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(21) International Application Number: PCT/GB97/00106 (22) International Filing Date: 15 January 1997 (15.01.97) (30) Priority Data: 9602222.3 3 February 1996 (03.02.96) ✓ GB (71) Applicant (for all designated States except US): IMPERIAL CHEMICAL INDUSTRIES PLC [GB/GB]; Imperial Chemical House, Millbank, London SW1P 3JF (GB). ✓ (72) Inventor; and (73) Inventor/Applicant (for US only): PERRY, Graham, Michael [GB/GB]; 4 Greenacre Close, Great Ayton, Middlesbrough, Cleveland TS9 6PG (GB). (74) Agents: HUMPHRIES, Martyn et al.; ICI Group Intellectual Property, P.O. Box 90, Wilton, Middlesbrough, Cleveland, TS90 8JE (GB).	(81) Designated States: BR, CA, CN, JP, KR, MX, RU, <u>SG</u> US, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.	
(54) Title: HYDROCARBON SEPARATION (57) Abstract A process for the separation of propylene from an input stream of C3 hydrocarbons containing propylene, possibly C4 and/or higher hydrocarbons, and MAPD (methyl acetylene and/or propadiene), comprises subjecting said input stream to fractional distillation to separate the propylene as an overhead stream leaving a bottoms stream containing said MAPD and any C4 and/or higher hydrocarbons. In order to avoid the need to slip substantial amounts of valuable propylene into the bottoms stream to maintain the concentration of MAPD in the bottoms stream at a safe level, a propane-containing stream is added to the input stream of C3 hydrocarbons so that the bottoms stream contains a substantial amount of propane. So that the propylene content of the bottoms stream can be maintained at below 10 % by weight, the amount of propane added to the input stream is such that the weight of propane, plus any propylene and C4 and/or higher hydrocarbons, in said bottoms stream is greater than the total weight of MAPD in said bottoms stream.		