

Search query (2): [SP]: cross-reference to related applicationthis application is a national stage application (under 35 u.s.c. 371) of pct/ep2014/076772, filed dec. 5, 2014, which claims benefit of european application no. 13197065.9, filed dec. 13, 2013, both of which are incorporated herein by reference in their entirety.the present invention relates to a process for producing mineral oil from underground mineral oil deposits, in which an aqueous formulation comprising at least one water-soluble, hydrophobically associating copolymer is injected through at least one injection well into a mineral oil deposit having a deposit temperature of 20 degrees centigrade to 120 degrees centigrade and crude oil is withdrawn from the deposit through at least one production well, wherein the water-soluble copolymer comprises at least acrylamide and/or derivatives thereof and a mixture comprising at least two amphiphilic macromonomers.in natural mineral oil deposits, mineral oil is present in the cavities of porous reservoir rocks sealed toward the surface of the earth by impervious overlying strata. the cavities may be very fine cavities, capillaries, pores or the like. fine pore necks may have, for example, a diameter of only about 1 micro m. as well as mineral oil, including fractions of natural gas, a deposit generally also comprises water of greater or lesser salt content.if a mineral oil deposit has a sufficient autogenous pressure, after drilling of the deposit has commenced, mineral oil flows through the well to the surface of its own accord because of the autogenous pressure (primary mineral oil production). even if a sufficient autogenous pressure is present at first, however, the autogenous pressure of the deposit generally declines relatively rapidly in the course of withdrawal of mineral oil, and so usually only small amounts of the amount of mineral oil present in deposit can be produced in this manner, according to the deposit type.therefore, when primary production declines, a known method is to drill further wells into the mineral oil-bearing formation in addition to the wells which serve for production of the mineral oil, called the production wells. through these so-called injection wells, water is injected into the deposit in order to maintain the pressure or increase it again. the injection of the water forces the mineral oil through the cavities in the formation, proceeding gradually from the injection well in the direction of the production well. this technique is known as water flooding and is one of the techniques of what is called secondary oil production. in water flooding, however, there is always the risk that the mobile water will not flow homogeneously through the formation and in doing so mobilize oil, but will flow from the injection well to the production well, particularly along paths with a low flow resistance, without mobilizing oil, while there is only little flow, if any, through regions in the formation with high flow resistance. this is discerned from the fact that the proportion of the water which is produced via the production well increases ever further. by means of primary and secondary production, generally not more than about 30 to 35 percent of the amount of mineral oil present in the deposit can be produced.a known method is to use techniques for tertiary mineral oil production (also known as "enhanced oil recovery (eor)") to enhance the oil yield, if economically viable production is impossible or no longer possible by means of primary or secondary mineral oil production. tertiary mineral oil production includes processes in which suitable chemicals, such as surfactants and/or polymers, are used as auxiliaries for oil production. a review of tertiary oil production using chemicals can be found, for example, in the article by d. g. kessel, journal of petroleum science and engineering, 2 (1989) 81-101.the techniques of tertiary mineral oil production include what is called "polymer flooding". polymer flooding involves injecting an aqueous solution of a thickening polymer into the mineral oil deposit through the injection wells, the viscosity of the aqueous polymer solution being matched to the viscosity of the mineral oil. through the injection of the polymer solution, the mineral oil, as in the case of water flooding, is forced through said cavities in the formation from the injection well proceeding in the direction of the production well, and the mineral oil is produced through the production well. by virtue of the polymer formulation having about the same viscosity as the mineral oil, the risk that the polymer formation will break through to the production well with no effect is reduced. thus, the mineral oil is mobilized much more homogeneously than when water, which is mobile, is used, and additional mineral oil can be mobilized in the formation. details of polymer flooding and of polymers suitable for this purpose are disclosed, for example, in "petroleum, enhanced oil recovery, kirk-othmer, encyclopedia of chemical technology, online edition, john wiley and sons, 2010".a known method is to use hydrophobically associating copolymers for polymer flooding. "hydrophobically associating copolymers" are understood by the person skilled in the art to mean water-soluble polymers having lateral or terminal hydrophobic groups, for example relatively long alkyl chains. in aqueous solution, hydrophobic groups of this kind can associate with one another or with other substances having hydrophobic groups. this forms an associative network which causes an (additional) thickening effect. details of the use of hydrophobically associating copolymers for tertiary mineral oil production are described, for example, in the review article by taylor, k. c. and nasr-el-din, h. a. in j. petr. sci. eng. 1998, 19, 265-280.wo 85/03510 a1 discloses water-soluble, hydrophobically associating copolymers having a weight-average molecular weight mw of 800 000 g/mol to 3 million g/mol and the use thereof for tertiary mineral oil production. the copolymers comprise 40 to 99.9 mol percent of acrylamide, 0 to 50 mol percent of acrylic acid and 0.1 to 10 mol percent of the macromonomer h2c-ch-coo-(eo)5-40-r where eo represents ethyleneoxy groups and r is an alkyl radical having 8 to 16 carbon atoms.wo 2006/002936 a1 discloses water-soluble copolymers consisting of (meth)acrylamide, (meth)acrylamide modified with sulfo groups, for example atbs, and allyl ethers or acrylates comprising polyalkoxy groups. the polyalkoxy groups may comprise a terminal hydrocarbyl group having 10 to 40 carbon atoms. the document further discloses the use of such copolymers as an additive for aqueous building materials systems, for example cement, lime or gypsum.wo 2010/133527 a2 discloses hydrophobically associating copolymers and the use thereof for tertiary mineral oil production. the copolymers comprise 25 to 99.9 percent by weight of monoethylenically unsaturated, hydrophilic monomers, for example acrylamide or acrylic acid, and 0.1 to 20 percent by weight of at least one macromonomer of the general formula h2c-ch-r-o-(eo)10-150(ao)5-15r' where eo represents ethyleneoxy groups, ao represents alkyleneoxy groups having at least 4 carbon atoms, r is a linking group and r' is h or a hydrocarbyl radical having 1 to 30 carbon atoms. wo 2011/015520 a1 discloses a process for preparing hydrophobically associating copolymers of this kind by polymerization in aqueous solution in the presence of surfactants.wo 2012/069477 a1 discloses a process for tertiary mineral oil production from mineral oil formations having a deposit temperature of 35 to 120 degrees centigrade, preferably 40 degrees centigrade to 90 degrees centigrade, in which a hydrophobically associating copolymer comprising 0.1 to 15 percent by weight of the above-described macromonomer h2c-ch-r-o-(eo)10-150(ao)5-15r' and 85 to 99.9 percent by weight of acrylamide or acrylamide derivatives and monoethylenically unsaturated monomers having cooh, so3h or po3h2 groups is used. eo, ao, r and r' are each as defined above. the weight-average molecular weight mw of the copolymer is 1 million to 3 million g/mol. particular preference is given to a copolymer comprising acrylamide, 2-acrylamido-2-methylpropanesulfonic acid (atbs) and said macromonomer.wo 2012/069478 a1 discloses a process for tertiary mineral oil production, in which the copolymer described by wo 2012/069477 a1 is used. the formulation used has a viscosity of at least 5 mpas and is injected into the formation at a shear rate of at least 30 000 s-1.our prior european application wo 2014/095608 a1 discloses a process for preparing macromonomers h2c-ch-r-o-(eo)10-150(ao)5-25(eo)0-15r' where eo represents ethyleneoxy groups, ao represents alkyleneoxy groups having at least 4 carbon atoms, r is a linking group and r' is h or a hydrocarbyl radical having 1 to 4 carbon atoms. in the process, an alcohol h2c-ch-r-oh s ethoxylated and alkoxylated using a basic catalyst comprising kome and/or naome, the alkoxylation with alkylene oxides being conducted at a temperature of less than or equal to 135 degrees centigrade and the amount of k+ ions being not more than 0.9 mol percent based on the alcohol. this affords macromonomers having particularly low proportions of crosslinking by-products. the application further discloses a macromonomer obtainable by means of the process, copolymers comprising the macromonomer, and the use thereof for oilfield applications.our prior european application wo 2014/095621 a1 discloses hydrophobically associating copo

Results: 23

Search history

Search PN=(WO2015086468) (Results 1)

1:

Search [SP]: cross-reference to related applicationthis application is a national stage application (under 35 u.s.c. 371) of pct/ep2014/076772, filed dec. 5, 2014, which claims benefit of european application no. 13197065.9, filed dec. 13, 2013, both of which are incorporated herein by reference in their entirety.the present invention relates to a process for producing mineral oil from underground mineral oil deposits, in which an aqueous formulation comprising at least one water-soluble, hydrophobically associating copolymer is injected through at least one injection well into a mineral oil deposit having a deposit temperature of 20 degrees centigrade to 120 degrees centigrade and crude oil is withdrawn from the deposit through at least one production well, wherein the water-soluble copolymer comprises at least acrylamide and/or derivatives thereof and a mixture comprising at least two amphiphilic macromonomers.in natural mineral oil deposits, mineral oil is present in the cavities of porous reservoir rocks sealed toward the surface of the earth by impervious overlying strata. the cavities may be very fine cavities, capillaries, pores or the like. fine pore necks may have, for example, a diameter of only about 1 micro m. as well as mineral oil, including fractions of natural gas, a deposit generally also comprises water of greater or lesser salt content.if a mineral oil deposit has a sufficient autogenous pressure, after drilling of the deposit has commenced, mineral oil flows through the well to the surface of its own accord because of the autogenous pressure (primary mineral oil production). even if a sufficient autogenous pressure is present at first, however, the autogenous pressure of the deposit generally declines relatively rapidly in the course of withdrawal of mineral oil, and so usually only small amounts of the amount of mineral oil present in deposit can be produced in this manner, according to the deposit type.therefore, when primary production declines, a known method is to drill further wells into the mineral oil-bearing formation in addition to the wells which serve for production of the mineral oil, called the production wells. through these so-called injection wells, water is injected into the deposit in order to maintain the pressure or increase it again. the injection of the water forces the mineral oil through the cavities in the formation, proceeding gradually from the injection well in the direction of the production well. this technique is known as water flooding and is one of the techniques of what is called secondary oil production. in water flooding, however, there is always the risk that the mobile water will not flow homogeneously through the formation and in doing so mobilize oil, but will flow from the injection well to the production well, particularly along paths with a low flow resistance, without mobilizing oil, while there is only little flow, if any, through regions in the formation with high flow resistance. this is discerned from the fact that the proportion of the water which is produced via the

production well increases ever further. by means of primary and secondary production, generally not more than about 30 to 35 percent of the amount of mineral oil present in the deposit can be produced. a known method is to use techniques for tertiary mineral oil production (also known as "enhanced oil recovery (eor)") to enhance the oil yield, if economically viable production is impossible or no longer possible by means of primary or secondary mineral oil production. tertiary mineral oil production includes processes in which suitable chemicals, such as surfactants and/or polymers, are used as auxiliaries for oil production. a review of tertiary oil production using chemicals can be found, for example, in the article by d. g. kessel, journal of petroleum science and engineering, 2 (1989) 81-101. the techniques of tertiary mineral oil production include what is called "polymer flooding". polymer flooding involves injecting an aqueous solution of a thickening polymer into the mineral oil deposit through the injection wells, the viscosity of the aqueous polymer solution being matched to the viscosity of the mineral oil. through the injection of the polymer solution, the mineral oil, as in the case of water flooding, is forced through said cavities in the formation from the injection well proceeding in the direction of the production well, and the mineral oil is produced through the production well. by virtue of the polymer formulation having about the same viscosity as the mineral oil, the risk that the polymer formation will break through to the production well with no effect is reduced. thus, the mineral oil is mobilized much more homogeneously than when water, which is mobile, is used, and additional mineral oil can be mobilized in the formation. details of polymer flooding and of polymers suitable for this purpose are disclosed, for example, in "petroleum, enhanced oil recovery, kirk-othmer, encyclopedia of chemical technology, online edition, john wiley and sons, 2010". a known method is to use hydrophobically associating copolymers for polymer flooding. "hydrophobically associating copolymers" are understood by the person skilled in the art to mean water-soluble polymers having lateral or terminal hydrophobic groups, for example relatively long alkyl chains. in aqueous solution, hydrophobic groups of this kind can associate with one another or with other substances having hydrophobic groups. this forms an associative network which causes an (additional) thickening effect. details of the use of hydrophobically associating copolymers for tertiary mineral oil production are described, for example, in the review article by taylor, k. c. and nasr-el-din, h. a. in j. petr. sci. eng. 1998, 19, 265-280. wo 85/03510 a1 discloses water-soluble, hydrophobically associating copolymers having a weight-average molecular weight mw of 800 000 g/mol to 3 million g/mol and the use thereof for tertiary mineral oil production. the copolymers comprise 40 to 99.9 mol percent of acrylamide, 0 to 50 mol percent of acrylic acid and 0.1 to 10 mol percent of the macromonomer h2c-ch-coo-(eo)5-40-r where eo represents ethyleneoxy groups and r is an alkyl radical having 8 to 16 carbon atoms. wo 2006/002936 a1 discloses water-soluble copolymers consisting of (meth)acrylamide, (meth)acrylamide modified with sulfo groups, for example atbs, and allyl ethers or acrylates comprising polyalkoxy groups. the polyalkoxy groups may comprise a terminal hydrocarbyl group having 10 to 40 carbon atoms. the document further discloses the use of such copolymers as an additive for aqueous building materials systems, for example cement, lime or gypsum. wo 2010/133527 a2 discloses hydrophobically associating copolymers and the use thereof for tertiary mineral oil production. the copolymers comprise 25 to 99.9 percent by weight of monoethylenically unsaturated, hydrophilic monomers, for example acrylamide or acrylic acid, and 0.1 to 20 percent by weight of at least one macromonomer of the general formula h2c-ch-r-o-(eo)10-150(ao)5-15r' where eo represents ethyleneoxy groups, ao represents alkyleneoxy groups having at least 4 carbon atoms, r is a linking group and r' is h or a hydrocarbyl radical having 1 to 30 carbon atoms. wo 2011/015520 a1 discloses a process for preparing hydrophobically associating copolymers of this kind by polymerization in aqueous solution in the presence of surfactants. wo 2012/069477 a1 discloses a process for tertiary mineral oil production from mineral oil formations having a deposit temperature of 35 to 120 degrees centigrade, preferably 40 degrees centigrade to 90 degrees centigrade, in which a hydrophobically associating copolymer comprising 0.1 to 15 percent by weight of the above-described macromonomer h2c-ch-r-o-(eo)10-150(ao)5-15r' and 85 to 99.9 percent by weight of acrylamide or acrylamide derivatives and monoethylenically unsaturated monomers having cooh, so3h or po3h2 groups is used. eo, ao, r and r' are each as defined above. the weight-average molecular weight mw of the copolymer is 1 million to 3 million g/mol. particular preference is given to a copolymer comprising acrylamide, 2-acrylamido-2-methylpropanesulfonic acid (atbs) and said macromonomer. wo 2012/069478 a1 discloses a process for tertiary mineral oil production, in which the copolymer described by wo 2012/069477 a1 is used. the formulation used has a viscosity of at least 5 mpas and is injected into the formation at a shear rate of at least 30 000 s-1. our prior european application wo 2014/095608 a1 discloses a process for preparing macromonomers h2c-ch-r-o-(eo)10-150(ao)5-25(eo)0-15r' where eo represents ethyleneoxy groups, ao represents alkyleneoxy groups having at least 4 carbon atoms, r is a linking group and r' is h or a hydrocarbyl radical having 1 to 4 carbon atoms. in the process, an alcohol h2c-ch-r-oh is ethoxylated and alkoxyated using a basic catalyst comprising kome and/or naome, the alkoxylation with alkylene oxides being conducted at a temperature of less than or equal to 135 degrees centigrade and the amount of k+ ions being not more than 0.9 mol percent based on the alcohol. this affords macromonomers having particularly low proportions of crosslinking by-products. the application further discloses a macromonomer obtainable by means of the process, copolymers comprising the macromonomer, and the use thereof for oilfield applications. our prior european application wo 2014/095621 a1 discloses hydrophobically associating copo

(Results 23)

Title: Flocculating.

