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(71) Applicant (for all designated States except US):
EXXONMOBIL CHEMICAL PATENTS INC.
[US/US]; A Corporation Of The State Of Delaware, 5200
Bayway Drive, Baytown, TX 77520 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SHAFFER, Timothy, D.** [US/US]; 99 Russling Road, Hackettstown, NJ 07840 (US). **DAVIS, Deborah, Jean** [US/US]; 7642 Rainbow Bend Drive, Pasadena, TX 77505 (US). **STOKES, James, P.** [US/US]; 2615 Domineco Lane, Katy, TX 77450 (US).

(74) Agents: **KRAWCZYK, Nancy, T.** et al.; ExxonMobil Chemical Company, P.O. Box 2149, Baytown, TX 77522-2149 (US).

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(54) Title: METHODS OF PRODUCTION OF ALKYLSTYRENE/ISOOLEFIN POLYMERS

(57) Abstract: Copolymer are formed by polymerizing C₄ to C₇ isoolefin monomers and alkyl-styrene monomers. The method comprises first providing feed streams into a reactor. The various feed streams provide monomers, a polar diluent or polar diluent mixture, and a catalyst system into the reactor. In the reactor, the feed streams contact one another so that the monomers form a polymer in a stable slurry, wherein the amount of polymer in the slurry yields a slurry concentration greater than 22 wt%. The ratio of moles of polymer formed per mole initiator is in the range of 0.25 to 4.0 moles polymer per mole of initiator.



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