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(21) International Application Number: PCT/AU99/00882 (22) International Filing Date: 14 October 1999 (14.10.99) (30) Priority Data: PP 6494 14 October 1998 (14.10.98) AU (71) Applicant (for all designated States except US): COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION [AU/AU]; Limestone Avenue, Campbell, Australian Capital Territory 2601 (AU). (72) Inventors; and (75) Inventors/Applicants (for US only): MARCUCCIO, Sebastian, Mario [AU/AU]; 5 Sporing Court, Endeavour Hills, Victoria 3802 (AU). RODOPOULOS, Mary [AU/AU]; 39 Baratta Street, Blackburn South, Victoria 3130 (AU). WEIGOLD, Helmut [AU/AU]; 54 Leeds Road, Mount Waverley, Victoria 3149 (AU). OSVATH, Peter [AU/AU]; 6/20 Cromwell Road, South Yarra, Victoria 3141 (AU). (74) Agents: CAINE, Michael, James et al.; Davies Collison Cave, 1 Little Collins Street, Melbourne, Victoria 3000 (AU).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, 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, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, 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 With international search report.
(54) Title: ORGANOBORON DERIVATIVES AND PROCESS FOR COUPLING ORGANIC COMPOUNDS (57) Abstract This invention relates to a process for covalently coupling organic compounds which comprises: reacting an olefinic compound having at least one carbon to carbon double bond or an acetylenic compound having at least one carbon to carbon triple bond with a diboron derivative in the presence of a Group 8-11 metal catalyst to form an organoboron intermediate having an organoboronate residue on at least one carbon atom of the respective double or triple bond; and reacting the organoboron intermediate with an organic compound having a halogen or halogen-like substituent at a coupling position in the presence of a Group 8-11 metal catalyst and a suitable base, whereby the olefinic or acetylenic compound is coupled to the organic compound via a direct bond between the carbon atom having the organoboronate residue and the coupling position. This invention also relates to a process for preparing an organoboron derivative which comprises reacting an olefinic compound having a leaving group in at the allylic position with a diboron derivative in the presence of a Group 8-11 metal catalyst such that the leaving group is replaced with an organoboronate residue. The invention further relates to organoboron intermediates and their preparation.		