

Title (en)

METHOD FOR PRODUCING ALKYLPHOSPHONOUS ACID SALTS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON ALKYLPHOSPHONIGSÄURESALZEN

Title (fr)

PROCÉDÉ DE PRODUCTION DE SELS D'ACIDES ALKYLPHOSPHONIQUES

Publication

EP 2563798 A2 20130306 (DE)

Application

EP 11715885 A 20110420

Priority

- DE 102010018682 A 20100429
- EP 2011002015 W 20110420

Abstract (en)

[origin: WO2011134621A2] The invention relates to a method for producing alkylphosphonous acid salts, characterised in that a) a phosphinic acid source (I) is reacted with olefins (IV) in the presence of a catalyst A to obtain an alkylphosphonous acid, the salts or esters thereof (II), b) the thus obtained alkylphosphonous acid, the salts or esters thereof (II) are reacted with metal compounds of Mg, Ca, Al, Sb, Sn, Ge, Ti, Fe, Zr, Zn, Ce, Bi, Sr, Mn, Li, Na, K and/or a protoned nitrogen base to obtain the corresponding alkylphosphonous acid salts (III) of said metals and/or a nitrogen compound, wherein R1, R2, R3, R4 are the same or different and independently of each other represent H, C1-C18-alkyl, C6-C18-aryl, C7-C18-arylalkyl, C7-C18-alkylaryl and Y represents Mg, Ca, Al, Sb, Sn, Ge, Ti, Fe, Zr, Zn, Ce, Bi, Sr, Mn, Li, Na, K and/or a nitrogen compound and n represents 1/4, 1/3, 1/2, 1 and the catalyst A is a transition metal and/or transition metal compound and/or catalyst systems which are composed of a transition metal and/or a transition metal compound and at least one ligand.

IPC 8 full level

C07F 9/48 (2006.01); **C08K 5/5393** (2006.01); **C09K 21/12** (2006.01)

CPC (source: EP US)

C07F 9/4816 (2013.01 - EP US); **C08K 5/5313** (2013.01 - EP US); **C08K 5/5393** (2013.01 - EP US); **C09K 21/04** (2013.01 - US); **C09K 21/12** (2013.01 - EP US)

Citation (search report)

See references of WO 2011134621A2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

DE 102010018682 A1 20111103; EP 2563798 A2 20130306; JP 2013531615 A 20130808; US 2013126805 A1 20130523; WO 2011134621 A2 20111103; WO 2011134621 A3 20120426

DOCDB simple family (application)

DE 102010018682 A 20100429; EP 11715885 A 20110420; EP 2011002015 W 20110420; JP 2013506527 A 20110420; US 201113643859 A 20110420