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(54) Title: MODIFIED ZIEGLER-NATTA (PRO)CATALYST AND SYSTEM

(57) Abstract: A modified Ziegler-Natta procatalyst that is a product mixture of modifying an initial Ziegler-Natta procatalyst with a molecular (pro)catalyst, and optionally an activator, the modifying occurring before activating the modified Ziegler-Natta procatalyst with an activator and before contacting the modified Ziegler-Natta procatalyst with a polymerizable olefin. Also, a modified catalyst system prepared therefrom, methods of preparing the modified Ziegler-Natta procatalyst and the modified catalyst system, a method of polymerizing an olefin using the modified catalyst system, and a polyolefin product made thereby.

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