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| <b>(51) International Patent Classification <sup>6</sup>:</b><br><b>C08G 63/664, 63/91</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 98/08887</b><br><b>(43) International Publication Date:</b> 5 March 1998 (05.03.98)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>(21) International Application Number:</b> <b>PCT/EP97/04730</b><br><b>(22) International Filing Date:</b> 29 August 1997 (29.08.97)<br><b>(30) Priority Data:</b><br>08/697,805 30 August 1996 (30.08.96) <b>US</b><br><b>(71) Applicant:</b> SHELL INTERNATIONALE RESEARCH<br>MAATSCHAPPIJ B.V. [NL/NL]; Carel van Bylandtlaan<br>30, NL-2596 HR The Hague (NL).<br><b>(72) Inventors:</b> FORSCHNER, Thomas, Clayton; 2211 Woodland<br>Drive, Richmond, TX 77469 (US). GWYN, David, Eric;<br>6502 Bria Bayou, Houston, TX 77072 (US). VEITH, Cary,<br>Alan; 1506 Emerald Springs Court, Houston, TX 77094<br>(US)                                                                                                                                                                                                                                                                                                                                                                     |           | <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR,<br>BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE,<br>GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,<br>LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,<br>PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,<br>TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE,<br>LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY,<br>KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH,<br>DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,<br>SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML,<br>MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.</i><br><i>Before the expiration of the time limit for amending the<br/>claims and to be republished in the event of the receipt of<br/>amendments.</i> |
| <b>(54) Title:</b> METHOD FOR PREPARING POLY-P-DIOXANONE POLYMER<br><b>(57) Abstract</b><br><p>Poly-p-dioxanone is prepared in a process comprising: (a) heating a reaction mixture comprising p-dioxanone and an effective amount of a polymerization catalyst under conditions of temperature and pressure effective to produce a reaction product mixture comprising molten poly-p-dioxanone and unreacted p-dioxanone; (b) adding to said reaction product mixture a cyclic anhydride under conditions effective for reaction of the poly-p-dioxanone with the cyclic anhydride to form an end-capped poly-p-dioxanone; (c) exposing the reaction product mixture to a temperature within the range of 50 to 150 °C under reduced pressure and removing unreacted p-dioxanone from the reaction product mixture; and (d) recovering the end-capped poly-p-dioxanone. The invention process permits the economical production of high molecular weight poly-p-dioxanone in the melt.</p> |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |