

Title (en)

Use of transition metal complexes as bleach catalysts

Title (de)

Verwendung von Übergangsmetallkomplexen als Bleichkatalysatoren

Title (fr)

Utilisation de complexes de métaux de transition comme catalyseurs de blanchiment

Publication

EP 1445305 B1 20060927 (DE)

Application

EP 04001912 A 20040129

Priority

DE 10304131 A 20030203

Abstract (en)

[origin: EP1445305A1] Use is claimed of nitrogen ligand-containing transition metal complexes as catalysts for peroxy compounds. Use is claimed of nitrogen ligand-containing transition metal complexes of formula (I) as catalysts for peroxy compounds. M(L)_nX_m (I) M : Mn, Fe, Co, Ni, Mo or W; L : a nitrogen-containing heterocyclic ligand; X = chloride, bromide, nitrate, perchlorate, sulfate, ammonia, tetrafluoroborate, hexafluorophosphate or an anion of a 1-22C organic acid; n : integer 2-4; and m : integer 0-4. Independent claims are also included for detergent, bleaching and cleansing agents containing (I).

IPC 8 full level

C11D 3/39 (2006.01); **D06L 3/02** (2006.01); **C07F 13/00** (2006.01); **C07F 15/02** (2006.01); **C11D 7/18** (2006.01); **C11D 7/32** (2006.01); **C11D 7/38** (2006.01); **C11D 7/54** (2006.01)

CPC (source: EP US)

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Cited by

EP2857486A1; EP3524347A1; US8536334B2; WO2013060706A1; EP2857487A1; WO2009141258A1; EP2857485A1; WO2015051901A1; US10214606B2; WO2010115582A1; DE102009017722A1; US8486881B2; US8293910B2; DE102013004428A1; DE102012015826A1; WO2014023427A1; US9777249B2; WO2010115581A1; DE102009017724A1; US8883704B2; WO2012000846A1; WO2014154508A1; US9790452B2; DE102008045207A1; US8927478B2; DE102013019269A1; WO2017186480A1; WO2013060708A1; WO2018210442A1; DE102017004742A1; US11268048B2

Designated contracting state (EPC)

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DOCDB simple family (application)

EP 04001912 A 20040129; DE 10304131 A 20030203; DE 502004001553 T 20040129; ES 04001912 T 20040129; JP 2004025638 A 20040202; US 76996304 A 20040202