Abstract: Source: GB1054028A [EN] 1,054,028. Flocculating. BADISCHE ANILIN- and SODA-FABRIK A.G. Oct. 30, 1963 [Nov. 7, 1962], No. 42774/63. Heading C1C. [Also in Divisions B1 and C3] A water-soluble polymer suitable for use as a flocculating agent for finely divided coal or ore suspensions comprises a copolymer of acrylamide, acrylic acid and vinylsulphonic acid having a relative viscosity of 7A1 in 0A1 percent aq. solution. A water-soluble copolymer obtained from acrylamide and sodium vinylsulphonate and having a K-value of 155 is also said to be suitable as a flocculating agent.

Classifications:

International (IPC 8-9): B01J4/00 C08F2/00

C08F2/04 (Advanced/Invention);

B01J4/00 C08F2/00 C08F2/04 (Core/Invention)

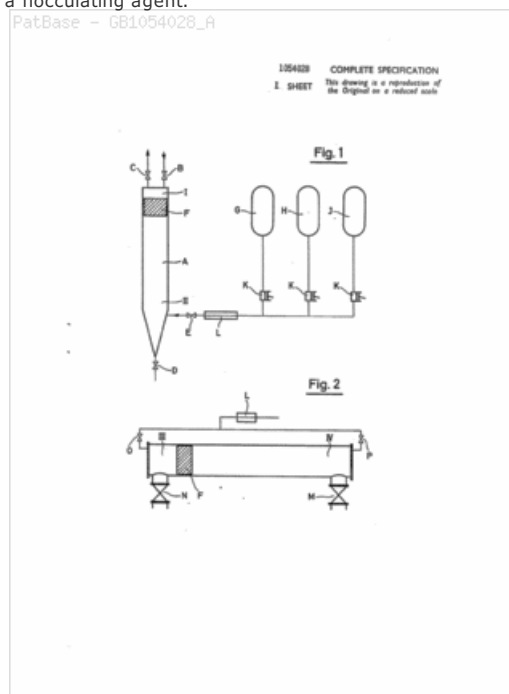
International (IPC 1-7): B01D21/01 B03D1/02 C08F2/00 C08F2/04

C08F20/06 C08F20/10 C08F20/56 C08F220/00 C08F220/56

CPC: B01J4/008

European: B01J4/00D

PatBase - GB1054028_A



Family:

Publication number	Publication date	Application number	Application date
DE1218157 B	19660602	DE1962B069529	19621107
GB1054028 A	19670104	GB19630042774	19631030

Priority:

DE1962B069529 19621107

Probable Assignee: BASF SE

Assignee(s): (std): BASF AG ; BASF SE

Assignee(s): BADISCHE ANILIN AND SODA FABRIK AG ; BADISCHE ANILIN AND SODA FABRIK AKTIENGESELLSCHAFT

Inventor(s): (std): SPOOR DR HERBERT ; POHLEMANN DR HEINZ ; HEIL DIPL ING EDUARD

Title: HYDROPHOBIC ASSOCIATIVE COMPOSITION CONTAINING A POLYMER OF A WATER-SOLUBLE MONOMER AND AN AMPHIPHILIC MONOMER

Abstract: Source: US4921902A [EN] A hydrophobe associative composition of an ethylenically unsaturated, water-soluble monomer such as acrylamide and an ethylenically unsaturated amphiphilic monomer such as dodecyl poly(oxyethylene)10 methacrylate which is particularly effective for increasing the viscosity of brines or other aqueous media containing salts or other electrolytes. Such copolymers are therefor useful in mobility control fluids and fracturing fluids for enhanced oil recovery and as drag reduction agents.

Classifications:

International (IPC 8-9): C08F20/00 C08F20/52 C08F220/20 C08F220/56 C08F246/00 C08F8/00 C08F8/44 C08K3/16 C08L33/24 C08L33/26 (Advanced/Invention); C08F20/00 C08F8/00 (Advanced/Non-invention); C08F20/00 C08F220/00 C08F246/00 C08F8/00 C08K3/00 C08L33/00 (Core/Invention)

International (IPC 1-7): C08F220/06 C08F220/20 C08F220/28 C08F220/56 C08F8/44 C08K3/16 C08L33/10 C08L33/24 C08L33/26 C08L59/00 C09K7/02 C10M

CPC: Y10S507/922 Y10S507/936 C08F246/00 C08F220/56 C09K8/68 C09K8/882 C09K8/588 Y10T137/0391

European: C08F220/56 C08F246/00 C09K8/68 C09K8/88A

US: 137/13 507/225 507/922 507/936 524/555 526/304 526/307.5 526/307.6 526/307.7 526/317.5 526/320

PatBase - SU1588285_A3

1

1588285

4

и вод. с целью повышения вязкости, в качестве гидрофобного компонента она содержит сополимер 99,90-99,975 мол.% акриламида и 0,025-0,1 мол.% дидецилового метакрилата, метакрилата с вязкостью 0,25-ного раствора сополимера при 25°C по Бруннауэру 1000-1300 сПз, где n - число оксидных групп в боковой цепи сополимера, равное 10, 15 или 20, при следующем соотношении компонентов, мол.%:

Вязкоупругий сополимер 0,2-0,5
Хлористый натрий 1-4
Вода Остальное

Сополимер	Вязкость, мПа·с			Легкость разбавления, г			Вязкость раствора, сПз
	AM	LCM	AA	AM	LCM	AA	
A	99,90	0,091(1)	0	23,44	47,28	0	238,4
B	99,90	0,091(2)	0	23,44	47,28	0	238,4
C	99,975	0,025(1)	0	23,44	47,28	0	238,4
D	99,975	0,025(2)	0	23,44	47,28	0	238,4
E	99,90	0,091(1)	0	23,44	47,28	0	238,4
F	99,90	0,091(2)	0	23,44	47,28	0	238,4
G	99,975	0,025(1)	0	23,44	47,28	0	238,4
H	99,975	0,025(2)	0	23,44	47,28	0	238,4
I	99,90	0,091(1)	0	23,44	47,28	0	238,4
J	99,90	0,091(2)	0	23,44	47,28	0	238,4
K	99,975	0,025(1)	0	23,44	47,28	0	238,4
L	99,975	0,025(2)	0	23,44	47,28	0	238,4
M	99,90	0,091(1)	0	23,44	47,28	0	238,4
N	99,90	0,091(2)	0	23,44	47,28	0	238,4
O	99,975	0,025(1)	0	23,44	47,28	0	238,4
P	99,975	0,025(2)	0	23,44	47,28	0	238,4
Q	99,90	0,091(1)	0	23,44	47,28	0	238,4
R	99,90	0,091(2)	0	23,44	47,28	0	238,4
S	99,975	0,025(1)	0	23,44	47,28	0	238,4
T	99,975	0,025(2)	0	23,44	47,28	0	238,4
U	99,90	0,091(1)	0	23,44	47,28	0	238,4
V	99,90	0,091(2)	0	23,44	47,28	0	238,4
W	99,975	0,025(1)	0	23,44	47,28	0	238,4
X	99,975	0,025(2)	0	23,44	47,28	0	238,4
Y	99,90	0,091(1)	0	23,44	47,28	0	238,4
Z	99,90	0,091(2)	0	23,44	47,28	0	238,4
AA	99,975	0,025(1)	0	23,44	47,28	0	238,4
AB	99,975	0,025(2)	0	23,44	47,28	0	238,4
AC	99,90	0,091(1)	0	23,44	47,28	0	238,4
AD	99,90	0,091(2)	0	23,44	47,28	0	238,4
AE	99,975	0,025(1)	0	23,44	47,28	0	238,4
AF	99,975	0,025(2)	0	23,44	47,28	0	238,4
AG	99,90	0,091(1)	0	23,44	47,28	0	238,4
AH	99,90	0,091(2)	0	23,44	47,28	0	238,4
AI	99,975	0,025(1)	0	23,44	47,28	0	238,4
AJ	99,975	0,025(2)	0	23,44	47,28	0	238,4
AK	99,90	0,091(1)	0	23,44	47,28	0	238,4
AL	99,90	0,091(2)	0	23,44	47,28	0	238,4
AM	99,975	0,025(1)	0	23,44	47,28	0	238,4
AN	99,975	0,025(2)	0	23,44	47,28	0	238,4
AO	99,90	0,091(1)	0	23,44	47,28	0	238,4
AP	99,90	0,091(2)	0	23,44	47,28	0	238,4
AQ	99,975	0,025(1)	0	23,44	47,28	0	238,4
AR	99,975	0,025(2)	0	23,44	47,28	0	238,4
AS	99,90	0,091(1)	0	23,44	47,28	0	238,4
AT	99,90	0,091(2)	0	23,44	47,28	0	238,4
AU	99,975	0,025(1)	0	23,44	47,28	0	238,4
AV	99,975	0,025(2)	0	23,44	47,28	0	238,4
AW	99,90	0,091(1)	0	23,44	47,28	0	238,4
AX	99,90	0,091(2)	0	23,44	47,28	0	238,4
AY	99,975	0,025(1)	0	23,44	47,28	0	238,4
AZ	99,975	0,025(2)	0	23,44	47,28	0	238,4
BA	99,90	0,091(1)	0	23,44	47,28	0	238,4
BB	99,90	0,091(2)	0	23,44	47,28	0	238,4
BC	99,975	0,025(1)	0	23,44	47,28	0	238,4
BD	99,975	0,025(2)	0	23,44	47,28	0	238,4
BE	99,90	0,091(1)	0	23,44	47,28	0	238,4
BF	99,90	0,091(2)	0	23,44	47,28	0	238,4
BG	99,975	0,025(1)	0	23,44	47,28	0	238,4
BH	99,975	0,025(2)	0	23,44	47,28	0	238,4
BI	99,90	0,091(1)	0	23,44	47,28	0	238,4
BJ	99,90	0,091(2)	0	23,44	47,28	0	238,4
BK	99,975	0,025(1)	0	23,44	47,28	0	238,4
BL	99,975	0,025(2)	0	23,44	47,28	0	238,4
BM	99,90	0,091(1)	0	23,44	47,28	0	238,4
BN	99,90	0,091(2)	0	23,44	47,28	0	238,4
BO	99,975	0,025(1)	0	23,44	47,28	0	238,4
BP	99,975	0,025(2)	0	23,44	47,28	0	238,4
BQ	99,90	0,091(1)	0	23,44	47,28	0	238,4
BR	99,90	0,091(2)	0	23,44	47,28	0	238,4
BS	99,975	0,025(1)	0	23,44	47,28	0	238,4
BT	99,975	0,025(2)	0	23,44	47,28	0	238,4
BU	99,90	0,091(1)	0	23,44	47,28	0	238,4
BV	99,90	0,091(2)	0	23,44	47,28	0	238,4
BW	99,975	0,025(1)	0	23,44	47,28	0	238,4
BX	99,975	0,025(2)	0	23,44	47,28	0	238,4
BY	99,90	0,091(1)	0	23,44	47,28	0	238,4
BZ	99,90	0,091(2)	0	23,44	47,28	0	238,4
CA	99,975	0,025(1)	0	23,44	47,28	0	238,4
CB	99,975	0,025(2)	0	23,44	47,28	0	238,4
CC	99,90	0,091(1)	0	23,44	47,28	0	238,4
CD	99,90	0,091(2)	0	23,44	47,28	0	238,4
CE	99,975	0,025(1)	0	23,44	47,28	0	238,4
CF	99,975	0,025(2)	0	23,44	47,28	0	238,4
CG	99,90	0,091(1)	0	23,44	47,28	0	238,4
CH	99,90	0,091(2)	0	23,44	47,28	0	238,4
CI	99,975	0,025(1)	0	23,44	47,28	0	238,4
CJ	99,975	0,025(2)	0	23,44	47,28	0	238,4
CK	99,90	0,091(1)	0	23,44	47,28	0	238,4
CL	99,90	0,091(2)	0	23,44	47,28	0	238,4
CM	99,975	0,025(1)	0	23,44	47,28	0	238,4
CN	99,975	0,025(2)	0	23,44	47,28	0	238,4
CO	99,90	0,091(1)	0	23,44	47,28	0	238,4
CP	99,90	0,091(2)	0	23,44	47,28	0	238,4
CQ	99,975	0,025(1)	0	23,44	47,28	0	238,4
CR	99,975	0,025(2)	0	23,44	47,28	0	238,4
CS	99,90	0,091(1)	0	23,44	47,28	0	238,4
CT	99,90	0,091(2)	0	23,44	47,28	0	238,4
CU	99,975	0,025(1)	0	23,44	47,28	0	238,4
CV	99,975	0,025(2)	0	23,44	47,28	0	238,4
CW	99,90	0,091(1)	0	23,44	47,28	0	238,4
CX	99,90	0,091(2)	0	23,44	47,28	0	238,4
CY	99,975	0,025(1)	0	23,44	47,28	0	238,4
CZ	99,975	0,025(2)	0	23,44	47,28	0	238,4
DA	99,90	0,091(1)	0	23,44	47,28	0	238,4
DB	99,90	0,091(2)	0	23,44	47,28	0	238,4
DC	99,975	0,025(1)	0	23,44	47,28	0	238,4
DD	99,975	0,025(2)	0	23,44	47,28	0	238,4
DE	99,90	0,091(1)	0	23,44	47,28	0	238,4
DF	99,90	0,091(2)	0	23,44	47,28	0	238,4
DG	99,975	0,025(1)	0	23,44	47,28	0	238,4
DH	99,975	0,025(2)	0	23,44	47,28	0	238,4
DI	99,90	0,091(1)	0	23,44	47,28	0	238,4
DJ	99,90	0,091(2)	0	23,44	47,28	0	238,4
DK	99,975	0,025(1)	0	23,44	47,28	0	238,4
DL	99,975	0,025(2)	0	23,44	47,28	0	238,4
DM	99,90	0,091(1)	0	23,44	47,28	0	238,4
DN	99,90	0,091(2)	0	23,44	47,28	0	238,4
DO	99,975	0,025(1)	0	23,44	47,28	0	238,4
DP	99,975	0,025(2)	0	23,44	47,28	0	238,4
DQ	99,90	0,091(1)	0	23,44	47,28	0	238,4
DR	99,90	0,091(2)	0	23,44	47,28	0	238,4
DS	99,975	0,025(1)	0	23,44	47,28	0	238,4
DT	99,975	0,025(2)	0	23,44	47,28	0	238,4
DU	99,90	0,091(1)	0	23,44	47,28	0	238,4
DV	99,90	0,091(2)	0	23,44	47,28	0	238,4
DW	99,975	0,025(1)	0	23,44	47,28	0	238,4
DX	99,975	0,025(2)	0	23,44	47,28	0	238,4
DY	99,90	0,091(1)	0	23,44	47,28	0	238,4
DZ	99,90	0,091(2)	0	23,44	47,28	0	238,4
EA	99,975	0,025(1)	0	23,44	47,28	0	238,4
EB	99,975	0,025(2)	0	23,44	47,28	0	238,4
EC	99,90	0,091(1)	0	23,44	47,28	0	238,4
ED	99,90	0,091(2)	0	23,44	47,28	0	238,4
EE	99,975	0,025(1)	0	23,44	47,28	0	238,4
EF	99,975	0,025(2)	0	23,44	47,28	0	238,4
EG	99,90	0,091(1)	0	23,44	47,28	0	238,4
EH	99,90	0,091(2)	0	23,44	47,28	0	238,4
EI	99,975	0,025(1)	0	23,44	47,28	0	238,4
EJ	99,975	0,025(2)	0	23,44	47,28	0	238,4
EK	99,90	0,091(1)	0	23,44	47,28	0	238,4
EL	99,90	0,091(2)	0	23,44	47,28	0	238,4
EM	99,975	0,025(1)	0	23,44	47,28	0	238,4
EN	99,975	0,025(2)	0	23,44	47,28	0	238,4
EO	99,90	0,091(1)	0	23,44	47,28	0	238,4
EP	99,90	0,091(2)	0	23,44	47,28	0	238,4
EQ	99,975	0,025(1)	0	23,44	47,28	0	238,4
ER	99,975	0,025(2)	0	23,44	47,28	0	238,4
ES	99,90	0,091(1)	0	23,44	47,28	0	238,4
ET	99,90	0,091(2)	0	23,44	47,28	0	238,4
EU	99,975	0,025(1)	0	23,44	47,28	0	238,4
EV	99,975	0,025(2)	0	23,44	47,28	0	238,4
EW	99,90	0,091(1)	0	23,44	47,28	0	238,4
EX	99,90	0,091(2)	0	23,44	47,28	0	238,4
EY	99,975	0,025(1)	0	23,44	47,28	0	238,4
EZ	99,975	0,025(2)	0	23,44	47,28	0	238,4
FA	99,90	0,091(1)	0	23,44	47,28	0	238,4
FB	99,90	0,091(2)	0	23,44	47,28	0	238,4
FC	99,975	0,025(1)	0	23,44	47,28	0	238,4
FD	99,975	0,					

