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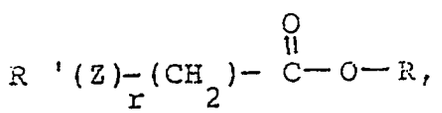
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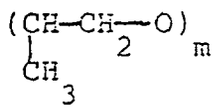
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(54) Proteolytic perhydrolysis system and method of use for bleaching.

(57) A perhydrolysis system or activated oxidant system for in situ generation of peracid in aqueous solutions is disclosed, including: (a) a protease enzyme; (b) an ester substrate having the structure



wherein R = C_{1-11}-alkyl, R′ = C_{1-10}-alkyl or H,
Z = O or
a polyalkoxy residue of the formula $(CH_2CH_2O)_m$ or



wherein m = 0-10,
r = 0 or 1;
R and R′ optionally having OH-substituents pendant on or terminating the hydrocarbyl chains, and (c) a source of peroxygen capable of reacting with the protease (a) and the ester substrate (b) to result in proteolytic production of of peracid.

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EUROPEAN SEARCH REPORT

Application Number

EP 89 11 6326

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
D,Y	EP-A-0 253 487 (THE CLOROX CO.) * Abstract; page 1, line 7 - page 12, line 21; page 52, line 1 - page 55, line 3; claims 1-4,10,13-17 *	1-7	C 11 D 3/386 C 11 D 3/39
D,Y	US-A-3 974 082 (H.F. WEYN) * Abstract; Column 1, line 5 - column 3, line 22; example 3; column 9, lines 1-24; claims 1,2,4,6,7 *	1-7	
Y	FR-A-2 116 046 (PROCTER & GAMBLE EUROPEAN TECHNICAL CENTER) * Complete *	1,3,5-7	
A	US-A-4 511 490 (A.G. STANISLOWSKI et al.) * Complete *		

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

C 11 D

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	30 July 91	FISCHER W.H.F.

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
Y: particularly relevant if combined with another document of the same catagory
A: technological background
O: non-written disclosure
P: intermediate document
T: theory or principle underlying the invention

E: earlier patent document, but published on, or after the filing date
D: document cited in the application
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