

Title (en)  
BIFUNCTIONAL PHOSPHONATE CHELATING AGENTS

Title (de)  
BIFUNKTIONELLE PHOSPHONAT-CHELATBILDNER

Title (fr)  
CHÉLATANTS BIFONCTIONNELS PHOSPHONATES

Publication  
**EP 2721040 A1 20140423 (FR)**

Application  
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Abstract (en)  
[origin: WO2012172271A1] The invention relates to compounds having formula (I), in which: A represents a nitrogen atom or a cycle containing 3 to 6 carbon atoms or an aromatic ring comprising 5 to 10 chain links, said cycle and said aromatic ring optionally comprising one or more heteroatoms chosen from N, O and S; W represents a grafting function; and X and Y represent chelating functions.

IPC 8 full level  
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CPC (source: EP US)  
**A61K 49/0002** (2013.01 - US); **A61P 7/02** (2017.12 - EP); **A61P 9/00** (2017.12 - EP); **A61P 9/10** (2017.12 - EP); **A61P 29/00** (2017.12 - EP); **A61P 31/04** (2017.12 - EP); **A61P 35/00** (2017.12 - EP); **A61P 35/02** (2017.12 - EP); **C07F 9/58** (2013.01 - EP US); **C07F 9/65583** (2013.01 - EP US)

Citation (search report)  
See references of WO 2012172271A1

Citation (examination)  
• US 5441945 A 19950815 - YOSHIKAWA KATSUHIRO [JP]  
• US 2004138467 A1 20040715 - FRENCH ROGER HARQUAIL [US], et al  
• VELI-MATTI MUKKALA ET AL: "Influence of Chelating Groups on the Luminescence Properties of Europium(III) and Terbium(III) chelates in the 2,2'-bipyridine series", HELVETICA CHIMICA ACTA, vol. 76, no. 2, 24 March 1993 (1993-03-24), CH, pages 893 - 899, XP055269184, ISSN: 0018-019X, DOI: 10.1002/hlca.19930760213  
• JUN-LING SONG ET AL: "Novel Hybrid Porous 3D Networks of Lead(II) Diphosphonate and Triphosphonate Containing 1,3,5-Benzenetricarboxylate", EUROPEAN JOURNAL OF INORGANIC CHEMISTRY., vol. 2003, no. 23, 1 December 2003 (2003-12-01), DE, pages 4218 - 4226, XP055269185, ISSN: 1434-1948, DOI: 10.1002/ejic.200300417

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DOCDB simple family (publication)  
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**FR 2012051360 W 20120618**; CN 201280036024 A 20120618; EP 12731581 A 20120618; JP 2014515271 A 20120618; US 201214126486 A 20120618