Agent(s): PHILLIPS ORMONDE FITZPATRICK; SMART AND BIGGAR

Designated states: AU BE BR CF CG CH CM DE DK FR GA GB JP LI ML MR NL NO SE SN SU TD TG

Title: PREPARATION OF ALKOXYLATION PRODUCTS IN THE PRESENCE OF MIXED HYDROXIDES MODIFIED WITH ADDITIVES

Abstract: Source: US5741947A [EN] PCT No. PCT/EP94/02195 Sec. 371 Date Jan. 29, 1996 Sec. 102(e) Date Jan. 29, 1996 PCT Filed Jul. 5, 1994 PCT Pub. No. WO95/04024 PCT Pub. Date Feb. 9, 1995 Alkoxylation products are prepared by reacting compounds having active hydrogen atoms with C2-C4-alkylene oxides in the presence of a mixed hydroxide built up of polycations and modified with additives and having the general formula I or II [M(II)_{1-x}M(III)_x(OH)₂]A_x/n_xm L(I) [LiAl₂(OH)₆]A₁/n_xm L(II) where M(II) is at least one divalent metal ion, M(III) is at least one trivalent metal ion, A is at least one inorganic anion and L is an organic solvent or water, n is the valence of the inorganic anion A or in the case of a plurality of anions A is their mean valence and x can assume a value of from 0.1 to 0.5 and m can assume a value of from 0 to 10, as alkoxylation catalyst, wherein the mixed hydroxide contains additives.

Classifications:

International (IPC 8-9): B01J27/232 C01B13/14 C01F7/00 C01F7/04 C01F7/16 C01F7/76 C01G9/00 C07B61/00 C07C41/02 C07C41/03 C07C43/11 (Advanced/Invention); B01J27/20 C01B13/14 C01F7/00 C01G9/00 C07B61/00 C07C41/00 C07C43/00 (Core/Invention)

International (IPC 1-7): B01J27/232 B01J27/236 B01J31/02 B01J31/04 B01J31/26 C01B13/14 C01F7/00 C01F7/04 C01F7/16 C01F7/76 C01G1/00 C07B41/04 C07B61/00 C07C41/02 C07C41/03 C07C43/11

CPC: C01G9/006 C01F7/004 C07C41/03

European: C01F7/00D2 C01G9/00D C07C41/03

US: 502/341 554/149 556/28 568/618

Family:

Publication number	Publication date	Application number	Application date
AT172707 E	19981115	AT19940924233T	19940705
CN1131412 A	19960918	CN19941093463	19940705
DE4325237 A1	19950202	DE19934325237	19930728
DE59407185 D1	19981203	DE19945007185	19940705
EP0711268 A1	19960515	EP19940924233	19940705
EP0711268 B1	19981028	EP19940924233	19940705
ES2123151 T3	19990101	ES19940924233T	19940705
JP9503750 T2	19970415	JP19950505517T	19940705
US5741947 A	19980421	US19960586803	19960129
WO9504024 A1	19950209	WO1994EP02195	19940705

Priority:

DE19934325237 19930728 DE19945007185 19940705 WO1994EP02195 19940705

Probable Assignee: BASF SE

Assignee(s): (std): WOLF GERHARD ; BURKHART BERND ; LAUTH GUENTER ; TRAPP HORST ; OFTRING ALFRED ; BASF SE ; BASF AG

Assignee(s): BASF AG 67063 LUDWIGSHAFEN DE ; BASF AKTIENGESELLSCHAFT ; BASF 67063 LUDWIGSHAFEN DE AG

Inventor(s): (std): BERND B ; BURKHART BERND ; BURKHART BERND DR ; LAUTH G ; LAUTH GUENTER ; LAUTH GUENTER DR ; OFTRING ALFRED ; OFTRING ALFRED DR ; TRAPP HORST ; TRAPP HORST DR ; WOLF G ; WOLF GERHARD ; WOLF GERHARD DR ; G LAUTH

Inventor(s): B BERND ; WOLF GERHARD DR 68775 KETSCH DE ; G WOLF ; WOLF GERHARD D 68775 KETSCH DE ; TRAPP HORST DR 68723 PLANKSTADT DE ; TRAPP HORST D 68723 PLANKSTADT DE ; OFTRING ALFRED DR 67098 BAD DUERKHEIM DE ; OFTRING ALFRED D 67098 BAD DUERKHEIM DE ; LAUTH GUENTER DR 67229 GROSSKARLBACH DE ; LAUTH GUENTER D 67229 GROSSKARLBACH DE ; BURKHART BERND DR 67112 MUTTERSTADT DE ; BURKHART BERND D 67112 MUTTERSTADT DE

Designated states: AT BE CA CH CN DE DK ES FR GB GR IE IT JP LI LU MC NL PT SE US

Title: Preparation of high molecular weight polymers

Abstract: Source: US5633329A [EN] Process for the preparing high molecular weight polymers by polymerization of water-soluble, monoethylenically unsaturated monomers and, if desired, crosslinkers, and, if desired, water-insoluble monoethylenically unsaturated monomers, in aqueous solution in the presence of polymerization initiators in a tubular reaction which at the end has a conical taper, the ratio of the diameter of the reactor (D1) to the diameter at the end of the conical taper of the reactor (D2) being from 2:1 to 25:1 and the angle between D1 at the beginning of the conical taper and the inner cone wall being >45 DEG and <90 DEG, and discharge of the gelatinous reaction mixture from the reactor by injection of an inert gas.

Classifications:

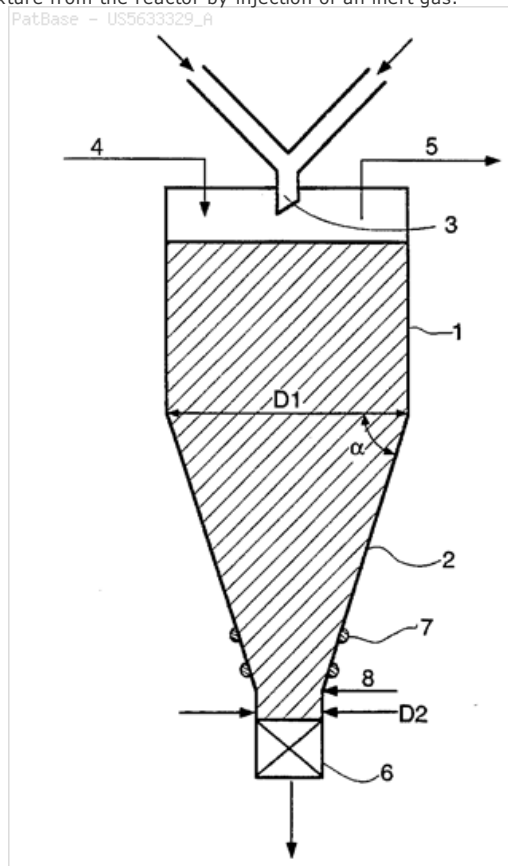
International (IPC 8-9): B01D21/01 B01J19/00 B01J19/24 C02F1/56 C08F2/00 C08F2/10 C08F2/16 C08F20/00 C08F4/04 (Advanced/Invention); B01D21/01 B01J19/00 B01J19/24 C02F1/54 C08F2/00 C08F2/04 C08F2/12 C08F20/00 C08F4/00 (Core/Invention)

International (IPC 1-7): B01D21/01 B01J19/0 B01J19/00 C02F1/56 C08F2/0 C08F2/00 C08F2/10 C08F2/18 C08F20/0 C08F20/00 C08F20/06 C08F20/34 C08F20/56 C08F265/00 C08F4/04 C08F4/28 C08F4/40 C08J3/075 C08L33/00 D21H21/10

CPC: B01D21/01 B01J19/24 B01J2219/00049 B01J2219/0009 B01J2219/00182 B01J2219/1946 C02F1/56 C08F2/10

European: B01D21/01 B01J19/24 C02F1/56 C08F2/10 L01J219/00B L01J219/00B16 L01J219/00B2D4B L01J219/194B8

US: 526/317.1 526/329.7 526/64



Family:

Publication number	Publication date	Application number	Application date
DE19502939 A1	19960801	DE19951002939	19950131
DE59600721 D1	19981203	DE19965000721	19960123
EP0725084 A1	19960807	EP19960100873	19960123
EP0725084 B1	19981028	EP19960100873	19960123
ES2122726 T3	19981216	ES19960100873T	19960123
JP9067404 A2	19970311	JP19960013859	19960130
US5633329 A	19970527	US19960591315	19960125

Priority:

DE19951002939 19950131 DE19965000721 19960123

Probable Assignee: BASF SE

Assignee(s): (std): BASF AG

Assignee(s): BASF AG 67063 LUDWIGSHAFEN DE ; BASF AKTIENGESSELLSCHAFT ; BASF CORP ; BASK AG ; BASF SE

Inventor(s): (std): ANSTOCK THOMAS DR ; HAEHNLE HANS JOACHIM DR ; HAHNLE HANS JOACHIM DR ; MINGES ROLAND DR ; NEUFELD ECKHARD ; SCHORNICK GUNNAR DR ; TROPSCH JUERGEN DR ; TROPSCH JURGEN DR ; YURUGEN TOROPUSHIYU ; ROORANTO MINGESU ; KRAUS HANS JUERGEN ; HANSUUYURUGEN KURAUSU ; HANSUUYOAHIMU HEENRE ; GUNNAARU SHIYORUNITSUKU ; ETSUKUHARUTO NOIFUERUTO ; TROPSCH JUERGEN ; SCHORNICK GUNNAR ; MINGES ROLAND ; HAEHNLE HANS JOACHIM ; ANSTOCK THOMAS ; KRAUSS HANS JUERGEN ; TOOMASU ANSUTOTSUKU

Inventor(s): SCHORNICK GUNNAR DR D 67271 NEULEININGEN DE ; SCHORNICK GUNNAR DR 67271 NEULEININGEN DE ; ANSTOCK THOMAS DR D 67256 WEISENHEIM DE ; ANSTOCK THOMAS DR 67256 WEISENHEIM DE ; HAEHNLE HANS JOACHIM DR D 67069 LUDWIGSHAFEN DE ; HAEHNLE HANS JOACHIM DR 67069 LUDWIGSHAFEN DE ; NEUFELD ECKHARD D 67117 LIMBURGERHOF DE ; NEUFELD ECKHARD 67117 LIMBURGERHOF DE ; MINGES ROLAND DR D 67269 GRUENSTADT DE ; MINGES ROLAND DR 67269 GRUENSTADT DE ; KRAUSS HANS JUERGEN D 68159 MANNHEIM DE ; KRAUS HANS JUERGEN 68159 MANNHEIM DE ; TROPSCH JUERGEN DR D 67354 ROEMERBERG DE ; TROPSCH JUERGEN DR 67122 ALTRIP DE

Designated states: BE DE ES FR GB IT

Title: APPARATUS AN METHOD FOR DEGASSING LIQUIDS

Abstract: Source: US2005223896A [EN] Apparatus and method for degassing liquids particularly cationic monomers. Fluid comprising liquid to be degassed together with sweep gas is admitted tangentially into a column (10) and forced down the column by a tubular baffle (16) which defines, with the inner wall of the column, an annulus (18) that is closed at its top (20). After passing to the bottom of the annulus the fluid forms an even film over the inner surface of the column and gas disengaging from the liquid can rise up the column while liquid accumulates at the bottom of the column. To assist the disengagement of the gas from the liquid the column is preferably of increasing cross section towards the bottom so that the thickness of the film is also reduced.

