PRODUCING POLYOLEFIN PRODUCTS WITH IMPROVED STIFFNESS, TOUGHNESS, AND PROCESSABILITY

ABSTRACT

Polymers, and systems and methods for making and using the same are described herein. A polymer includes ethylene and at least one alpha olefin having from 4 to 20 carbon atoms. The polymer is formed by a trimmed catalyst system including a supported catalyst including bis(n-propylcyclopentadienyl) hafnium $(R_1)(R_2)$ and a trim catalyst comprising meso-$O(SiMe_2Ind)_2Zr(R_1)(R_2)$, wherein R_1 and R_2 are each, independently, methyl, chloro, fluoro, or a hydrocarbyl group.

(Fig. 1)