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(21) International Application Number: PCT/US00/10037 (22) International Filing Date: 13 April 2000 (13.04.00) (30) Priority Data: 60/129,412 15 April 1999 (15.04.99) US (71) Applicant: E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). (72) Inventors: NGUYEN, Young, Dung-Thanh; 1815 Creekview Lane, Charlottesville, VA 22911 (US). FRANKFORD, Hans, R., E.; 2203 Sparre Drive, Kinston, NC 28504 (US). SWEET, Gregory, Eugene; 309 Stanwood Drive, Greenville, NC 27858 (US). VASSILATOS, George; 2811 Kennedy Road, Wilmington, DE 19810 (US). (74) Agent: HAMBY, Jane, O.; E.I. du Pont de Nemours and Company, Legal Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).	(81) Designated States: BR, CA, CN, ID, IN, JP, KR, MX, SG, TR, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>	

(54) Title: APPARATUS AND PROCESS FOR SPINNING POLYMERIC FILAMENTS

(57) Abstract

A melt spinning apparatus for spinning continuous polymeric filaments including a first stage gas inlet chamber (105) adapted to be located below a spinneret (113) and optionally a second stage gas inlet chamber (106) located below the first stage gas inlet chamber. The gas inlet chambers supply gas to the filaments to control the temperature of the filaments. The melt spinning apparatus also includes a tube (119) located below the second stage gas inlet chamber for surrounding the filaments as they cool. The tube may include an interior wall having a converging section, optionally followed by a diverging section.

