

Title (en)

METALLOCENE DIMER SELECTIVE CATALYSTS AND PROCESSES TO PRODUCE POLY ALPHA-OLEFIN DIMERS

Title (de)

METALLOCENDIMERENSELEKTIVE KATALYSATOREN UND VERFAHREN ZUR HERSTELLUNG VON POLYALPHA-OLEFIN-DIMEREN

Title (fr)

CATALYSEURS MÉTALLOCÈNES SÉLECTIFS DE DIMÈRES ET PROCÉDÉS DE PRODUCTION DE DIMÈRES DE POLY ALPHA-OLÉFINES

Publication

EP 3853273 A4 20220831 (EN)

Application

EP 19862626 A 20190809

Priority

- US 201862732311 P 20180917
- US 201916270085 A 20190207
- US 2019046015 W 20190809

Abstract (en)

[origin: WO2020060690A1] The present disclosure generally relates to processes to produce alpha-olefin oligomers and poly alpha-olefins. In an embodiment, the present disclosure provides a process to produce a poly alpha-olefin (PAO), the process including: introducing a C6-C32 alpha-olefin and a catalyst system comprising activator and a metallocene compound into a continuous stirred tank reactor or a continuous tubular reactor under reaction conditions, wherein the alpha-olefin is introduced to the reactor at a flow rate of about 100 g/hr or more; and obtaining a product comprising PAO dimer and optional higher oligomers of alpha-olefin, or a combination thereof, the PAO dimer comprising 96 mol% or more of vinylidene, based on total moles of vinylidene, disubstituted vinylene, and trisubstituted vinylene in the product. In at least one embodiment, a process includes functionalizing and/or hydrogenating a PAO product of the present disclosure. In at least one embodiment, a blend includes a PAO product of the present disclosure.

IPC 8 full level

C08F 4/6592 (2006.01); **C07C 2/22** (2006.01); **C07C 2/34** (2006.01); **C07F 17/00** (2006.01); **C08F 2/06** (2006.01); **C08F 10/14** (2006.01); **C10M 107/10** (2006.01)

CPC (source: CN EP)

B01J 31/2295 (2013.01 - CN); **C07C 2/22** (2013.01 - EP); **C07C 2/26** (2013.01 - EP); **C07C 2/34** (2013.01 - CN EP); **C07C 2/66** (2013.01 - CN); **C07C 5/03** (2013.01 - EP); **C07C 41/30** (2013.01 - CN); **C10M 105/06** (2013.01 - CN); **C10M 105/18** (2013.01 - CN); **C10M 107/10** (2013.01 - CN EP); **B01J 2231/20** (2013.01 - CN); **B01J 2531/0225** (2013.01 - CN); **B01J 2531/49** (2013.01 - CN); **C07C 2523/755** (2013.01 - EP); **C07C 2529/08** (2013.01 - CN); **C07C 2531/22** (2013.01 - CN EP); **C08F 4/65908** (2013.01 - EP); **C08F 4/65912** (2013.01 - EP); **C08F 2420/07** (2021.01 - EP); **C10M 2205/028** (2013.01 - EP); **C10M 2205/0285** (2013.01 - CN EP); **C10N 2020/02** (2013.01 - EP); **C10N 2030/02** (2013.01 - EP); **C10N 2030/06** (2013.01 - EP); **C10N 2030/10** (2013.01 - EP); **C10N 2030/74** (2020.05 - EP); **C10N 2040/04** (2013.01 - EP); **C10N 2040/14** (2013.01 - EP); **C10N 2040/25** (2013.01 - EP); **C10N 2040/30** (2013.01 - EP)

C-Set (source: CN EP)

CN

1. **C07C 2/34 + C07C 11/02**
2. **C07C 2/66 + C07C 15/24**
3. **C07C 41/30 + C07C 43/205**

EP

1. **C08F 110/14 + C08F 4/65925**
2. **C08F 110/14 + C08F 4/14**
3. **C07C 5/03 + C07C 9/22**
4. **C07C 2/34 + C07C 11/02**
5. **C08F 110/14 + C08F 2500/02 + C08F 2500/17 + C08F 2500/29**

Citation (search report)

- No further relevant documents disclosed
- See references of WO 2020060690A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2020060690 A1 20200326; CN 112912357 A 20210604; CN 112912357 B 20240604; CN 113015755 A 20210622; CN 113015755 B 20230908; CN 113039221 A 20210625; CN 113039221 B 20230718; EP 3853191 A2 20210728; EP 3853191 A4 20220824; EP 3853272 A1 20210728; EP 3853272 A4 20220824; EP 3853273 A1 20210728; EP 3853273 A4 20220831; WO 2020060691 A1 20200326; WO 2020060692 A2 20200326; WO 2020060692 A3 20201022; WO 2020060692 A8 20201210

DOCDB simple family (application)

US 2019046015 W 20190809; CN 201980069814 A 20190809; CN 201980074749 A 20190809; CN 201980074751 A 20190809; EP 19861876 A 20190809; EP 19862626 A 20190809; EP 19863138 A 20190809; US 2019046017 W 20190809; US 2019046024 W 20190809