



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : C08F 210/16, 2/34, 4/602, C08J 5/18	A1	(11) International Publication Number: WO 98/44011 (43) International Publication Date: 8 October 1998 (08.10.98)
(21) International Application Number: PCT/US98/06081 (22) International Filing Date: 27 March 1998 (27.03.98) (30) Priority Data: 60/042,310 1 April 1997 (01.04.97) US (71) Applicant: EXXON CHEMICAL PATENTS INC. [US/US]; 5200 Bayway Drive, Baytown, TX 77520-5200 (US). (72) Inventors: LUE, Ching-Tai; 14938 Redwood Bend Trail, Houston, TX 77062 (US). MERRILL, Natalie, A.; 601 Aurora Street, Houston, TX 77008 (US). MUHLE, Michael, E.; 5902 Leafy Aspen Court, Kingwood, TX 77345 (US). VAUGHAN, George, A.; 3606 Durhill Street, Houston, TX 77025 (US). (74) Agents: HARRIS, Gerald, L. et al.; Exxon Chemical Company, P.O. Box 2149, Baytown, TX 77522-2149 (US).		(81) Designated States: AU, BR, CA, CN, JP, KR, MX, SG, Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: IMPROVED EASY PROCESSING LINEAR LOW DENSITY POLYETHYLENE		
(57) Abstract A polymer of ethylene and at least one alpha olefin having at least 5 carbon atoms obtainable by a continuous gas phase polymerization using supported catalyst of an activated molecularly discrete catalyst such as a metallocene in the substantial absence of an aluminum alkyl based scavenger, which polymer has a Melt Index (MI) as herein defined of from 0.1 to 15; a Compositional Distribution Breadth Index (CDBI) as defined herein of at least 70 %, a density of from 0.910 to 0.930 g/ml; a Haze value as herein defined of less than 20 %; a Melt Index ratio (MIR) as herein defined of from 35 to 80; an averaged Modulus (M) as herein defined of from 20 000 to 60 000 psi (pounds per square inch) and a relation between M and the Dart Impact Strength in g/mil (DIS) complying with formula (I). $DIS \geq 0.8 \times [100 + e^{(11.71 - 0.000268 \times M + 2.183 \times 10^{-9} \times M^2)}] \quad (I)$		