

Polymerization of heterophasic propylene copolymer with $\text{Me}_2\text{Si}(2\text{-Me-4-PhInd})_2\text{ZrCl}_2$
supported on SiO_2 and $\text{SiO}_2\text{-MgCl}_2$ carriers

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Among the in reactor blending of isotactic polypropylene (iPP) with other polyolefins, studies show that sequential polymerization is the most efficient method for impact strength improvement. In this study, $\text{Me}_2\text{Si}(2\text{-Me-4-PhInd})_2\text{ZrCl}_2$ was supported on $\text{SiO}_2/\text{MgCl}_2$ binary support after surface treatment with various aluminum alkyl compounds such as trimethylaluminum (TMA), triethylaluminum (TEAL), and triisobutylaluminum (TIBA). The synthesized metallocene bi-supported catalyst was used for the polymerization of ethylene and propylene, characterized using BET, ICP, XPS, and SEM in order to compare the different aluminum alkyl used.