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LIST OF ABBREVIATIONS

Al/Cr	aluminum/chromium ratio
DMA	dynamic mechanical analysis
DSC	differential scanning calorimetry
ΔH	melting enthalpy (J/g)
E'	storage modulus (Pa)
E''	loss modulus (Pa)
FTIR	Fourier transfer infrared spectroscopy
HDPE	high density polyethylene
k_i	Initiation Rate Constant
k_p	Propagation Rate Constant
k_t	Termination Rate Constant
LDPE	low density polyethylene
LLDPE	Linear Low Density Polyethylene
M_u^*	Complex Viscosity (MPa.sec)
NMR	nuclear magnetic resonance spectroscopy
PE	polyethylene
P	Pressure (kPa)
R	universal gas constant
SEM	scanning electron microscopy
T	temperature(°C)
T_g	Glass transition
TGA	Thermogravimetry analyses
T_m	melt temperature (°C)
T_c	Crystallization Temperature (°C)
Tan delta (Tan δ)	Ratio of the Loss Modulus (E'') and Storage Modulus (E')
X_c^1	Crystallinity estimated from the DSC data
X_g	mass susceptibility
X_m	molar susceptibility
M_w	molecular weight of the chromium complexes
X_m^{corr}	corrected molar susceptibility
X_{dia}	diamagnetic susceptibility
W_c	Crystallinity estimated from the density
Z-N	Ziegler-Natta

α	Alpha Transition
β	Beta Transition
γ	Gamma transition
ρ	polymer density
μ_{eff}	magnetic susceptibility of the chromium complex