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(71) Applicant (for all designated States except US): **LUCITE INTERNATIONAL UK LIMITED** [GB/GB]; Queens Gate, 15-17 Queens Terrace, Southampton, Hampshire S014 3BP (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **EASTHAM, Graham, Ronald** [GB/GB]; 7 Heslop Drive, Darlington, Co Durham DL1 5TQ (GB). **CAMERON, Paul, Andrew** [GB/GB]; 22 Clarendon House, Uplands Road, Darlington DL3 7SL (GB). **TOOZE, Robert, Paul** [GB/GB]; Sassol Technology UK Limited, School of Chemistry, Purdie Building, The University, St Andrews, Fife KY16 9ST (GB). **CAVELL, Kingsley, John** [GB/GB]; 48 Ryder

Street, Pontcanna, Cardiff CF11 9BU (GB). **EDWARDS, Peter, Gerald** [GB/GB]; 81 Plymouth Road, Penarth, Vale of Glamorgan CF64 3DE (GB). **COLEMAN, Dennis, Lee** [GB/GB]; 29 Rickard Street, Trefforest, Pontypridd, Mid Glamorgan CF37 1RE (GB).

(74) Agents: **WALSH, David, Patrick** et al.; Appleyards Lees, 15 Clare Road, Halifax HX1 2HY (GB).

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(54) Title: A PHOSPHA-ADAMANTANE (S) CATALYTIC SYSTEM

(57) Abstract: A catalyst system capable of catalysing the carbonylation of an olefinally unsaturated compound is described. The catalyst system is obtainable by combining: (a) a metal of Group VIB or Group VIII B or a compound thereof; and (b) a bidentate phosphine of general formula (I) $\text{Ad}_s(\text{CR}^4\text{R}^5\text{R}^6)_t\text{Q}^2\text{-A-}(\text{K}, \text{D})\text{Ar}(\text{E}, \text{Z})\text{-B-Q}^1(\text{Ad})_u(\text{CR}^1\text{R}^2\text{R}^3)_v$. Ad represents an optionally substituted adamantyl radical bonded to the phosphorous atom via any one of its tertiary carbon atoms. A method of production of the catalyst is also illustrated.

WO 2004/014552 A1