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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C07C 67/38, 69/54	A1	(11) International Publication Number: WO 97/35832 (43) International Publication Date: 2 October 1997 (02.10.97)
(21) International Application Number: PCT/EP97/01555 (22) International Filing Date: 25 March 1997 (25.03.97) (30) Priority Data: 96200823.1 26 March 1996 (26.03.96) EP (34) Countries for which the regional or international application was filed: GB et al. (71) Applicant: SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V. [NL/NL]; Carel van Bylandtlaan 30, NL-2596 HR The Hague (NL). (72) Inventors: DRENT, Eit; Badhuisweg 3, NL-1031 CM Amsterdam (NL); JAGER, Willem, Wabe; Badhuisweg 3, NL-1031 CM Amsterdam (NL).	(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, 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, TJ, TM, TR, TT, UA, UG, 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). Published With international search report.	

(54) Title: **PROCESS FOR THE CARBONYLATION OF ACETYLENICALLY UNSATURATED COMPOUNDS**

(57) Abstract

The invention relates to a process for the carbonylation of acetylenically unsaturated compounds, whereby a feedstock comprising an acetylenically unsaturated compound and a relatively minor amount of a 1,2-alkadiene compound is contacted under carbonylation conditions with carbon monoxide and a co-reactant, in the presence of a catalyst system, based on: a) a source of cations of one or more metals of Group VIII of the Periodic Table; b) a phosphine having an aromatic substituent which contains an imino nitrogen atom separated by at least one bridging carbon atom from the phosphorus atom; and c) a protic acid, characterized in that the catalyst system is further based on d) a monodentate monophosphine or monophosphite.