

Title (en)
CIS-ALKOXYSPIROCYCLIC BIPHENYL-SUBSTITUTED TETRAMIC ACID DERIVATIVES

Title (de)
CIS-ALKOXYSPIROCYCLISCHE BIPHENYLSUBSTITUIERTE TETRAMSÄURE-DERIVATE

Title (fr)
DÉRIVÉS D'ACIDE TÉTRAMIQUE CIS-ALCOXYSPIROCYCLIQUES SUBSTITUÉS PAR LE BIPHÉNYLE

Publication
EP 2114880 A1 20091111 (DE)

Application
EP 07856208 A 20071122

Priority
• EP 2007010102 W 20071122
• DE 102006057037 A 20061204

Abstract (en)

[origin: DE102006057037A1] Cis-alkoxy Spirocyclic biphenyl-substituted acid derivatives (I), are new. Cis-alkoxy Spirocyclic biphenyl-substituted acid derivatives of formula (I), are new. X : halo, (halo)alkyl or (halo)alkoxy; Z : optionally substituted fluorophenyl; W 1>, Y 1> : X or H; A : alkyl; G : H, -CO=R 1>, -C(=L)-M-R 2>, -SO 2-R 3>, -P(=L)(R 4>)(R 5>), E or -C(=L)-N(R 6>)(R 7>); E : a metal ion or an ammonium ion; L, M : O or S; R 1> : optionally halo substituted alkyl, alkenyl, alkoxyalkyl, alkylthioalkyl, polyalkoxyalkyl or optionally halo, alkyl or alkoxy substituted cycloalkyl, which is interrupted by at least a heteroatom, optionally substituted phenyl(alkyl), hetaryl, phenoxyalkyl or hetarylalkoxyalkyl; R 2> : optionally halo substituted alkyl, alkenyl, alkoxyalkyl, polyalkoxyalkyl or optionally substituted cycloalkyl, phenyl or benzyl; R 3>-R 5> : optionally halo substituted alkyl, alkoxy, alkylamino, dialkylamino, alkylthio, alkenylthio, cycloalkylthio or optionally substituted phenyl, benzyl, phenoxy or phenylthio; and either R 6>, R 7> : H, optionally halo substituted alkyl, cycloalkyl, alkenyl, alkoxy, alkoxyalkyl, optionally substituted phenyl or benzyl; or NR 6>R 7> : a ring (optionally interrupted by O or S). Independent claims are included for: (1) the preparation of (I); (2) an agent containing (I) and at least a compound for improving the compatibility of the culture plants, comprising e.g. 4-dichloroacetyl-1-oxa-4-aza-spiro[4.5]-decane, 1-dichloroacetyl-hexahydro-3,3,8a-trimethylpyrrolo[1,2-a]-pyrimidin-6(2H)-one, 4-dichloroacetyl-3,4-dihydro-3-methyl-2H-1,4-benzoxazine, 3-(2-chloro-benzyl)-1-(1-methyl-1-phenyl-ethyl)-urea, ~a-(cyanomethoximino)-phenylacetone nitrile, 2,4-dichloro-phenoxy acetic acid, 4-(2,4-dichloro-phenoxy)-butyric acid, 1-(1-methyl-1-phenyl-ethyl)-3-(4-methyl-phenyl)-urea, 3,6-dichloro-2-methoxy-benzoic acid, 2,2-dichloro-N,N-di-2-propenyl-acetamide, 4,6-dichloro-2-phenyl-pyrimidine, 4-chloro-N-(1,3-dioxolan-2-yl-methoxy)-~a-trifluoro-acetophenoxime, ethyl-4,5-dihydro-5,5-diphenyl-3-isoxazolcarboxylate, 1-(ethoxycarbonyl)-ethyl-3,6-dichloro-2-methoxybenzoate, (4-chloro-o-tolylloxy)-acetic acid, 2-(4-chloro-o-tolylloxy) -propionic acid, 5-chloro-quinoxalin-8-oxy-acetic acid-allylester, 5-chloro-quinolin-8-oxy-acetic acid, compounds of formula (IIa) or (IIb), 1-[4-(N-2-methoxybenzoylsulfamoyl)-phenyl]-3-methyl-urea, keto-amine compound of formula (R 16>-CO-N(R 17>)(R 18>)) or a phenyl-sulfur dioxide compound of formulae (IIc) or (IId); (3) a composition comprising (I) and at least a salt of formula ([R 29>-D +>)(R 26>)(R 27>)(R 28>)] nR 30>(n-) (IIIa); (4) a procedure for the manufacture of pesticides and/or herbicides comprising mixing (I) with a diluting agent and/or surface active materials; and (5) a procedure for increasing the effect of pesticide and/or herbicide containing an active agent of (I) comprising preparing an used agent (syringe broth) using (IIIa). R 16> : F, Cl and/or Br substituted 1-4C alkyl; either R 17> : H, optionally F, Cl and/or Br substituted 1-6C alkyl, 2-4C alkenyl or 2-4C alkynyl, 1-4C alkoxy-1-4C alkyl, dioxolanyl-1-4C alkyl, furyl, furyl-1-4C alkyl, thienyl, thiazolyl, piperidinyl, or optionally F, Cl and/or Br or 1-4C alkyl substituted phenyl; and R 18> : H, optionally F, Cl and/or Br substituted 1-6C alkyl, 2-6C alkenyl or 2-6C alkynyl, 1-4C alkoxy-1-4C alkyl, dioxolanyl-1-4C alkyl, furyl, furyl-1-4C alkyl, thienyl, thiazolyl, piperidinyl, or optionally F, Cl and/or Br or 1-4C alkyl substituted phenyl; or R 17>R 18> : at least two substituents of 1-4C alkyl, phenyl, furyl or annealed benzene ring; or CR 17>R 18> : 5-6-membered ring or 2-5C oxaalkandiyl; R 22>, R 23> : H or 1-4C alkyl; R 24> : H, optionally cyano, halo or 1-4C alkoxy substituted 1-6C alkyl, 1-6C alkoxy, 1-6C alkylthio, 1-5C alkylamino or di-(1-4C alkyl)-amino, or optionally cyano, halogen or 1-4C alkyl substituted 3-6C cycloalkyl, 3-6C cycloalkyloxy, 3-6C cycloalkylthio or 3-6C cycloalkylamino; R 25> : H, 1-6C alkyl (optionally substituted by CN, OH, halo or 1-4C alkoxy), 3-6C alkenyl or 3-6C alkynyl (both optionally substituted by CN or halo), or 3-6C cycloalkyl (optionally substituted by CN, halo or 1-4C alkyl); X 4>, X 5> : NO 2, cyano, carboxy, carbamoyl, formyl, sulfamoyl, OH, amino, halo, 1-4C alkyl, 1-4C haloalkyl, 1-4C alkoxy or 1-4C haloalkoxy; R 26>-R 29> : H or optionally substituted 1-8C alkyl or unsaturated, optionally substituted 1-8C alkylene, where the substituents are halo, nitro or cyano; R 30> : an inorganic or organic anion; n : 1-4; v, t : 0-5; m : 0-5; A 1> : a group of formula (i)-iv); n1 : 0-5; A 2> : 1 or 2 C alkanediyl (optionally substituted by 1-4C alkyl, 1-4C alkoxy, carbonyl or 1-4C alkenyloxy); R 14> : OH, SH, amino, 1-6C alkoxy, 1-6C alkylthio, 1-6C alkylamino or di-(1-4C alkyl)amino; R 15> : OH, SH, amino, 1-7C alkoxy, 1-6C alkenyloxy, 1-6C alkenyloxy-1-6C alkoxy, 1-6C alkylthio, 1-6C alkylamino or di-(1-4C alkyl)amino; R 19> : H, CN, halo or 1-4C alkyl, 3-6C cycloalkyl or phenyl (all optionally substituted by OH, CN, halo or 1-4C alkoxy); R 20> : H or 1-6C alkyl, 3-6C cycloalkyl or tri(1-4C alkyl)silyl (all optionally substituted by OH, CN, halo or 1-4C alkoxy); R 21> : H, CN, halo or 1-4C alkyl, 3-6C cycloalkyl or phenyl (all optionally substituted by F, Cl or Br); X 1> : NO 2, CN, halo, 1-4C alkyl, 1-4C haloalkyl, 1-4C alkoxy or 1-4C haloalkoxy, and X 2>, X 3> : H, CN, NO 2, halo, 1-4C alkyl, 1-4C haloalkyl, 1-4C alkoxy or 1-4C haloalkoxy. [Image] [Image] [Image] [Image] ACTIVITY : Herbicide; Pesticide; Antiparasitic; Insecticide; Plant Protectant. MECHANISM OF ACTION : None given.

