

Title (en)
POLYETHYLENE AND PROCESS FOR PRODUCTION THEREOF

Title (de)
POLYETHYLEN UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
POLYÉTHYLÈNE ET SON PROCÉDÉ DE FABRICATION

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Application
EP 11855376 A 20111014

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Abstract (en)
[origin: WO2012096698A2] This invention relates to a process for polymerizing olefins in which the amount of trimethylaluminum in a methylalumoxane solution is adjusted to be from 1 to 25 mol%, prior to use as an activator, where the mol% trimethylaluminum is determined by ¹H NMR of the solution prior to combination with any support. This invention also relates to a process for polymerizing olefins in which the amount of an unknown species present in a methylalumoxane solution is adjusted to be from 0.10 to 0.65 integration units prior to use as an activator, where the amount of the unknown species is determined by the ¹H NMR spectra of the solution performed prior to combination with any support. Preferably, the methylalumoxane solution is present in a catalyst system also comprising a metallocene transition metal compound.

IPC 8 full level
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C-Set (source: EP)
1. **C08F 210/16 + C08F 210/14 + C08F 2500/03 + C08F 2500/11 + C08F 2500/20 + C08F 2500/26**
2. **C08F 210/16 + C08F 4/65912**

Citation (search report)
• [X] WO 2009082546 A2 20090702 - EXXONMOBIL CHEM PATENTS INC [US], et al
• [X] US 2005282980 A1 20051222 - SZUL JOHN F [US], et al
• [X] EP 1650231 A1 20060426 - TOTAL PETROCHEMICALS RES FELUY [BE]
• [AD] IMHOFF D W ET AL: "Characterization of methylaluminoxanes and determination of trimethylaluminum using proton NMR", ORGANOMETALLICS, ACS, WASHINGTON, DC, US, vol. 17, 11 May 1998 (1998-05-11), pages 1941 - 1945, XP002234016, ISSN: 0276-7333, DOI: 10.1021/OM980046P
• [X] REDDY S S ET AL: "ROLE OF TRIMETHYLALUMINUM ON THE ZIRCONOCENE-METHYLALUMINOXANE- CATALYZED POLYMERIZATION OF ETHYLENE", MACROMOLECULES, AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC; US, vol. 26, no. 5, 1 January 1993 (1993-01-01), pages 1180 - 1182, XP002048572, ISSN: 0024-9297, DOI: 10.1021/MA00057A044
• [X] VINCENZO BUSICO ET AL: "Hafnocenes and MAO: Beware of Trimethylaluminum!", MACROMOLECULES, vol. 42, no. 6, 24 March 2009 (2009-03-24), pages 1789 - 1791, XP055003610, ISSN: 0024-9297, DOI: 10.1021/ma900066n

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