Classifications:

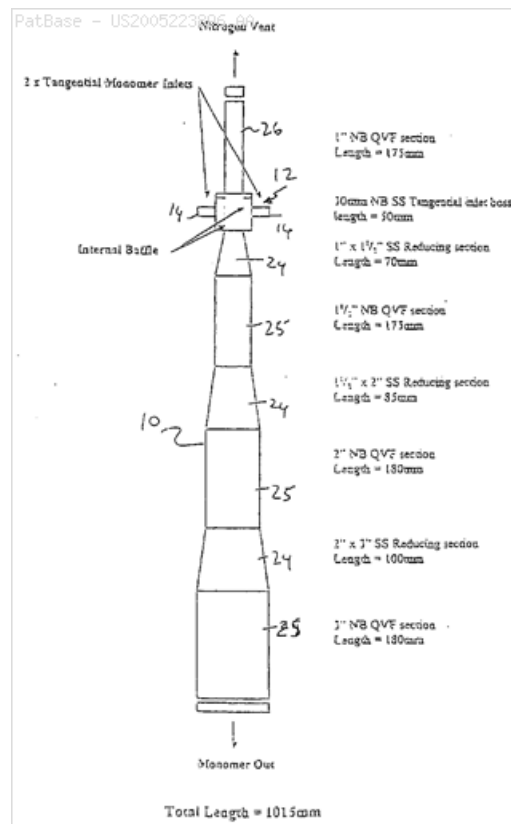
International (IPC 8-9): B01D19/00 (Advanced/Invention);
B01D19/00 (Core/Invention)

International (IPC 1-7): B01D19/00

CPC: B01D19/0005 B01D19/0057

European: B01D19/00B B01D19/00P4B

US: 528/502D 95/245 95/261 95/263 95/265 96/202 96/207 96/211



Family:

Publication number	Publication date	Application number	Application date
AT501771 E	20110415	AT20030714715T	20030123
AU2003218963 AA	20030902	AU20030218963	20030123
BRPI0307480 A	20041207	BR2003PI07480	20030123
BRPI0307480 B1	20110531	BR2003PI07480	20030123
CN1306983 C	20070328	CN20038003542	20030123
CN1630547 A	20050622	CN20038003542	20030123
DE60336382 D1	20110428	DE20036036382	20030123
EP1474217 A1	20041110	EP20030714715	20030123
EP1474217 B1	20110316	EP20030714715	20030123
GB200202990 A0	20020327	GB20020002990	20020208
IN00005082004 A	20060224	IN20040800005	20040805
IN254328 B	20121026	IN2004CN01734	20040805
US2005223896 AA	20051013	US20030502700	20030123
US7255728 BB	20070814	US20030502700	20030123
WO03066190 A1	20030814	WO2003EP00654	20030123

Priority:

GB20020002990 20020208 WO2003EP00654 20030123

Probable Assignee: CIBA SPECIALTY CHEMICALS WATER TREATMENT LTD

Assignee(s): (std): BROUGHTON SIMON ; CIBA SPEC CHEM WATER TREAT LTD ; NAYLOR GARETH I ; VEAL JONATHAN HEATH ; POWELL MARTIN DAVID ; NAYLOR GARETH IAN ; VEAL JONATHAN H ; POWELL MARTIN D

Assignee(s): CIBA SPECIALTY CHEMICALS WATER TREATMENT LTD ; CIBA SPECIALTY CHEMICALS WATER TREATMENTS LIMITED ; CIBA SPECIALTY CHEMICALS WATER TREATMENTS LTD

Inventor(s): (std): DAVID POWELL MARTIN ; HEATH VEAL JONATHAN ; IAN NAYLOR GARETH ; IAN VEAL JONATHAN HEATH POWELL ; NAYLOR GARETH ; NAYLOR GARETH IAN ; POWELL MARTIN ; POWELL MARTIN DAVID ; SIMON BROUGHTON ; VEAL JONATHAN ; VEAL JONATHAN HEATH ; BROUGHTON SIMON ; VEAL JONATHAN H ; NAYLOR GARETH I ; MARTIN DAVID POWELL ; JONATHAN HEATH VEAL ; GARETH IAN NAYLOR ; POWELL MARTIN D

Inventor(s): NAYLOR GARETH IAN 88 WILLOWFIELD ROAD ; BROUGHTON SIMON 236 BROAD LANE ; POWELL MARTIN

DAVID 23 PRIESTLEY DRIVE PUDSEY ; BROUGHTON SIMON ; DAVID BROUGHTON ; VEAL JONATHAN HEATH
POWELL MARTIN DAVID ; VEAL JONATHAN HEATH POWELL MARTIN DAVID BROUGHTONS ; VEAL JONAHAN
HEATH

Agent(s):

DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; CIBA SPECIALTY CHEMICALS PATENT
DEPARTMENT CORP; SHIELA A

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM
DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI
LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SC SD SE SG
SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: ALKOXYLATE MIXTURES AND DETERGENTS CONTAINING THE SAME

Abstract: Source: US2005170991A [EN] The alkoxybate mixture comprises 0.1 to 99.9 percent by weight of at least one alkoxybate of the formula (I) $C_nH_{2n+1}O(A)_x(B)_yH$ (I) where A is ethyleneoxy, B is C_3 - C_{10} -alkyleneoxy or mixtures thereof, where groups A and B may be present randomly distributed, alternately or in the form of two or more blocks in any order, n is an integer in the range from 8 to 11, x is a number in the range from 1 to 20, y is a number in the range from 0 to 10, and 0.1 to 99.9 percent by weight of at least one alkoxybate of the formula (II) $C_mH_{2m+1}O(A)_v(B)_wH$ (II) where A is ethyleneoxy, B is C_3 - C_{10} -alkyleneoxy or mixtures thereof, where groups A and B may be present randomly distributed, alternately or in the form of two or more blocks in any order, m is an integer in the range from 12 to 24, v is a number in the range from 1 to 50, w is a number in the range from 0 to 10.

Classifications:

International (IPC 8-9): C07C41/03 C07C43/11 C08G65/26 C11D1/72

C11D1/722 C11D1/825 C11D3/37 D06L1/12 (Advanced/Invention);

C11D1/72 C11D1/722 (Advanced/Non-invention);

C07C41/00 C07C43/00 C08G65/00 C11D1/72 C11D1/722 C11D1/825 C11D3/37 D06L1/00 (Core/Invention);

C11D1/72 C11D1/722 (Core/Non-invention)

International (IPC 1-7): C07C43/11 C08G65/10 C11D1/66 C11D1/72 C11D1/722 C11D1/825 C11D17/00

CPC: C07C43/11 C07C41/03 C08G65/2663 C11D1/72 C11D1/722 C11D1/825 C11D1/8255

European: C07C41/03 C07C43/11 C08G65/26P1P C11D1/825 C11D1/825B M11D1/72 M11D1/722

US: 510/342 510/360 510/421 510/475 510/505 510/506 8/137 81/37

Pat. C11D1/722 C11D1/825 C11D3/37 D06L1/12 70991_AA

(I)

$C_mH_{2m+1}O(A)_v(B)_wH$

(II)

Family:

Publication number	Publication date	Application number	Application date
AT493374 E	20110115	AT20030718790T	20030425
AU2003222839 AA	20031110	AU20030222839	20030425
BRPI0309548 A	20050201	BR2003PI09548	20030425
BRPI0309548 B1	20131112	BR2003PI09548	20030425
CA2483470 AA	20041025	CA20032483470	20030425
CA2483470 C	20101109	CA20032483470	20030425
CN1312099 C	20070425	CN20038013926	20030425
CN1662482 A	20050831	CN20038013926	20030425
DE10218752 A1	20031113	DE20021018752	20020426
DE10243361 A1	20040401	DE20021043361	20020918
DE50313367 D1	20110210	DE20035013367	20030425
EP1501775 A1	20050202	EP20030718790	20030425
EP1501775 B1	20101229	EP20030718790	20030425
EP1501775 B9	20120926	EP20030718790	20030425
ES2358895 T3	20110516	ES20030718790T	20030425
JP2005528477 T2	20050922	JP20030587758T	20030425
JP4051348 B2	20080220	JP20030587758T	20030425
MXPA04010535 A1	20050125	MX2004PA10535	20030425
US2005170991 AA	20050804	US20040511445	20041026
US7335235 BB	20080226	US20040511445	20041026
WO03091190 A1	20031106	WO2003EP04333	20030425

Priority:

DE20021018752 20020426

DE20021043361 20020918

DE20035013367 20030425

WO2003EP04333 20030425

Probable Assignee: BASF SE

Assignee(s): (std): BASF AG ; BASF CORP ; BASF SE ; RULAND ALFRED ; SCHOLTISSEK MARTIN ; TROPSCH JUERGEN ; BAUR RICHARD

Assignee(s): TROPSCH JURGEN ; BASF AKIENGESELLSCHAFT ; BASF AKTIENGESELLSCHAFT

Inventor(s): (std): ALFRED RULAND ; JURGEN TROPSCH ; MARTIN SCHOLTISSEK ; RICHARD BAUR ; RULAND ALFRED ; TROPSCH JURGEN ; TROPSCH JUERGEN ; SCHOLTISSEK MARTIN ; RICHARD RULAND ALFRED SCHOLTIS ; BAUR RICHARD

Inventor(s): JUERGEN TROPSCH ; RULAND ALFRED SCHOLTISSEK MARTIN TROPSCH JURGEN BAUR RICHARD ; RULAND ALFRED SCHOLTISSEK MARTIN TROPSCH JURGEN BA ; RULAND ALFRED SCHOLTISSEK MARTIN TROPSCH

Agent(s): BORDEN LADNER GERVAIS LLP; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: WATER-SOLUBLE COPOLYMERS CONTAINING SULFO GROUPS, METHOD FOR THE PRODUCTION AND USE THEREOF

Abstract: Source: US2008200590A [EN] The invention relates to water-soluble copolymers used as water retention agents, stabilizers and rheology modifiers in aqueous building material systems based on hydraulic binders such as cement, lime, plaster, anhydrite etc. and in water-based paint and coating systems. The inventive copolymers are highly effective water retention agents even when used in relatively small amounts. They also exhibit excellent air pore stability and adhesiveness. They can also be used as stabilizers in building material and paint systems.

Classifications:

International (IPC 8-9): C04B24/16 C04B24/26 C04B26/04 C08F12/08 C08F12/30 C08F220/56 C08F220/58 C08F226/06 C08F228/02 C08L39/00 C08L41/00 C09D133/14 C09D133/24 C09D7/12 (Advanced/Invention); C04B24/00 C04B26/00 C08F220/00 C08F226/00 C08F228/00 C08L39/00 C08L41/00 C09D133/14 C09D133/24 C09D7/12 (Core/Invention)
International (IPC 1-7): C08F220/58
CPC: C04B24/163 C04B24/2688 C04B2103/0079 C04B2103/46 C08F216/1416 C08F220/58 C08F220/285
European: C04B24/16P2 C04B24/26V C08F220/58 M04B103/00W19 M04B103/46 M08F216/14D M08F220/28H
US: 524/5 524/5P 525/292 525/292S 526/258 526/258S 526/264 526/287 526/287S

Family:

Publication number	Publication date	Application number	Application date
AT462738 E	20100415	AT20050755313T	20050630
DE102004032304 A1	20060216	DE200410032304	20040703
DE502005009322 D1	20100512	DE200550009322T	20050630
DK1763546 T3	20100719	DK20050755313T	20050630
EP1763546 A1	20070321	EP20050755313	20050630
EP1763546 B1	20100331	EP20050755313	20050630
ES2343845 T3	20100811	ES20050755313T	20050630
JP2008505234 T2	20080221	JP20070519683T	20050630
JP5165371 B2	20130321	JP20070519683T	20050630
PT1763546 T	20100415	PT20050755313T	20050630
SI1763546 T1	20100630	SI20050031008T	20050630
US2008200590 AA	20080821	US20050631454	20050630
US7605196 BB	20091020	US20050631454	20050630
WO06002936 A1	20060112	WO2005EP07089	20050630

Priority:

DE200410032304 20040703 EP20050755313 20050630 WO2005EP07089 20050630

Probable Assignee: CONSTRUCTION RESEARCH AND TECHNOLOGY GMBH

Assignee(s): (std): CONSTR RES AND TECH GMBH ; DIE CONSTRUCTION RES AND TECHNOL ; EBERWEIN MICHAEL ; FRIEDRICH STEFAN ; SCHINABECK MICHAEL ; HOLLAND UWE ; PFEUFFER THOMAS ; SCHUHBECK THOMAS

Assignee(s): DIE CONSTRUCTION RESEARCH AND TECHNOLOGY GMBH ; CONSTRUCTION RESEARCH AND TECHNOLOGY GMBH

Inventor(s): (std): EBERWEIN MICHAEL ; FRIEDRICH STEFAN ; HOLLAND UWE ; PFEUFFER THOMAS ; SCHINABECK MICHAEL ; SCHUHBECK THOMAS

Inventor(s): UWE HOLLAND ; THOMAS SCHUHBECK ; THOMAS PFEUFFER ; STEFAN FRIEDRICH ; MICHAEL SCHINABECK ; MICHAEL EBERWEIN

Agent(s): BOEHM BRIGITTE; FULBRIGHT AND JAWORSKI LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: PRODUCTION OF POLYMERS IN A CONICAL REACTOR

Abstract: Source: US2009076231A [EN] The present invention provides a process for the preparation of polymer which comprises the steps of i) feeding an aqueous mixture comprising a monoethylenically unsaturated monomer or a mixture of monoethylenically unsaturated monomers and an initiator into the top of a reactor ii) polymerizing the monoethylenically unsaturated monomer to form a gel-like aqueous mixture comprising the polymer, iii) squeezing the gel-like aqueous mixture comprising the polymer out of the bottom of the reactor using inert gas, wherein the reactor is either a vertical fully conical reactor having an angle (alpha) between top diameter (d1) of the reactor and inner wall of the reactor of smaller than 90 degrees but larger than 45 degrees or is made up of 2 to 5 connected vertical fully conical parts, which are on top of one another, each having an angle between top diameter of the part and inner wall of the part of smaller than 90 degrees but larger than 45 degrees.

