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(21) International Application Number: PCT/US98/27053 (22) International Filing Date: 17 December 1998 (17.12.98) (30) Priority Data: 09/016,385 30 January 1998 (30.01.98) US (71) Applicant: E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). (72) Inventors: MARKS, David, Neil; 203 Walker Way, Newark, DE 19711 (US). LANE, Samuel, Livingston; 6435 Durango Drive, Beaumont, TX 77708 (US). (74) Agent: STEVENSON, Robert, B.; E.I. du Pont de Nemours and Company, Legal Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).		(81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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 <i>With international search report.</i>
(54) Title: METHOD FOR MANUFACTURING POLY(HEXAMETHYLENE ADIPAMIDE) FROM MONOMETHYLADIPATE AND HEXAMETHYLENEDIAMINE (57) Abstract An improved method for manufacturing poly(hexamethylene adipamide), i.e. nylon 6,6, by reacting monomethyl adipate with hexamethylenediamine in an approximately equimolar ratio in the presence of water at a temperature of 100 to 165 °C while simultaneous distilling off of a stoichiometric amount of methanol. The resulting aqueous intermediate product is then heated to 200 to 260 °C while distilling off substantially all water at a pressure of 150 to 250 psig (1.03×10^6 to 1.72×10^6 Pa) followed by reducing the pressure to atmospheric pressure and increasing the temperature to 270 to 280 °C to polycondense the distillate residue. Such a process is useful in producing high purity commercial grade poly(hexamethylene adipamide) that advantageously avoids problems caused by N-methylation of the polyamide.		



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