

Title (en)  
ENZYMATIC SYSTEMS FOR GENERATING ACTIVE OXYGEN SPECIES FOR REACTING WITH OTHER PRECURSORS TO OBTAIN  
OXIDATION AND/OR BLEACHING

Title (de)  
ENZYMATISCHE SYSTEME ZUR GENERIERUNG AKTIVER SAUERSTOFFSPEZIES ZUR REAKTION MIT ANDEREN PRECURSERN ZUR  
OXIDATION UND/ODER BLEICHE

Title (fr)  
SYSTEMES ENZYMATIQUES DE REGENERATION D'ESPECES A OXYGENE ACTIF DESTINEES A REAGIR AVEC D'AUTRES PRECURSEURS  
POUR PERMETTRE L'OXYDATION ET/OU LE BLANCHIMENT

Publication  
**EP 1436371 A2 20040714 (DE)**

Application  
**EP 02742791 A 20020604**

Priority  
• DE 0202035 W 20020604  
• DE 10126988 A 20010605

Abstract (en)  
[origin: DE10126988A1] The invention relates to oxidation and bleaching systems consisting of: A) a component that enzymatically generates peroxide or superoxide or another reactive oxygen species (ROS), which slowly and continuously provides said (ROS) and B) a special precursor component, which is either formed enzymatically or represents an oxidizable compound or a reactive compound in relation to (A). The special precursor component in (B) consists of either: 1) special compounds that can release NO, NO<+> or NO<-> enzymatically or in situ, which together with (A) form reactive nitrogen species (RNS), such as e.g. peroxynitrite or the corresponding protonated acidic form or 2) dicyclopentadienyl transition metal complexes, which can activate the peroxide provided by (A), or 3) special organosulphonic acids or activated sulphite, which can generate e.g. dioxiranes in conjunction with (A) and ketones.  
[origin: DE10126988A1] A system for oxidation or bleaching comprises components slowly and continuously enzymatically generating peroxide, superoxide or other reactive oxygen species (ROS), and a specified precursor which is either formed enzymatically or is an oxidizable or (A)-reactable compound. Oxidation or bleaching systems, comprising: (a) components slowly and continuously enzymatically generating peroxide, superoxide or other reactive oxygen species (ROS); and (b) a precursor which is either formed enzymatically or is an oxidizable or (a)-reactable compound comprising either: (i) compounds which enzymatically or in-situ set free NO, NO<+> or NO<-> which react with (a) to form reactive nitrogen species (RNS) (e.g. peroxynitrites or the corresponding protonated acids); (ii) dicyclopentadienyl-transition metal complexes which can activate peroxides produced by (a); or (iii) organosulfonic acids or activated sulfites which can be generated in association with (a) and ketones, e.g. dioxiranes.

IPC 1-7  
**C11D 1/00**

IPC 8 full level  
**C12S 3/08** (2006.01); **D21C 5/00** (2006.01); **D21C 9/16** (2006.01)

CPC (source: EP)  
**C11D 3/38654** (2013.01); **D21C 5/005** (2013.01); **D21C 9/163** (2013.01)

Citation (search report)  
See references of WO 02099023A2

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**DE 10126988 A1 20021212**; AU 2002344340 A1 20021216; CA 2488599 A1 20021212; EP 1436371 A2 20040714; WO 02099023 A2 20021212; WO 02099023 A3 20030530

DOCDB simple family (application)  
**DE 10126988 A 20010605**; AU 2002344340 A 20020604; CA 2488599 A 20020604; DE 0202035 W 20020604; EP 02742791 A 20020604