

Title (en)

Fuels, for spark-ignition engines, containing polyether amines

Title (de)

Polyetheramine enthaltende Kraftstoffe für Ottomotoren

Title (fr)

Combustibles, pour moteurs à allumage par étincelles, contenant des polyetheramines

Publication

EP 0700985 A1 19960313 (DE)

Application

EP 95113660 A 19950831

Priority

DE 4432038 A 19940909

Abstract (en)

A fuel contains small amts. of polyetheramines of formula $R^1-(O\text{Bu})_n\text{-NR}^2\text{R}^3$ (I), $R^1 = 2\text{-}30\text{C}$ alkyl, R^2 and $R^3 = \text{H}$, $1\text{-}8\text{C}$ alkyl, aminoalkylene of formula $\text{-R}^4\text{-NR}^5$ (II) or polyaminoalkylene of formula $\text{-(R}^4\text{-NR}^5\text{)}_m\text{-R}^6$ (III). $R^4 = 2\text{-}10\text{C}$ alkylene, R^5 and $R^6 = \text{H}$ or $1\text{-}8\text{C}$ alkyl, Bu - butylene residue derived from butylene oxide, and $n = 12\text{-}28$.

Abstract (de)

Kraftstoffe für Ottomotoren, enthaltend geringe Mengen von Polyetheraminen I $R^1(O\text{Bu})_n\text{NR}^2\text{R}^3$ wobei R^1 : einen C2- bis C30-Alkylrest bezeichnet, R^2 und R^3 : unabhängig voneinander Wasserstoff, C1- bis C8-Alkyl, einen Aminoalkylenrest der allgemeinen Formel II $\text{R}^4\text{-NR}^5$ oder einen Polyaminoalkylenrest der allgemeinen Formel III $\text{(R}^4\text{-NR}^5\text{)}_m\text{-R}^6$ in denen R^4 für einen C2- bis C10-Alkylrest steht, R^5 und R^6 unabhängig voneinander Wasserstoff oder C1- bis C8-Alkyl bedeuten und m eine Zahl von 2 bis 8 bezeichnet, bedeuten, Bu: einen aus Butylenoxid stammenden Butylenrest bezeichnet und; n: für eine Zahl von 12 bis 28 steht.

IPC 1-7

C10L 1/22; **C10L 10/00**

IPC 8 full level

C10L 1/234 (2006.01); **C10L 1/14** (2006.01); **C10L 1/22** (2006.01); **C10L 1/222** (2006.01); **C10L 1/238** (2006.01); **C10L 10/00** (2006.01); **C10L 10/04** (2006.01); **C10L 1/16** (2006.01); **C10L 1/18** (2006.01)

CPC (source: EP US)

C10L 1/143 (2013.01 - EP US); **C10L 1/238** (2013.01 - EP US); **C10L 10/04** (2013.01 - EP US); **C10L 10/06** (2013.01 - EP US); **C10L 1/1616** (2013.01 - EP US); **C10L 1/1641** (2013.01 - EP US); **C10L 1/1832** (2013.01 - EP US); **C10L 1/188** (2013.01 - EP US); **C10L 1/1881** (2013.01 - EP US); **C10L 1/1905** (2013.01 - EP US); **C10L 1/1985** (2013.01 - EP US); **C10L 1/2222** (2013.01 - EP US); **C10L 1/223** (2013.01 - EP US); **C10L 1/232** (2013.01 - EP US); **C10L 1/2335** (2013.01 - EP US); **C10L 1/2383** (2013.01 - EP US)

Citation (applicant)

EP 0310875 A1 19890412 - BASF AG [DE]

Citation (search report)

- [DX] EP 0310875 A1 19890412 - BASF AG [DE]
- [X] US 4247301 A 19810127 - HONNEN LEWIS R
- [PX] DE 4309074 A1 19940922 - BASF AG [DE]
- [X] EP 0100665 A2 19840215 - CHEVRON RES [US]
- [A] EP 0440248 A1 19910807 - KAO CORP [JP]

Cited by

EP1122295A4; WO2015148361A1; DE102008037662A1; DE102022131356A1; WO2022017912A1; DE102022131890A1; WO2024017743A1; WO2011134923A1; WO2011151207A1; EP2883944A1; DE12016000150U1; WO2018188986A1; US11085001B2; US7601185B2; WO2012076428A1; EP3263563A1; EP4269541A1; US9434900B2; EP4105301A1; WO2022263254A1; EP2267104A2; EP2272821A2; US8551365B2; US8858838B2; WO2018007486A1; US10062471B2; WO2013117616A1; WO2014023853A2; EP2949733A1; WO2018007375A1; WO2021078753A1; WO2022263244A1; WO2023052286A1; WO2014064151A1; EP2811007A1; US10173963B2; US10689326B2; WO2009095443A1; WO202228989A1; WO2023111550A1; EP2270119A1; US8790426B2; US9315759B2; US9562202B2; US9670430B2; WO2018007445A1; EP3736317A1; EP3933014A1; EP4382588A1; WO2024149635A1; WO2015113681A1; WO2018114350A1; EP3363879A2; US10294436B2; US10927319B2; US11168273B2; WO2022128569A2; EP4163353A1; US11634654B2; WO2012163935A2; WO2013174619A1; WO2015007553A1; WO2017050777A1; US9688791B2; WO2018188982A1; WO2020007790A1; US10808195B2; WO2020260062A1; US11130923B2; WO202228990A1; US11499107B2; DE102010039039A1; US8911516B2; WO2015058993A2; US9388354B2; WO2017093203A1; US9951285B2; US9957455B2; US10119085B2; US10240100B2; US10377958B2; US10550346B2; WO2021063733A1; EP3940043A1; US7850744B2; WO2012004300A1; WO2012072643A2; EP2589647A1; WO2013064689A1; US8814957B2; EP2808350A1; EP3327044A1; WO2018114348A1; EP3747915A1; EP4406982A2; WO2012072723A2; WO2014184066A1; US9006158B2; EP2891699A1; US9296841B2; US9359570B2; US9862904B2; EP3483234A1; US10370610B2; US10745496B2; US10815444B2; US11306161B2; DE102010001408A1; EP2540808A1; WO2013000997A1; WO2014019911A1; WO2015058992A1; US9062266B2; EP3241882A1; US9951288B2; US10030206B2; US10465138B2; EP3945126A1; WO2022106301A1; DE102022132342A1; WO2024083782A1; US7753970B2; WO2011161149A1; EP2604674A1; WO2013087701A1; US8486876B2; WO2015003961A1; WO2015091458A1; WO2016135036A1; US9587195B2; EP3205705A1; WO2017144378A1; DE212015000271U1; WO2018007191A1; WO2018007192A1; WO2018108534A1; US10174269B2; US10407634B2; EP3653689A1; US10676685B2; US10844308B2; US10858608B2; US10947467B2; US11078418B2; US11111449B2; WO2009050287A1; WO2022161803A1; US11566196B2; EP4190882A1; EP4219667A2; US11912950B2; EP4442792A2; EP2270119B1

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