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(21) International Application Number: PCT/US00/00983 (22) International Filing Date: 14 January 2000 (14.01.00) (30) Priority Data: 09/233,362 19 January 1999 (19.01.99) US (71) Applicant: EXXONMOBIL RESEARCH AND ENGINEERING COMPANY [US/US]; 180 Park Avenue, P.O. Box 390, Florham Park, NJ 07932-0390 (US). (72) Inventors: PATIL, Abhimanyu, Onkar; 12 Evergreen Court, Westfield, NJ 07090 (US). SCHULZ, Donald, Norman; 36 Valley Crest Road, Annandale, NJ 08801 (US). COOK, Raymond, Arnold; 2419 South Court, Bethlehem, PA 18017 (US). MATTURRO, Michael, Gerard; 41 York Street, Lambertville, NJ 08530 (US). (74) Agents: PURWIN, Paul, E. et al.; ExxonMobil Research and Engineering Company, P.O. Box 390, Florham Park, NJ 07932-0390 (US).		(81) Designated States: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZA, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, 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. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: PARAFFIN-SOLUBLE POLYMERS AND COPOLYMERS (57) Abstract The invention is related to non-linear, paraffin-soluble olefin/carbon monoxide and olefin/acetylene/carbon monoxide copolymers. The invention is also related to a method for preparing olefin/carbon monoxide copolymers by heating a feed of at least one olefin, carbon monoxide, carbon dioxide, hydrogen, and methane in the presence of a free radical polymerization initiator. More particularly, the feed comprises at least one olefin, the total olefin amount ranging from about 5 to about 40 mole %, carbon monoxide in an amount ranging from about 1 to about 40 mole %, hydrogen in an amount ranging from about 4 to about 55 mole %, carbon dioxide in an amount ranging from about 3 to about 10 mole %, and methane in an amount ranging from about 4 to about 85 mole %. The feed may also include acetylene in an amount ranging up to about 10 mole %.		