

Title (en)

POLYAZIRIDINE POLYMERS AS LUBRICATING OIL ADDITIVES

Title (de)

POLYAZIRIDINPOLYMERE ALS SCHMIERÖLADDITIVE

Title (fr)

POLYMÈRES DE POLYAZIRIDINE EN TANT QU'ADDITIFS D'HUILE LUBRIFIANTE

Publication

**EP 3739026 A1 20201118 (EN)**

Application

**EP 19174838 A 20190516**

Priority

EP 19174838 A 20190516

Abstract (en)

The invention relates to a lubricating oil composition comprising a polyaziridine polymer, a process for preparing such lubricating oil composition and the use thereof as a lubricating oil additive for reducing friction in a transmission fluid, an engine oil formulation, a gear oil formulation, an axle fluid or in a hydraulic fluid.

IPC 8 full level

**C10M 151/04** (2006.01)

CPC (source: CN EP)

**C10M 151/04** (2013.01 - CN EP); **C10M 2221/04** (2013.01 - CN EP); **C10N 2030/06** (2013.01 - EP); **C10N 2040/04** (2013.01 - EP); **C10N 2040/042** (2020.05 - EP); **C10N 2040/044** (2020.05 - EP); **C10N 2040/045** (2020.05 - EP); **C10N 2040/08** (2013.01 - EP); **C10N 2040/25** (2013.01 - EP)

Citation (applicant)

- "Chemistry and Technology of Lubricants", 2010, SPRINGER SCIENCE+BUSINESS MEDIA B.V.
- "Polym. Chem.", vol. 8, 2017, article "The living anionic polymerization of activated aziridines: a systematic study of reaction conditions and kinetics", pages: 2824 - 2832
- "Multihydroxy Polyamines by Living Anionic Polymerization of Aziridines", ACS MACRO LETT., vol. 5, 2016, pages 195 - 198
- "Organocatalytic Ring-Opening Polymerization of N-Tosyl Aziridines by a N-Heterocyclic Carbene", CHEM. COMMUN., vol. 72, 2016, pages 9719 - 9722
- E. RIEGER: "Sequence-Controlled Polymers via Simultaneous Living Anionic Copolymerization of Competing Monomers", MACROMOL. RAPID COMMUN., vol. 37, 2016, pages 833 - 839

Citation (search report)

- [A] EP 3257921 A1 20171220 - INFINEUM INT LTD [GB]
- [A] XIN WANG ET AL: "Organocatalyzed Anionic Ring-Opening Polymerizations of N -Sulfonyl Aziridines with Organic Superbases", ACS MACRO LETTERS, vol. 6, no. 12, 14 November 2017 (2017-11-14), pages 1331 - 1336, XP055634449, ISSN: 2161-1653, DOI: 10.1021/acsmacrolett.7b00775

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)

**EP 3739026 A1 20201118**; **EP 3739026 B1 20210630**; CN 111944584 A 20201117; CN 111944584 B 20221122; JP 2020186387 A 20201119; JP 7508266 B2 20240701; SG 10202004309Q A 20201230

DOCDB simple family (application)

**EP 19174838 A 20190516**; CN 202010405525 A 20200514; JP 2020086320 A 20200515; SG 10202004309Q A 20200511