Classifications:

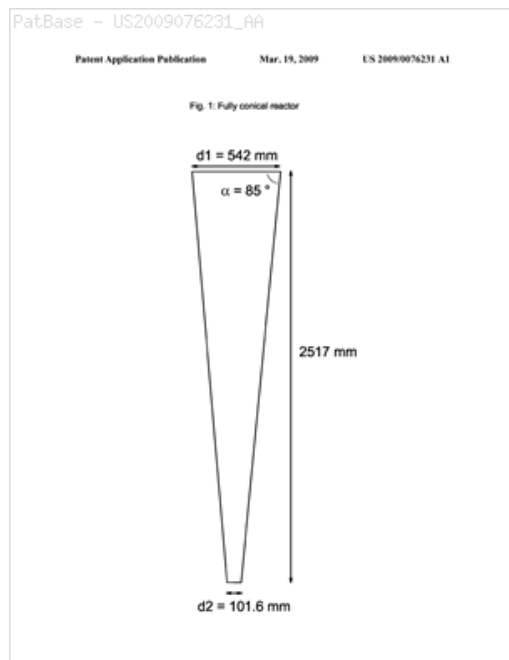
International (IPC 8-9): B01J19/24 C08F120/56 C08F2/01 C08F2/10 C08F2/16 C08F20/00 C08F20/16 C08F20/56 (Advanced/Invention); C08F120/56 C08F2/01 C08F20/56 (Advanced/Non-invention); B01J19/24 C08F2/01 C08F2/04 C08F2/12 C08F20/00 (Core/Invention); C08F120/00 (Core/Non-invention); C08F (Subclass/Invention)

International (IPC 1-7): C08F2/16

CPC: Y10S526/918 Y10S526/93 C08F2/16 B01J19/24 B01J2219/1946

European: B01J19/24 C08F2/16 L01J219/194B8

US: 422/131 422/134 526/64 526/64P 526/65 526/88 526/918 526/930



Family:

Publication number	Publication date	Application number	Application date
AT420898 E	20090115	AT20060743347T	20060419
AU2006243231 AA	20061109	AU20060243231	20060419
AU2006243231 BB	20110714	AU20060243231	20060419
BRPI0607664 A2	20090922	BR2006PI07664	20060419
BRPI0607664 B1	20161227	BR2006PI07664	20060419
CN100558750 C	20091111	CN200680014546	20060419
CN101166767 A	20080423	CN200680014546	20060419
DE602006004861 D1	20090305	DE200660004861T	20060419
EP1874827 A1	20080109	EP20060743347	20060419
EP1874827 B1	20090114	EP20060743347	20060419
GC1494 A	20110122	GC2006P006126	20060419
IN04848CN2007 A	20080125	IN2007CN04848	20071029
IN262254 B	20140815	IN2007CN04848	20071029
JP2008539291 T2	20081113	JP20080508195T	20060419
JP4995190 B2	20120808	JP20080508195T	20060419
KR101318695 B1	20131016	KR20077024699	20060419
KR20080012276 A	20080211	KR20077024699	20060419
RU2007143882 A	20090610	RU20070143882	20060419
RU2408419 C2	20110110	RU20070143882	20060419
US2009076231 AA	20090319	US20060918693	20060419
US7619046 BB	20091117	US20060918693	20060419
WO06117292 A1	20061109	WO2006EP61675	20060419
ZA200708411 A	20091028	ZA20070008411	20071002

Priority:

EP20050103559 20050429

EP20060743347 20060419

WO2006EP61675 20060419

Probable Assignee: CIBA SPECIALTY CHEMICALS CORP

Assignee(s): (std): BASF SE ; BROUGHTON SIMON ; CIBA HOLDING INC ; CIBA SC HOLDING AG ; MORAN ANTHONY ; NAYLOR GARETH IAN ; TSIBA SPESHIALTI KEMIKEHLZ KHOLDING INK ; CIBALTD

Assignee(s): CIBA SPECIALTY CHEMICALS CORP ; CIBA SPECIALTY CHEMICALS HOLDING INC

Inventor(s): (std): ANTHONY MORAN ; BROTON SAJMON ; BROUGHTON SIMON ; IAN NAYLOR GARETH ; MORAN ANTHONY ; MORAN ANTONHY ; MORAN ANTONI ; NAYLOR GARETH IAN ; NEJLOR GARET AJAN ; SIMON BROUGHTON

Inventor(s): GARETH IAN NAYLOR ; ANTONHY MORAN

Agent(s): DAVIES COLLISON CAVE PTY LTD; DAVIES COLLISON CAVE; PEATFIELD JEREMY WILLIAM; SULEIMAN I AL
AMMAR LAW OFFICE; JOANN VILLAMIZAR CIBA PATENT DEPARTMENT CORP; SHIELA A

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK
DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP
KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH
PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM
ZW

Title: INSTALLATION FOR ENHANCED OIL RECOVERY USING WATER SOLUBLE POLYMERS, METHOD FOR IMPLEMENTING SAME

Abstract: Source: US2009095481A [EN] Installation for enhanced oil recovery comprising in succession: a polymer storage hopper, a grinding device, a dissolution/maturation tank for the dispersed polymer, and a pump for transferring pressurized polymer solution in the pipeline conveying the injection water for introducing the mixture of polymer and injection water into a well. The grinding device has a chamber for grinding and draining the dispersed polymer comprising a rotor and a stator, and on all or part of the periphery of the chamber, a ring fed by a secondary water circuit. The ring communicates with the chamber for spraying of pressurised water on the blades of the stator. A method implementing the installation is also provided.

Classifications:

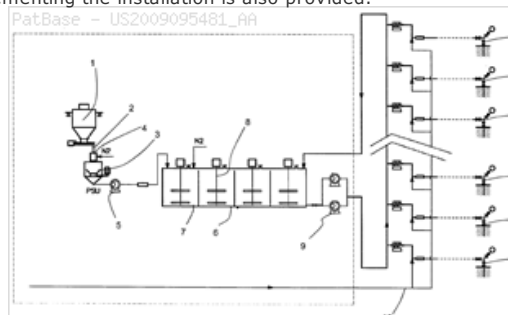
International (IPC 8-9): B02C18/06 B29B13/10 C09K8/588 E21B43/16 E21B43/20 E21B43/22 E21B43/25 E21B43/28 (Advanced/Invention); B02C18/06 B29B13/10 C09K8/58 E21B43/00 E21B43/16 E21B43/25 (Core/Invention)

International (IPC 1-7): B02C18/06 B29B13/10 E21B43/16

CPC: B02C18/08 B02C23/18 C09K8/588 E21B21/062 E21B43/16

European: B02C18/08 B02C23/18 C09K8/588 E21B21/06M E21B43/16

US: 166/304 166/369 166/68.5 166/75.12 166/75.15 166/90.1 166/90.100S 175/209 175/217 241/15 241/15S 241/38 241/38S



Family:

Publication number	Publication date	Application number	Application date
AT500306 E	20110315	AT20080718183T	20080325
BRPI0816820 A2	20150310	BR2008PI16820	20080325
BRPI0816820 B1	20180102	BR2008PI16820	20080325
CA2700239 AA	20100319	CA20082700239	20080325
CA2700239 C	20150609	CA20082700239	20080325
CN101835871 A	20100915	CN200880110892	20080325
CN101835871 B	20130612	CN200880110892	20080325
DE602008005338 D1	20110414	DE200860005338T	20080325
EP2197974 A1	20100623	EP20080718183	20080325
EP2197974 B1	20110302	EP20080718183	20080325
FR2922255 A1	20090417	FR20070058248	20071012
FR2922255 B1	20100312	FR20070058248	20071012
GC3884 A	20151004	GC2008P011908	20081012
MX2010003133 A1	20100702	MX20100003133	20080325
US2009095481 AA	20090416	US20080249364	20081010
US7762340 BB	20100727	US20080249364	20081010
WO08071808 A1	20080619	WO2008EP53496	20080325

Priority:

FR20070058248 20071012 US20070982246P 20071024 US20080249364 20081010
WO2008EP53496 20080325

Probable Assignee: SPCM SA

Assignee(s): (std) JERONIMO PHILIPPE ; PICH RENE ; S P C M S A ; S P C M S A ; S P C M S A S A ; SPCM SA

Assignee(s): S P C M S A SOCIETE ANONYME

Inventor(s): (std) JERONIMO PHILIPPE ; PHILIPPE JERONIMO ; PICH RENE ; RENE PICH

Agent(s): DIMOCK STRATTON LLP; DLA PIPER CANADA LLP; DENJEAN ERIC; CABINET LAURENT ET CHARRAS; KADASA LAW FIRM; HESLIN ROTHENBERG FARLEY AND MESITI PC; VUILLERMOZ BRUNO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: INSTALLATION FOR ENHANCED OIL RECOVERY USING WATER-SOLUBLE POLYMERS, METHOD IMPLEMENTING SAME

Abstract: Source: US2009095483A [EN] Installation for enhanced oil recovery comprising in succession: a polymer storage hopper, a grinding device and a pressurized injection pump. The grinding device has a chamber for grinding and draining the dispersed polymer comprising a rotor and a stator, and on all or part of the periphery of the chamber, a ring fed by a secondary water circuit. The ring communicates with the chamber for spraying of pressurised water on the blades of the stator. A method implementing the installation is also provided.

Classifications:

International (IPC 8-9): B02C18/06 B29B13/10 C09K8/588 E21B43/16 E21B43/20 E21B43/22 E21B43/40 (Advanced/Invention);

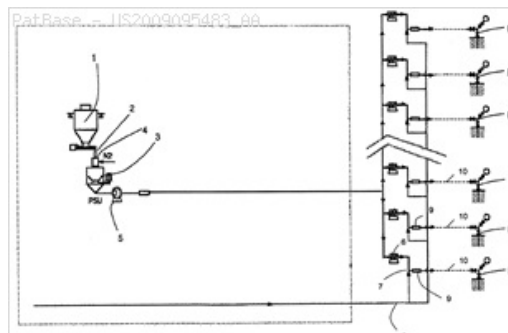
B02C18/06 B29B13/10 C09K8/58 E21B43/16 (Core/Invention)

International (IPC 1-7): B02C18/06 B29B13/10 E21B43/16

CPC: Y10S507/904 C09K8/588 E21B21/062 E21B43/16

European: C09K8/588 E21B21/06M E21B43/16

US: 166/266 166/275 166/305.1 166/305.100P 166/75.11 166/75.110S 166/90.1 241/16 241/21 241/38 241/41 507/904



Family:

Publication number	Publication date	Application number	Application date
AU2008203687 AA	20080710	AU20080203687	20080325
AU2008203687 BB	20110127	AU20080203687	20080325
BRPI0816824 A2	20150310	BR2008PI16824	20080325
BRPI0816824 B1	20171107	BR2008PI16824	20080325
CA2700244 AA	20100319	CA20082700244	20080325
CA2700244 C	20160510	CA20082700244	20080325
CN101821355 A	20100901	CN200880110883	20080325
CN101821355 B	20130313	CN200880110883	20080325
DE602008015649 D1	20120726	DE200860015649T	20080325
EP2197975 A2	20100623	EP20080735469	20080325
EP2197975 B1	20120516	EP20080735469	20080325
FR2922256 A1	20090417	FR20070058251	20071012
FR2922256 B1	20100312	FR20070058251	20071012
US2009095483 AA	20090416	US20080249390	20081010
US7814977 BB	20101019	US20080249390	20081010
WO08081048 A2	20080710	WO2008EP53497	20080325
WO08081048 A3	20081009	WO2008EP53497	20080325

Priority:

EP20080735469 20080325 FR20070058251 20071012 US20080249390 20081010
US20070982244P 20071024 WO2008EP53497 20080325

Probable Assignee: SPCM SA

Assignee(s): (std): JERONIMO PHILIPPE ; PICH RENE ; S P C M SA ; S P C M SA SA ; SPCM SA

Assignee(s): SPCM SOC ANONYME SA ; S P C M SA SOCIETE ANONYME

Inventor(s): (std): JERONIMO PHILIPPE ; PHILIPPE JERONIMO ; PICH RENE ; RENE PICH

Agent(s): GRIFFITH HACK; DIMOCK STRATTON LLP; DLA PIPER CANADA LLP; DENJEAN ERIC; CABINET LAURENT ET CHARRAS; HESLIN ROTHENBERG FARLEY AND MESITI PC; VUILLERMOZ BRUNO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HYDROPHOBICALLY ASSOCIATING COPOLYMERS

Abstract: Source: ZA201109260A [EN] The invention relates to water-soluble, hydrophobically associating copolymers containing novel hydrophobically associating monomers. The monomers comprise an ethylenically unsaturated group and a polyether group with a block structure consisting of a hydrophilic polyalkylene oxide block, which essentially consists of ethylene oxide groups, and of a terminal, hydrophobic polyalkylene oxide block, which consists of alkylene oxides with at least 4 and preferably at least 5 carbon atoms.

