

Title (en)
CONTROLLING MOLECULAR WEIGHT DISTRIBUTION AND CHEMICAL COMPOSITION DISTRIBUTION OF A POLYOLEFIN PRODUCT

Title (de)
STEUERUNG DER MOLEKULARGEWICHTSVERTEILUNG UND DER CHEMISCHEN ZUSAMMENSETZUNGSVERTEILUNG EINES POLYOLEFINPRODUKTS

Title (fr)
RÉGULATION DE LA DISTRIBUTION DE POIDS MOLÉCULAIRE ET DE LA DISTRIBUTION DE COMPOSITION CHIMIQUE D'UN PRODUIT DE POLYOLÉFINE

Publication
EP 3946713 A1 20220209 (EN)

Application
EP 20718116 A 20200324

Priority
• US 201962829871 P 20190405
• EP 19173841 A 20190510
• US 2020024449 W 20200324

Abstract (en)
[origin: WO2020205337A1] A method broadening a molecular weight distribution and/or broadening a chemical composition distribution of the polyolefin product can include: polymerizing a feedstock in the presence of a metallocene catalyst in a loop reactor to produce a polyolefin product, the feedstock comprising two or more monomers; and adjusting a polymerization parameter selected from the group consisting of decreasing a recycle ratio, increasing a polymer concentration, increasing a LRSU number, and any combination thereof.

IPC 8 full level
B01J 19/00 (2006.01); **C08F 210/06** (2006.01); **G05B 13/00** (2006.01)

CPC (source: EP)
B01J 19/2435 (2013.01); **C08F 2/14** (2013.01); **C08F 210/06** (2013.01); **B01J 2219/00081** (2013.01)

C-Set (source: EP)
1. **C08F 210/06 + C08F 2/14**
2. **C08F 210/06 + C08F 4/659**
3. **C08F 210/06 + C08F 210/02**

Citation (search report)
• [X] US 9493589 B1 20161115 - GRECO JEFF F [US], et al
• [X] WO 9736942 A1 19971009 - DOW CHEMICAL CO [US], et al
• [X] US 2010160579 A1 20100624 - YANG QING [US], et al
• [I] ZHENG-HONG LUO ET AL: "Mathematical modeling of the molecular weight distribution of polypropylene produced in a loop reactor", POLYMER ENGINEERING AND SCIENCE., vol. 47, no. 10, 12 September 2007 (2007-09-12), US, pages 1643 - 1649, XP055625513, ISSN: 0032-3888, DOI: 10.1002/pen.20848

Citation (examination)
• WO 2006101597 A1 20060928 - DOW GLOBAL TECHNOLOGIES INC [US], et al
• JORGE JARDIM ZACCA ET AL: "MODELLING OF THE LIQUID PHASE POLYMERIZATION OF OLEFINS IN LOOP REACTORS", CHEMICAL ENGINEERING SCIENCE, OXFORD, GB, vol. 48, no. 22, 1 November 1993 (1993-11-01), pages 3743 - 3765, XP008017504, ISSN: 0009-2509, DOI: 10.1016/0009-2509(93)80218-F
• See also references of WO 2020205337A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2020205337 A1 20201008; CN 113646074 A 20211112; CN 113646074 B 20230509; EP 3946713 A1 20220209; SG 11202110447S A 20211028

DOCDB simple family (application)
US 2020024449 W 20200324; CN 202080026008 A 20200324; EP 20718116 A 20200324; SG 11202110447S A 20200324