

Title (en)

ADDITIVES FOR IMPROVING THERMAL STABILITY OF FUELS

Title (de)

ADDITIVE ZUR VERBESSERUNG DER THERMISCHEN STABILITÄT VON KRAFTSTOFFEN

Title (fr)

ADDITIFS POUR AMÉLIORER LA STABILITÉ THERMIQUE DE CARBURANTS

Publication

**EP 4382588 A1 20240612 (DE)**

Application

**EP 22211629 A 20221206**

Priority

EP 22211629 A 20221206

Abstract (de)

Die vorliegende Erfindung betrifft die Verwendung bestimmter Polymere als Kraftstoff- oder Schmierstoffadditiv zur Verbesserung der Stabilität von Kraftstoffen, sowie damit additivierte Kraft- und Schmierstoffe, besonders Dieselmotorkraftstoffe und ganz besonders solche, enthaltend Biobrennstofföle.

IPC 8 full level

**C10L 1/16** (2006.01); **C10L 1/195** (2006.01); **C10L 1/196** (2006.01); **C10L 1/197** (2006.01); **C10L 1/236** (2006.01); **C10L 1/183** (2006.01); **C10L 1/222** (2006.01); **C10L 1/223** (2006.01); **C10L 1/232** (2006.01)

CPC (source: EP)

**C10L 1/143** (2013.01); **C10L 1/146** (2013.01); **C10L 10/04** (2013.01); **C10L 10/18** (2013.01); **C10L 1/1832** (2013.01); **C10L 1/1966** (2013.01); **C10L 1/1973** (2013.01); **C10L 1/198** (2013.01); **C10L 1/2222** (2013.01); **C10L 1/223** (2013.01); **C10L 1/232** (2013.01); **C10L 1/233** (2013.01); **C10L 1/2362** (2013.01); **C10L 1/2364** (2013.01); **C10L 1/2366** (2013.01); **C10L 1/2368** (2013.01); **C10L 1/2383** (2013.01); **C10L 2200/0446** (2013.01); **C10L 2200/0476** (2013.01); **C10L 2230/081** (2013.01); **C10L 2230/22** (2013.01); **C10L 2270/026** (2013.01)

Citation (applicant)

- WO 2014195464 A1 20141211 - BASF SE [DE]
- WO 2012004300 A1 20120112 - BASF SE [DE], et al
- WO 2015113681 A1 20150806 - BASF SE [DE]
- WO 2018114348 A1 20180628 - BASF SE [DE]
- WO 2012004300 A1 20120112 - BASF SE [DE], et al
- WO 2006135881 A2 20061221 - LUBRIZOL CORP [US], et al
- WO 2010132259 A1 20101118 - LUBRIZOL CORP [US], et al
- WO 2008060888 A2 20080522 - LUBRIZOL CORP [US], et al
- WO 2011095819 A1 20110811 - INNOSPEC LTD [GB], et al
- GB 2496514 A 20130515 - AFTON CHEMICAL CORP [US]
- WO 2013117616 A1 20130815 - BASF SE [DE], et al
- WO 2014202425 A2 20141224 - BASF SE [DE]
- WO 2014195464 A1 20141211 - BASF SE [DE]
- WO 2015040147 A1 20150326 - BASF SE [DE]
- WO 2014064151 A1 20140501 - BASF SE [DE]
- WO 2013064689 A1 20130510 - BASF SE [DE]
- WO 2013087701 A1 20130620 - BASF SE [DE]
- WO 2013000997 A1 20130103 - BASF SE [DE], et al
- EP 0244616 A2 19871111 - BASF AG [DE]
- WO 9424231 A1 19941027 - BASF AG [DE], et al
- WO 9703946 A1 19970206 - BASF AG [DE], et al
- DE 19620262 A1 19971127 - BASF AG [DE]
- WO 9603367 A1 19960208 - BASF AG [DE], et al
- WO 9603479 A1 19960208 - BASF AG [DE], et al
- EP 0476485 A1 19920325 - BASF AG [DE]
- EP 0307815 A1 19890322 - BASF AG [DE]
- WO 8701126 A1 19870226 - LUBRIZOL CORP [US]
- EP 0639632 A1 19950222 - OEMV AG [AT]
- EP 0310875 A1 19890412 - BASF AG [DE]
- EP 0356725 A1 19900307 - BASF AG [DE]
- EP 0700985 A1 19960313 - BASF AG [DE]
- US 4877416 A 19891031 - CAMPBELL CURTIS B [US]
- DE 3838918 A1 19900523 - BASF AG [DE]
- EP 0831141 A1 19980325 - BP CHEMICALS ADDITIVES [GB]
- DE 3826608 A1 19900208 - BASF AG [DE]
- DE 4142241 A1 19930624 - BASF AG [DE]
- DE 4309074 A1 19940922 - BASF AG [DE]
- EP 0452328 A1 19911023 - CHEVRON RES & TECH [US]
- EP 0548617 A2 19930630 - BASF AG [DE]
- DE 10102913 A1 20020725 - BASF AG [DE]
- WO 9929748 A1 19990617 - BASF AG [DE], et al
- WO 2005054314 A2 20050616 - BASF AG [DE], et al
- WO 2004035715 A1 20040429 - BASF AG [DE], et al
- EP 0061895 A2 19821006 - EXXON RESEARCH ENGINEERING CO [US]
- US 4491455 A 19850101 - ISHIZAKI TAKAHARU [JP], et al
- WO 9318115 A1 19930916 - EXXON CHEMICAL PATENTS INC [US]
- EP 0261957 A2 19880330 - EXXON CHEMICAL PATENTS INC [US]
- WO 0044857 A2 20000803 - INFINEUM USA LP [US], et al
- WO 9804656 A1 19980205 - ELF ANTAR FRANCE [FR], et al
- US 6743266 B2 20040601 - DEROSA THOMAS F [US], et al

- WO 0047698 A1 20000817 - BASF AG [DE], et al
- WO 2012004300 A1 20120112 - BASF SE [DE], et al
- WO 2014195464 A1 20141211 - BASF SE [DE]
- WO 2015113681 A1 20150806 - BASF SE [DE]
- CAS, no. 6683-19-8
- "Lubricant Additives, Chemistry and Applications", 2009, CRC PRESS
- N. A. PLATEV. P. SHIBAEV: "Comb-Like Polymers. Structure and Properties", J. POLY. SCI. MACROMOLECULAR REVS., vol. 8, 1974, pages 117 - 253
- CAS , no. 112-69-6

Citation (search report)

- [X] WO 2022106301 A1 20220527 - BASF SE [DE]
- [XDI] WO 2018114348 A1 20180628 - BASF SE [DE]
- [AD] WO 2014195464 A1 20141211 - BASF SE [DE]

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4382588 A1 20240612**

DOCDB simple family (application)

**EP 22211629 A 20221206**