Classifications:

International (IPC 8-9): C04B24/26 C08F C08F16/18 C08F216/14 C08F220/34 C08F220/56 C08F220/58 C08F220/60 C08F290/06 C09K8/24 C09K8/58 C09K8/588 C11D1/12 (Advanced/Invention);
C08F (Subclass/Invention)

International (IPC 1-7): C08F216/12 C08F220/26 C08F220/34 C08F220/56 C08F228/02 C08F230/02

CPC: C08G65/2609 C08F220/56 C08F216/1416 C08F220/06 C08F220/34 C08F220/58 C08F226/10 C09K8/588

European: C08F220/34 C08F220/56 C08F220/58 C09K8/588 M08F216/14D M08F220/06 M08F220/58 M08F226/10

Family:

Publication number	Publication date	Application number	Application date
AR076912 AA	20110720	AR2010P101741	20100519
AU2010251271 AA	20101125	AU20100251271	20100517
AU2010251271 BB	20150122	AU20100251271	20100517
BRPI1012844 A2	20180306	BR2010PI12844	20100517
CA2760734 AA	20101125	CA20102760734	20100517
CA2760734 C	20170516	CA20102760734	20100517
CN102439054 A	20120502	CN201080022044	20100517
CN102439054 B	20140521	CN201080022044	20100517
DE502010005834 D1	20140220	DE201050005834T	20100517
DE502010012029 D1	20160825	DE201050012029T	20100517
DK2432807 T3	20140407	DK20100719349T	20100517
EA024043 B1	20160831	EA20110071416	20100517
EA201171416 A1	20120629	EA20110071416	20100517
ECSPI1011488 A	20111230	EC2011SP11488	20111129
EG26625 A	20140409	EG20110111936	20111116
EP2432807 A2	20120328	EP20100719349	20100517
EP2432807 B1	20140101	EP20100719349	20100517
EP2567989 A1	20130313	EP20120188875	20100517
EP2567989 B1	20160713	EP20120188875	20100517
ES2448967 T3	20140317	ES20100719349T	20100517
GC4710 A	20170118	GC2010P015902	20100519
IN09440CN2011 A	20130329	IN2011CN09440	20111216
JP2012527505 T2	20121108	JP20120511242T	20100517
JP5705834 B2	20150422	JP20120511242T	20100517
KR101729797 B1	20170424	KR20117030352	20100517
KR20120029434 A	20120326	KR20117030352	20100517
MX2011011449 A1	20111118	MX20110011449	20100517
MY152754 A	20141128	MY20110005377	20100517
TH121205 A	20130215	TH20111003194	20100517
UA104316 C2	20140127	UA20110105091	20100517
WO10133527 A2	20101125	WO2010EP56685	20100517
WO10133527 A3	20110526	WO2010EP56685	20100517
ZA201109260 A	20130227	ZA20110009260	20111215

Priority:

EP20090160799 20090520 EP20100162690 20100512 EP20100719349 20100517
WO2010EP56685 20100517 EP20120188875 20100517

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE ; FOGEL YULIA ; FRIEDRICH STEFAN ; REICHENBACH KLINKE ROLAND ; OSTROWSKI THOMAS ; GAEBERLEIN PETER ; LANGLOTZ BJOERN ; GUZMANN MARCUS ; ORLEANS ANDREA ; PFEUFFER THOMAS ; LEYRER REINHOLD J ; ROESCH MARKUS ; SCHMIDT KATI ; SCHUHBECK MANFRED

Inventor(s): (std): BJOERN LANGLOTZ ; BJOERN LANGLOTZ DR ; BJORN LANGLOTZ ; ANDREA ORLEANS ; FOGEL YULIA ; FRIEDRICH STEFAN ; GAEBERLEIN PETER ; GUZMANN MARCUS ; KATI SCHMIDT ; KATI SCHMIDT DR ; GUZMANN MARCUS ; LANGLOTZ BJOERN ; LANGLOTZ BJORN ; LEYRER REINHOLD ; LEYRER REINHOLD J ; LEYRER REINHOLD J DR ; MANFRED SCHUHBECK ; MARCUS GUZMANN ; MARCUS GUZMANN DR ; MARKUS ROESCH ; MARKUS ROESCH DR ; MARKUS ROSCH ; ORLEANS ANDREA ; OSTROWSKI THOMAS ; PFEUFFER THOMAS ; REICHENBACH KLINKE ROLAND ; REICHENBACH KLINKE RONALD ; ROESCH MARKUS ; ROLAND REICHENBACH KLINKE ; ROLAND REICHENBACH KLINKE DR ; ROSCH MARKUS ; PETER GAEBERLEIN ; PETER GAEBERLEIN DR ; SCHMIDT KATI ; SCHUHBECK MANFRED ; STEFAN FRIEDRICH ; STEFAN FRIEDRICH DR ; THOMAS OSTROWSKI ; THOMAS OSTROWSKI DR ; THOMAS PFEUFFER ; THOMAS PFEUFFER DR ; YULIA FOGEL ; YULIA FOGEL DR

Inventor(s): YULIA ; THOMAS ; STEFAN ; SCHMIDT KATI 200120 PUDONG NEW DISTRICT ; SCHUHBECK ; PFEUFFER ; SCHMIDT ; REINHOLD ; REINHOLD J LEYRER ; ROESCH ; PETER ; OSTROWSKI ; ORLEANS ; MARKUS ; MARCUS ; MANFRED ; LEYRER ; J ; KATI ; KLINKE ROLAND ; LANGLOTZ ; GUZMANN ; GAEBERLEIN ; FRIEDRICH ; BJOERN ; 10 ANDREA ORLEANS ; 11 MANFRED SCHUHBECK ; 12 BJORN LANGLOTZ ; ANDREA ; DR FOGEL YULIA ; DR FRIEDRICH STEFAN ; DR GAEBERLEIN PETER ; DR GUZMANN MARCUS ; DR LANGLOTZ BJOERN ; DR LEYRER REINHOLD J ; DR OSTROWSKI THOMAS ; DR PFEUFFER THOMAS ; DR REICHENBACH KLINKE ROLAND ; DR ROESCH MARKUS ; DR SCHMIDT KATI ; FOGEL

Agent(s): GRIFFITH HACK; ROBIC; BASF IP ASSOCIATION; CARPINTERO MARIO; SABA AND CO TMP; BASF SE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY
CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS
IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY
MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG
TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: WATER-SOLUBLE, HYDROPHOBIC ASSOCIATING COPOLYMERS

Abstract: Source: US2012129739A [EN] Water-soluble, hydrophobically associating copolymer comprising a monoethylenically unsaturated, water-soluble, surface-active monomer (a), and a monoethylenically unsaturated, hydrophilic monomer (b) different from monomer (a). The copolymer is prepared in the presence of a nonpolymerizable surfactant and has marked thickening properties in aqueous systems.

Classifications:

International (IPC 8-9): C08F2/00 C08F2/48 C08F216/14 C08F220/00 C08F220/28 C08F220/34 C08F220/56 C08F220/58 C08F222/00 C08F222/10 C08F228/02 C08F283/06 C08L29/10 C08L41/00 C09K8/24 C09K8/584 C09K8/588 (Advanced/Invention); C08F220/34 C08F222/10 (Advanced/Non-invention); C08F220/00 C08F222/00 (Core/Invention); C08F (Subclass/Invention)

International (IPC 1-7): C08F220/00 C08F222/00

CPC: C09K8/584 C08F220/34 C08F220/56 C08F220/58 C08F222/1006 C09K8/588

European: C08F220/56 C08F220/58 C09K8/584 C09K8/588 M08F220/34 M08F222/10B

US: 1/1 507/225 507/225S 507/226 507/226P 522/175 522/175S 524/547 524/547S 524/555 524/555S 526/287 526/287S 526/307.5 526/307.500S

Family:

Publication number	Publication date	Application number	Application date
AR077805 AA	20110921	AR2010P102905	20100806
AU2010280846 AA	20110210	AU20100280846	20100730
AU2010280846 BB	20140529	AU20100280846	20100730
BR112012001710 A2	20160412	BR20121101710	20100730
BR112012001710 A8	20161004	BR20121101710	20100730
CA2765923 AA	20110210	CA20102765923	20100730
CA2765923 C	20140506	CA20102765923	20100730
CN102471415 A	20120523	CN201080032251	20100730
CN106749777 A	20170531	CN201611079079	20100730
DE502010009667 D1	20150723	DE201050009667T	20100730
EA022997 B1	20160429	EA20120000245	20100730
EA201200245 A1	20120830	EA20120000245	20100730
ECSP12011708 A	20121030	EC2012SP11708	20120305
EG26835 A	20141020	EG20120020181	20120201
EP2287216 A1	20110223	EP20090167328	20090806
EP2462173 A1	20120613	EP20100737908	20100730
EP2462173 B1	20150610	EP20100737908	20100730
IN01955CN2012 A	20121102	IN2012CN01955	20120302
JP2013501112 T2	20130110	JP20120523295T	20100730
JP5847080 B2	20160120	JP20120523295T	20100730
KR20120055624 A	20120531	KR20127005999	20100730
MX2012000547 A1	20120430	MX20120000547	20100730
MY160278 A	20170228	MY20120000484	20100730
TH125568 A	20130724	TH20121000427	20100730
UA108079 C2	20150325	UA20120002380	20100730
US2012129739 AA	20120524	US20100378684	20100730
US9315717 BB	20160419	US20100378684	20100730
WO11015520 A1	20110210	WO2010EP61074	20100730
ZA201201587 A	20140528	ZA20120001587	20120302

Priority:

CN201080032251 20100730 EP20090167328 20090806 WO2010EP61074 20100730
EP20100737908 20100730

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE ; FRIEDRICH STEFAN ; GUZMANN MARCUS ; PFEUFFER THOMAS ; REICHENBACH KLINKE ROLAND

Inventor(s): (std): GUZMANN MARCUS ; LANGLOTZ BJORN ; MARCUS GUZMANN ; PFEUFFER THOMAS ; REICHENBACH KLINKE ROLAND ; ROLAND REICHENBACH KLINKE ; STEFAN FRIEDRICH ; THOMAS PFEUFFER ; FRIEDRICH STEFAN

Inventor(s): FRIEDRICH STEFFAN

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; OSLER HOSKIN AND HARCOURT LLP; WALLON ALEXANDER; WITZ MICHAEL; NORTON ROSE FULBRIGHT US LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD OF CONTINUOUS DISSOLUTION OF POLYACRYLAMIDE EMULSIONS FOR ENHANCED OIL RECOVERY (EOR)

Abstract: Source: US2011118153A [EN] Enhanced oil recovery method consisting in continuously dissolving, in the injection water, a stable invert emulsion of acrylamide (co)polymer containing at least one inverting agent, and a water soluble polymer, whereby: in a first step, the emulsion is prediluted in a first static mixer to a (co)polymer concentration of at least 5 g/l, the difference of pressure between the mixer outlet and inlet being at least 2 bar, in a second step, the suspension from the first mixer is diluted in a second static mixer to a concentration corresponding to the injection concentration of the water in the well of between 500 and 3000 ppm, the difference of pressure between the mixer outlet and inlet being at least 1 bar.

Classifications:

International (IPC 8-9): B01F1/00 C08J3/03 C09K8/528 C09K8/58 C09K8/588 E21B19/00 E21B43/00 E21B43/16

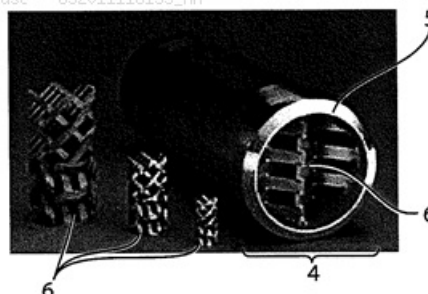
E21B43/22 (Advanced/Invention)

CPC: B01F1/0005 B01F1/0022 C09K8/588 E21B21/062 E21B43/25

European: B01F1/00B B01F1/00F C09K8/588 E21B21/06M E21B43/25

US: 166/90.1 166/90.100S 507/221 507/224 507/225 507/225P

PatBase - US2011118153_HH



Family:

Publication number	Publication date	Application number	Application date
AT516873 E	20110815	AT20100305835T	20100729
CN101994502 A	20110330	CN201010231079	20100720
CN101994502 B	20140416	CN201010231079	20100720
DE602010000118 D1	20110922	DE201060000118T	20100729
EP2283915 A1	20110216	EP20100305835	20100729
EP2283915 B1	20110720	EP20100305835	20100729
ES2365840 T3	20111011	ES20100305835T	20100729
FR2948964 A1	20110211	FR20090055555	20090807
FR2948964 B1	20110930	FR20090055555	20090807
US2011118153 AA	20110519	US20100840249	20100720
US8383560 BB	20130226	US20100840249	20100720

Priority:

EP20100305835 20100729 FR20090055555 20090807 US20090272256P 20090904
US20100840249 20100720

Probable Assignee: SPCM SA

Assignee(s): (std): S P C M SA ; SPCM SA ; JERONIMO PHILIPPE ; PICH RENE

Assignee(s): SPCMSA

Inventor(s): (std): JERONIMO PHILIPPE ; PHILIPPE JERONIMO ; PICH RENE ; RENE PICH

Agent(s): MEISSNER BOLTE AND PARTNER GBR; DENJEAN ERIC; CABINET LAURENT ET CHARRAS; WOLF GREENFIELD AND SACKS PC

Designated states: AL AT BA 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

Title: AQUEOUS FORMULATIONS OF HYDROPHOBICALLY ASSOCIATING COPOLYMERS AND SURFACTANTS AND ALSO THEIR USE FOR PETROLEUM RECOVERY

Abstract: Process for petroleum recovery, in which an aqueous formulation comprising at least one water-soluble, hydrophobically associating copolymer (A) and at least one non-ionic and/or anionic surfactant (B) is injected through at least one injection borehole into a petroleum reservoir and crude oil is taken from the reservoir through at least one production borehole, wherein the water-soluble, hydrophobically associating copolymer comprises at least acrylamide or derivatives thereof, a monomer having anionic groups and also a monomer which can bring about association of the copolymer, and also an aqueous formulation suitable for carrying out the process.