IPC 8 full level
C07D 209/54 (2006.01); **A01N 43/36** (2006.01)

CPC (source: EP KR US)
A01N 43/38 (2013.01 - EP KR US); **C07D 209/54** (2013.01 - EP KR US); **C07D 209/96** (2013.01 - EP KR US)

Citation (search report)
See references of WO 2008067910A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
DE 102006057037 A1 20080605; AR 064122 A1 20090311; BR PI0720175 A2 20140415; BR PI0720175 B1 20160119; CN 101600690 A 20091209; CN 101600690 B 20120926; EP 2114880 A1 20091111; JP 2010511642 A 20100415; JP 5346296 B2 20131120; KR 20090095632 A 20090909; MX 2009005818 A 20090616; TW 200838423 A 20081001; TW 201420016 A 20140601; US 2011130284 A1 20110602; US 8993782 B2 20150331; WO 2008067910 A1 20080612; WO 2008067910 A8 20090709

DOCDB simple family (application)
DE 102006057037 A 20061204; AR P070105411 A 20071204; BR PI0720175 A 20071122; CN 200780050676 A 20071122; EP 07856208 A 20071122; EP 2007010102 W 20071122; JP 2009539632 A 20071122; KR 20097013806 A 20071122; MX 2009005818 A 20071122; TW 103101360 A 20071203; TW 96145819 A 20071203; US 51717907 A 20071122