halogen atom, to form said compound of general formula $(R_3-C)_2P-L^1-X-L^2-P-(C-R_3)_2$. M is preferably lithium, potassium or sodium and the intermediate compound may be isolated or not. The reaction (i) may advantageously be carried out in the presence of a complexing agent such as tetramethylethylenediamine.		