Classifications:

International (IPC 8-9): C08F220/00 C09K8/584 C09K8/588 (Advanced/Invention)

CPC: C08F220/00 C09K8/584 C09K8/588

European: C08F220/00 C09K8/584 C09K8/588

Family:

Publication number	Publication date	Application number	Application date
AU2011333883 AA	20120531	AU20110333883	20111122
BR112013012862 A2	20160823	BR20131112862	20111122
CA2818016 AA	20130515	CA20112818016	20111122
CN103328601 A	20130925	CN201180065757	20111122
EA201390770 A1	20131230	EA20130090770	20111122
EP2643422 A1	20131002	EP20110787850	20111122
IN04217CN2013 A	20140704	IN2013CN04217	20130531
MX2013005695 A1	20130705	MX20130005695	20111122
WO12069438 A1	20120531	WO2011EP70612	20111122

Priority:

EP20100192316 20101124 EP20110787850 20111122 WO2011EP70612 20111122

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE ; LANGLOTZ BJOERN ; REICHENBACH KLINKE ROLAND

Assignee(s): LANGLOTZ BJORN

Inventor(s): (std): LANGLOTZ BJOERN ; LANGLOTZ BJORN ; REICHENBACH KLINKE ROLAND

Inventor(s): ROLAND REICHENBACH KLINKE ; LANGLOTZ BJRN ; BJOERN LANGLOTZ

Agent(s): GRIFFITH HACK; ROBIC; BASF SE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD FOR OIL RECOVERY USING HYDROPHOBICALLY ASSOCIATING POLYMERS

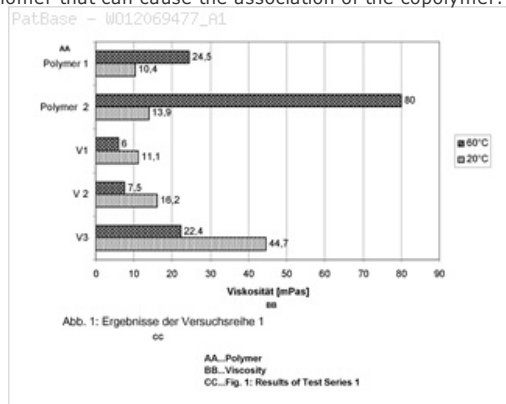
Abstract: The invention relates to a method for oil recovery, according to which an aqueous formulation comprising at least one water-soluble, hydrophobically associating copolymer is forced through at least one injection well in an oil deposit and crude oil is extracted from the oil deposit through at least one production well, said deposit being at a temperature of between 35 degrees centigrade and 120 degrees centigrade, preferably between 40 degrees centigrade and 90 degrees centigrade. The water-soluble, hydrophobically associating copolymer comprises at least acryl amide or derivatives thereof, a monoethylenically unsaturated monomer having anionic groups and a monoethylenically unsaturated monomer that can cause the association of the copolymer.

Classifications:

International (IPC 8-9): C09K8/588 E21B43/22 (Advanced/Invention)

CPC: C08G65/2609 C09K8/588 C08F216/1416 C08F220/54 C08F220/56

European: C09K8/588



Family:

Publication number	Publication date	Application number	Application date
AR083975 AA	20130410	AR2011P104372	20111123
AU2011333834 AA	20120531	AU20110333834	20111122
BR112013012871 A2	20160906	BR20131112871	20111122
CA2817792 AA	20130513	CA20112817792	20111122
CN103339220 A	20131002	CN201180065612	20111122
EA201390769 A1	20131230	EA20130090769	20111122
EP2643423 A1	20131002	EP20110784721	20111122
IN04898CN2013 A	20160610	IN2013CN04898	20130621
MX2013005696 A1	20130705	MX20130005696	20111122
WO12069477 A1	20120531	WO2011EP70688	20111122

Priority:

EP20100192323 20101124 EP20110784721 20111122 WO2011EP70688 20111122

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE ; LANGLOTZ BJOERN ; REICHENBACH KLINKE ROLAND ; WENZKE BENJAMIN ; SPINDLER CHRISTIAN

Assignee(s): LANGLOTZ BJORN

Inventor(s): (std): LANGLOTZ BJOERN ; REICHENBACH KLINKE ROLAND ; SPINDLER CHRISTIAN ; WENZKE BENJAMIN ; LANGLOTZ BJORN

Inventor(s): ROLAND REICHENBACH KLINKE ; CHRISTIAN SPINDLER ; BJOERN LANGLOTZ ; BENJAMIN WENZKE

Agent(s): GRIFFITH HACK; ROBIC; BASF SE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD FOR OIL RECOVERY USING HYDROPHOBICALLY ASSOCIATING POLYMERS

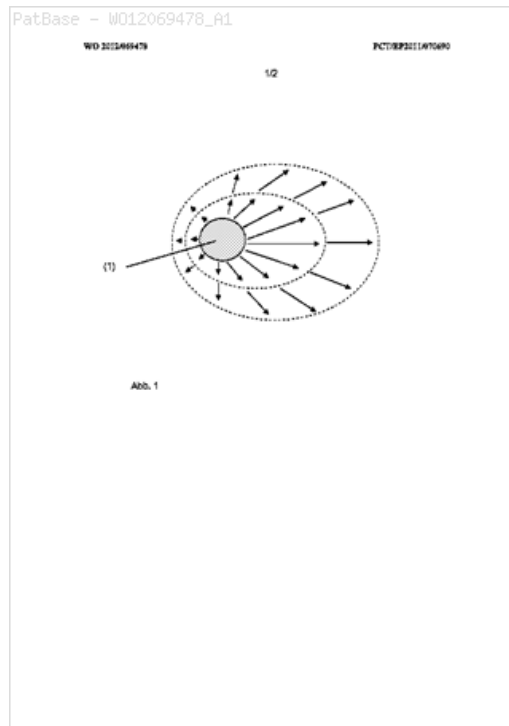
Abstract: The invention relates to a method for oil recovery, according to which an aqueous formulation comprising at least one water-soluble, hydrophobically associating copolymer is forced through at least one injection well into an oil deposit and crude oil is extracted from the oil deposit through at least one production well. The water-soluble, hydrophobically associating copolymer comprises at least acryl amide or derivatives thereof, a monomer having anionic groups and a monomer that can cause the association of the copolymer. The invention also relates to a water-soluble, hydrophobically associating copolymer with low shear degradation that is suitable for carrying out said method.

Classifications:

International (IPC 8-9): C09K8/588 E21B43/22 (Advanced/Invention)

CPC: C09K8/588

European: C09K8/588



Family:

Publication number	Publication date	Application number	Application date
AR083976 AA	20130410	AR2011P104373	20111123
BR112013012869 A2	20160906	BR20131112869	20111122
CA2818847 AA	20130523	CA20112818847	20111122
CN103328602 A	20130925	CN201180065759	20111122
EP2643424 A1	20131002	EP20110793699	20111122
MX2013005518 A1	20130705	MX20130005518	20111122
RU2013128418 A	20141227	RU20130128418	20111122
WO12069478 A1	20120531	WO2011EP70690	20111122

Priority:

EP20100192334 20101124 EP20110793699 20111122 WO2011EP70690 20111122

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE ; LANGLOTZ BJOERN ; REICHENBACH KLINKE ROLAND

Assignee(s): LANGLOTZ BJORN

Inventor(s): (std): LANGLOTZ BJOERN ; LANGLOTZ BJORN ; REICHENBACH KLINKE ROLAND

Inventor(s): ROLAND REICHENBACH KLINKE ; BJOERN LANGLOTZ

Agent(s): ROBIC ; BASF SE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: DEVICE FOR MEASURING AND CONTROLLING ON-LINE VISCOSITY AT HIGH PRESSURE

Abstract: Source: US2014053637A [EN] Device that can be used in an enhanced oil recovery method by injection of a solution of water soluble polymer and brine having a viscosity below 1000 cps that includes a mixer, and preferably a static mixer, capable of homogenizing the solution on-line; a device capable of measuring the viscosity of the homogenized solution, continuously, downstream of the solution injection pump, at a pressure below or equal to 250 bars, and preferably between 50 and 250 bars, and at a temperature below or equal to 120 degrees centigrade, and preferably between 40 and 120 degrees centigrade, by measuring a pressure drop in a calibrated tube, at a constant rate of flow.

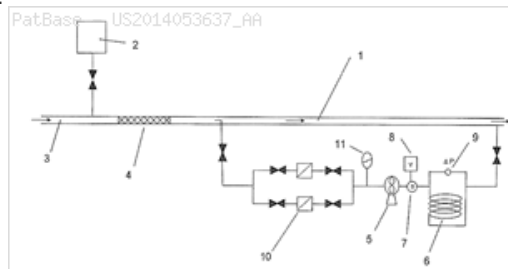
Classifications:

International (IPC 8-9): E21B21/06 E21B43/16 E21B43/20 E21B43/22 E21B47/10 G01N11/00 G01N11/06 G01N11/14 (Advanced/Invention)

CPC: G01N11/08 G01N2001/205 G01N2001/2064 E21B21/062 E21B43/20 E21B47/10 G01N11/00 E21B43/16 G01N1/2035

European: E21B21/06M E21B43/16 E21B43/20 E21B47/10 G01N1/20B S01N1/20B3 S01N1/20B5 S01N11/08

US: 73/54.01



Family:

Publication number	Publication date	Application number	Application date
AU2012241869 AA	20121018	AU20120241869	20120411
AU2012241869 BB	20150409	AU20120241869	20120411
CA2831862 AA	20130930	CA20122831862	20120411
CN103502562 A	20140108	CN201280015747	20120411
EP2697472 A1	20140219	EP20120714310	20120411
EP2697472 B1	20170809	EP20120714310	20120411
FR2973828 A1	20121012	FR20110053117	20110411
FR2973828 B1	20140418	FR20110053117	20110411
HR20171263 T1	20171020	HR20170001263	20170817
IN02843KN2013 A	20140404	IN2013KN02843	20130927
US2014053637 AA	20140227	US20130040281	20130927
WO12140092 A1	20121018	WO2012EP56593	20120411

Priority:

EP20120714310 20120411 FR20110053117 20110411 US20110476635P 20110418
WO2012EP56593 20120411 US20130040281 20130927

Probable Assignee: SPCM SA

Assignee(s): (std): PICH EMMANUEL ; QUILLIEN BERNARD ; SNF SAS ; SPCM SA

Assignee(s): S P C M SA

Inventor(s): (std): PICH EMMANUEL ; QUILLIEN BERNARD

Inventor(s): BERNARD QUILLIEN ; EMMANUEL PICH

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; HEENAN BLAIKIE LLP; DIMOCK STRATTON LLP; DLA PIPER CANADA LLP; CABINET LAURENT AND CHARRAS; CABINET LAURENT ET CHARRAS; DENJEAN ERIC ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR PREPARING A MACROMONOMER

Abstract: Source: US2015329669A [EN] The present invention relates to a process for preparing hydrophobically associating macromonomers M and to the novel macromonomers prepared by means of the process according to the invention. The macromonomers M comprise a copolymerizable, ethylenically unsaturated group and a polyether structure in block form, the latter consisting of a polyethyleneoxy block and a hydrophobic polyalkyleneoxy block consisting of alkyleneoxy units having at least 4 carbon atoms. Optionally, the macromonomers M may have a terminal polyethyleneoxy block. The macromonomers prepared by the process according to the invention are suitable for reaction with further monomers, especially with acrylamide, to give a water-soluble, hydrophobically associating copolymer.

Classifications:

International (IPC 8-9): C08F C08F216/00 C08F216/14 C08F290/06 C08G C08G65/00 C08G65/10 C08G65/26 C08G65/28 C08G65/331 (Advanced/Invention)

CPC: C08G2650/36 C08G65/2696 C08F216/1416 C08F290/062 C08F2216/1425 C08G65/2609 C08G65/2648 C08F220/58 C08F2220/585 C08F220/56

US: 568/613 568/618

Family:

Publication number	Publication date	Application number	Application date
AR094023 AA	20150701	AR2013P104752	20131216
AU2013363874 AA	20140626	AU20130363874	20131213
AU2013363874 BB	20161208	AU20130363874	20131213
BR112015014072 A2	20170711	BR20151114072	20131213
CA2892689 AA	20150526	CA20132892689	20131213
CN104870518 A	20150826	CN201380065496	20131213
CN104870518 B	20180102	CN201380065496	20131213
EP2931786 A2	20151021	EP20130803050	20131213
ID201703229 A	20170331	ID2015P0003615	20131213
IN03405CN2015 A	20160701	IN2015CN03405	20150611
JP2016510347 T2	20160407	JP20150547042T	20131213
KR20150097654 A	20150826	KR20157019029	20131213
MX2015007837 A1	20150910	MX20150007837	20131213
RU2015128887 A	20170125	RU20150128887	20131213
US2015329669 AA	20151119	US20130652244	20131213
US9657137 BB	20170523	US20130652244	20131213
WO14095608 A2	20140626	WO2013EP76499	20131213
WO14095608 A3	20141224	WO2013EP76499	20131213
ZA201505103 A	20171025	ZA20150005103	20150716

Priority:

EP20120197538 20121217 EP20130803050 20131213 WO2013EP76499 20131213

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE

Assignee(s): BITTNER CHRISTIAN ; OSTROWSKI THOMAS ; KLUMPE MARKUS ; MEIER NICOLE ; LANGLOTZ BJORN ; SPINDLER CHRISTIAN ; WENZKE BENJAMIN ; REICHENBACH KLINKE ROLAND ; ANNEN ULRICH ; BASF CONSTRUCTION CHEMICALS GMBH

Inventor(s): (std): LANGLOTZ BJOERN ; LANGLOTZ BJORN ; MARKUS KLUMPE ; MEIER NICOLE ; NICOLE MEIER ; OSTROWSKI THOMAS ; REICHENBACH KLINKE ROLAND ; ROLAND REICHENBACH KLINKE ; SPINDLER CHRISTIAN ; THOMAS OSTROWSKI ; ULRICH ANNEN ; WENZKE BENJAMIN ; ANNEN ULRICH ; BENJAMIN WENZKE ; BITTNER CHRISTIAN ; BJOERN LANGLOTZ ; CHRISTIAN BITTNER ; CHRISTIAN SPINDLER ; KLUMPE MARKUS ; LANGLOTZ BJ RN

Inventor(s): LANGLOTZ BJARN ; KLINKE ROLAND

Agent(s): GRIFFITH HACK; ROBIC; BUECHEL EDWIN; SETIAWAN ADI SH; DRINKER BIDDLE AND REATH LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: WATER-SOLUBLE, HYDROPHOBICALLY ASSOCIATING COPOLYMERS HAVING NOVEL HYDROPHOBICALLY ASSOCIATING MONOMERS

Abstract: Source: US2015329660A [EN] The present invention relates to water-soluble hydrophobically associating copolymers which are obtained in the presence of a nonpolymerizable surface-active compound and which comprise novel hydrophobically associating monomers. The monomers comprise an ethylenically unsaturated group and a polyether block, the polyether block comprising a hydrophilic polyethyleneoxy block and a hydrophobic polyalkyleneoxy block consisting of alkyleneoxy units having at least 4 carbon atoms. The monomers may optionally have a terminal polyethyleneoxy block. The invention further relates to processes for preparing the copolymers and to the use thereof.

Classifications:

International (IPC 8-9): C08F C08F216/14 C08F220/56 C08F290/06 C09K8/588 E21B43/20 (Advanced/Invention)

CPC: C08F220/56 E21B43/20 C08F216/1416 C08F2216/1433 C09K8/588

US: 166/270.1 507/226 526/287

Family:

Publication number	Publication date	Application number	Application date
AR094021 AA	20150701	AR2013P104750	20131216
AU2013363888 AA	20140626	AU20130363888	20131213
AU2013363888 BB	20170202	AU20130363888	20131213
BR112015014069 A2	20170711	BR20151114069	20131213
CA2893025 AA	20150527	CA20132893025	20131213
CN104995222 A	20151021	CN201380072936	20131213
EP2931766 A1	20151021	EP20130805363	20131213
ID201702620 A	20170317	ID2015P0003617	20131213
IN03467CN2015 A	20160701	IN2015CN03467	20150615
JP2016500384 T2	20160112	JP20150547045T	20131213
KR20150095906 A	20150821	KR20157019210	20131213
MX2015007838 A1	20150904	MX20150007838	20131213
RU2015128885 A	20170125	RU20150128885	20131213
US2015329660 AA	20151119	US20130652648	20131213
US9777094 BB	20171003	US20130652648	20131213
WO14095621 A1	20140626	WO2013EP76523	20131213
ZA201505109 A	20171129	ZA20150005109	20150716

Priority:

EP20120197504 20121217

EP20130805363 20131213

WO2013EP76523 20131213

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE

Assignee(s): BITTNER CHRISTIAN ; LANGLOTZ BJORN ; REICHENBACH KLINKE ROLAND ; SPINDLER CHRISTIAN ; WENZKE BENJAMIN

Inventor(s): (std): BENJAMIN WENZKE ; BITTNER CHRISTIAN ; BJOERN LANGLOTZ ; CHRISTIAN BITTNER ; CHRISTIAN SPINDLER ; LANGLOTZ BJOERN ; LANGLOTZ BJORN ; REICHENBACH KLINKE ROLAND ; ROLAND REICHENBACH KLINKE ; SPINDLER CHRISTIAN ; WENZKE BENJAMIN

Inventor(s): KLINKE ROLAND

Agent(s): GRIFFITH HACK; ROBIC; BUECHEL EDWIN; SETIAWAN ADI SH; DRINKER BIDDLE AND REATH LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: STABILISED COMPOSITIONS CONTAINING ACRYLAMIDE POLYMERS, AND METHOD FOR THE TERTIARY PRODUCTION OF CRUDE OIL USING SAID COMPOSITIONS

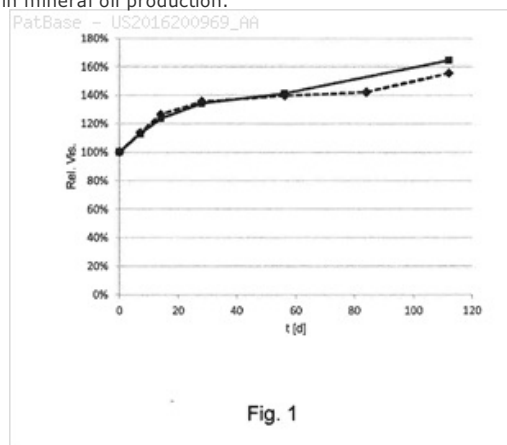
Abstract: Source: US2016200969A [EN] The present application relates to compositions comprising at least one acrylamide polymer P and at least one stabilizer S selected from sterically hindered amines; more particularly, the composition may be an aqueous solution comprising at least one acrylamide polymer P and at least one stabilizer S. In addition, the present invention relates to a process for producing the composition and to the use thereof in mineral oil production.

Classifications:

International (IPC 8-9): C08K5/3435 C08L33/26 C09K8/88 E21B43/16 (Advanced/Invention)

CPC: C08K5/3435 C08F220/54 C08F230/02 C08F2216/1425 C08F2220/382 C09K8/882 E21B43/16 C08L33/26

US: 166/275 524/718



Family:

Publication number	Publication date	Application number	Application date
BR112016003458 A2	20170801	BR20161103458	20140814
CA2920987 AA	20160210	CA20142920987	20140814
CN105722907 A	20160629	CN201480057654	20140814
EP3036282 A1	20160629	EP20140752319	20140814
ID201708259 A	20170804	ID2016P0001047	20140814
IN201647005081 A	20160826	IN201647005081	20160212
MX2016002325 A1	20161130	MX20160002325	20140814
RU2016110134 A	20170927	RU20160110134	20140814
US2016200969 AA	20160714	US20140912991	20140814
WO15024865 A1	20150226	WO2014EP67444	20140814

Priority:

EP20130181338 20130822 EP20140164734 20140415 WO2014EP67444 20140814
EP20140752319 20140814

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE

Assignee(s): LANGLOTZ BJORN ; REICHENBACH KLINKE ROLAND ; ROTZINGER BRUNO ; SCHONING KAI UWE

Inventor(s): (std): BJOERN LANGLOTZ ; BRUNO ROTZINGER ; KAI UWE SCHOENING ; LANGLOTZ BJORN ; ROLAND REICHENBACH KLINKE ; SCHONING KAI UWE ; SCHOENING KAI UWE ; ROTZINGER BRUNO ; REICHENBACH KLINKE ROLAND ; LANGLOTZ BJOERN

Agent(s): ROBIC; BUECHEL EDWIN; SETIAWAN ADI SH

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD FOR RECOVERING PETROLEUM

Abstract: Source: US2017101576A [EN] A process for producing mineral oil from underground mineral oil deposits, in which an aqueous formulation comprising at least one water-soluble, hydrophobically associating copolymer is injected through at least one injection well into a mineral oil deposit having a deposit temperature of 20 degrees centigrade to 120 degrees centigrade and crude oil is withdrawn from the deposit through at least one production well, wherein the water-soluble copolymer comprises at least acrylamide or derivatives thereof and a mixture comprising at least two amphiphilic macromonomers.

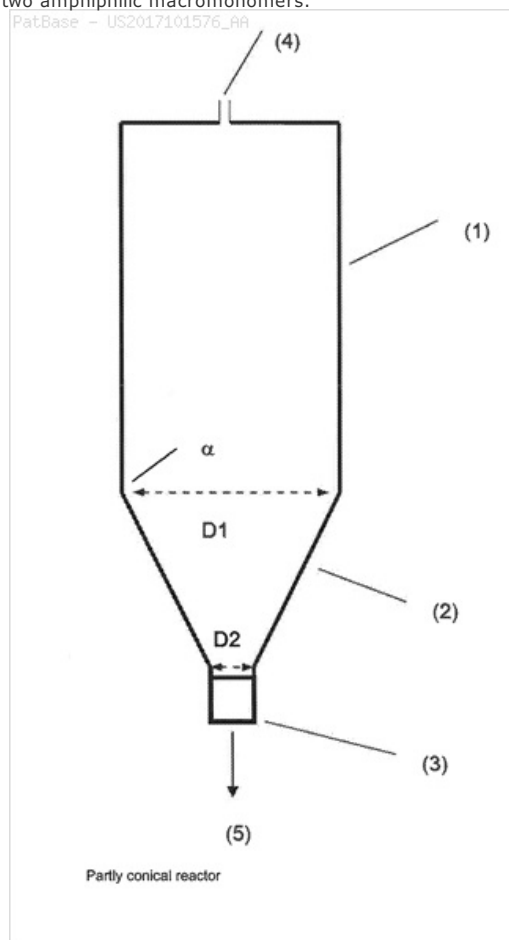
Classifications:

International (IPC 8-9): C08F C08F2/10 C08F220/56 C08L33/26 C09K C09K8/584 C09K8/588 E21B43/00 E21B43/16

E21B43/22 (Advanced/Invention)

CPC: E21B43/16 C08F2800/20 C09K8/588 C08F220/56 C08L33/26

US: 166/270.1



Family:

Publication number	Publication date	Application number	Application date
AR100384 AA	20161005	AR2014P104655	20141212
AU2014363793 AA	20150618	AU20140363793	20141205
AU2014363793 BB	20180222	AU20140363793	20141205
BR112016013465 A2	20170808	BR20161113465	20141205
CA2933114 AA	20160608	CA20142933114	20141205
CN105874032 A	20160817	CN201480072192	20141205
CO20160006164 A2	20170410	CO20160006164	20170718
EA201691230 A1	20161130	EA20160091230	20141205
EP3080227 A1	20161019	EP20140809822	20141205
EP3080227 B1	20171227	EP20140809822	20141205
ES2662194 T3	20180405	ES20140809822T	20141205
ID201710973 A	20171006	ID2016P0004438	20141205
IN201647020207 A	20160831	IN201647020207	20160613
JP2017509812 T2	20170406	JP20160539103T	20141205
KR20160096710 A	20160816	KR20167018772	20141205
MX2016007730 A1	20160909	MX20160007730	20141205
US2017101576 AA	20170413	US20140103356	20141205
US9783730 BB	20171010	US20140103356	20141205
WO15086468 A1	20150618	WO2014EP76772	20141205
ZA201604584 A	20171129	ZA20160004584	20160706

Priority:

EP20130197065 20131213 EP20140809822 20141205 WO2014EP76772 20141205

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE

Assignee(s): BITTNER CHRISTIAN ; LANGLOTZ BJORN ; REICHENBACH KLINKE ROLAND ; ZIMMERMANN TOBIAS

Inventor(s): (std): BITTNER CHRISTIAN ; BJOERN LANGLOTZ ; CHRISTIAN BITTNER ; LANGLOTZ BJOERN ; LANGLOTZ BJORN ; REICHENBACH KLINKE ROLAND ; ROLAND REICHENBACH KLINKE ; TOBIAS ZIMMERMANN ; ZIMMERMANN TOBIAS

Inventor(s): KLINKE ROLAND

Agent(s): GRIFFITH HACK; ROBIC; JOSE ANDRES RINCON USCATEGUI; BASF IP ASSOCIATION; CARPINTERO MARIO; SETIAWAN ADI SH; DRINKER BIDDLE AND REATH LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: AGROFORMULATION COMPRISING COPOLYMERS CONTAINING HYDROXYBUTYL VINYL ETHER AS ASSOCIATIVE THICKENER

Abstract: The present invention relates to an agrochemical composition comprising a pesticide and at least one water-soluble copolymer (P) comprising at least one monomer (A) selected from the group of (meth)acrylamide, N-methyl(meth)acrylamide, N,N'-dimethyl(meth)acrylamide and N-methylol(meth)acrylamide; at least one macromonomer (B), at least comprising a macromonomer (B1): $H_2C=C(R_1)-R_2-O-(R_3O)a-(R_4O)b-[(R_4O)c(R_5O)d]-H$; and at least one anionic monoethylenically unsaturated monomer (C) comprising at least one acidic group selected from $-COOH$, $-SO_3H$, PO_3H_2 and salts thereof. The invention further provides for the production of a spray liquor, comprising the contacting of a pesticide, the water-soluble copolymer (P), and water; and a method of controlling phytopathogenic fungi and/or unwanted plant growth and/or unwanted insect or mildew infestation and/or for regulation of plant growth, wherein the agrochemical composition is allowed to act on the pest, on its environment, on the useful plant to be protected from the pest, on the soil and/or on the unwanted plant and/or useful plant and/or its environment.

Classifications:

International (IPC 8-9): A01N25/10 A01N25/24 A01N37/40 A01N43/10 A01N43/653 A01N57/20 C08F220/56 C08F283/06 (Advanced/Invention)

CPC: A01N25/10 A01N25/24 C08F220/56 C08F283/06

Family:

Publication number	Publication date	Application number	Application date
AU2016294729 AA	20170126	AU20160294729	20160713
CA2990904 AA	20171227	CA20162990904	20160713
CN107846875 A	20180327	CN201680042535	20160713
WO17012930 A1	20170126	WO2016EP66589	20160713

Priority:

EP20150177851 20150722 WO2016EP66589 20160713

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE

Assignee(s): BITTNER CHRISTIAN ; EISSMANN DIANA ; GUBBELS ERIK ; RANFT MEIK ; MORAN PUENTE DIANA WESTFALIA ; ZIMMERMANN TOBIAS

Inventor(s): (std): BITTNER CHRISTIAN ; EISSMANN DIANA ; GUBBELS ERIK ; MORAN PUENTE DIANA WESTFALIA ; RANFT MEIK ; ZIMMERMANN TOBIAS

Agent(s): WATERMARK INTELLECTUAL PROPERTY PTY LTD; ROBIC; BASF IP ASSOCIATION

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

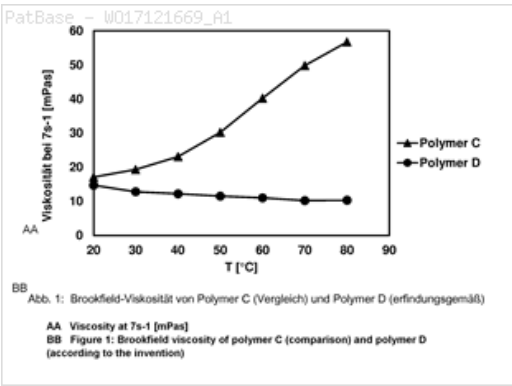
Title: METHOD FOR TERTIARY PETROLEUM RECOVERY BY MEANS OF A HYDROPHOBICALLY ASSOCIATING POLYMER

Abstract: The invention relates to a method for the tertiary recovery of petroleum from underground deposits having a deposit temperature of less than or equal to 70 degrees centigrade, wherein a copolymer comprising (meth)acrylamide or derivatives thereof, monoethylenically unsaturated carboxylic acids, in particular acrylic acid, and an associative monomer is used, wherein the amount of the associative monomer is 0.1 to 0.9 wt percent. A water-soluble copolymer comprising (meth)acrylamide or derivatives thereof, monoethylenically unsaturated carboxylic acids, in particular acrylic acid, and 0.1 to 0.9 wt percent of an associative monomer.

Classifications:

International (IPC 8-9): C09K8/035 (Advanced/Invention)

CPC: C09K8/588 C09K8/035 C08F283/065



Family:

Publication number	Publication date	Application number	Application date
WO17121669 A1	20170720	WO2017EP50135	20170104

Priority:

EP20160151032 20160114

Probable Assignee: BASF SE

Assignee(s): (std): BASF SE

Inventor(s): (std): BITTNER CHRISTIAN ; REICHENBACH KLINKE ROLAND ; STAVLAND ARNE ; ZIMMERMANN TOBIAS

Agent(s): BASF IP ASSOCIATION

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW