



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 621 604 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
12.04.2006 Bulletin 2006/15

(51) Int Cl.:
C11D 3/00 (2006.01) **C11D 17/04** (2006.01)
C11D 3/37 (2006.01) **C11D 3/22** (2006.01)

(43) Date of publication A2:
01.02.2006 Bulletin 2006/05

(21) Application number: **05425530.2**

(22) Date of filing: **22.07.2005**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR**
Designated Extension States:
AL BA HR MK YU

(30) Priority: **29.07.2004 WOPCT/IT20/04000419**

(71) Applicant: **Orlandi S.p.A.**
20121 Milan (IT)

(72) Inventor: **Orlandi, Vittorio**
20121 Milano (IT)

(74) Representative: **Long, Giorgio et al**
Jacobacci & Partners S.p.A.
Via Senato, 8
20121 Milano (IT)

(54) **Colour scavenger material**

(57) The present invention relates to a dye-scavenger material for the colour released by laundry in washing water comprising a substrate in natural and/or synthetic fabric, non-woven natural and/or synthetic fabric, and paper, and an additive comprising cationic heterocyclic pol-

ymers, proteins, chitin, chitosan, polyvinylamine (PVA), polyethylenimine (PEI), acrylic polymers, vinylic polymers, polyamine-N-oxide and their blends. The invention also relates to a process for obtaining said material.

EP 1 621 604 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 42 5530

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 99/15614 A (ISP INVESTMENTS INC) 1 April 1999 (1999-04-01) * claims; examples 10,11 * -----	1-25	C11D3/00 C11D17/04 C11D3/37 C11D3/22
Y	EP 1 083 218 A (NATIONAL STARCH AND CHEMICAL INVESTMENT HOLDING CORPORATION) 14 March 2001 (2001-03-14) * paragraph [0023]; claims; examples * -----	1-25	
Y	US 2002/119721 A1 (PANANDIKER RAJAN KESHAV ET AL) 29 August 2002 (2002-08-29) * paragraph [0063]; claims; examples * -----	1-25	
X	US 2003/118730 A1 (AOUAD YOUSEF GEORGES ET AL) 26 June 2003 (2003-06-26) * paragraphs [0047], [0052]; claims; examples * -----	1-25	
P,X	WO 2004/067691 A (LITTLE ISLAND PATENTS LTD) 12 August 2004 (2004-08-12) * the whole document * -----	1-25	
			TECHNICAL FIELDS SEARCHED (IPC)
			C11D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 31 October 2005	Examiner Hillebrecht, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category 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 L : document cited for other reasons & : member of the same patent family, corresponding document			

1
EPO FORM 1503 03.82 (P04C01)



European Patent
Office

Application Number

EP 05 42 5530

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-25



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-25

Dye-scavenger material comprising a substrate and an additive, which is a cationic heterocyclic polymer

2. claims: 1-25

Dye-scavenger material comprising a substrate and an additive, which is a protein

3. claims: 1-25

Dye-scavenger material comprising a substrate and an additive, which is chitin or chitosan

4. claims: 1-25

Dye-scavenger material comprising a substrate and an additive, which is a polyvinylamine or a polyethyleneimine

5. claims: 1-25

Dye-scavenger material comprising a substrate and an additive, which is an acrylic polymer or a vinylic polymer

6. claims: 1-25

Dye-scavenger material comprising a substrate and an additive, which is a polyamine-N-oxide

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 42 5530

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

31-10-2005

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9915614 A	01-04-1999	AT 260333 T	15-03-2004
		AU 750596 B2	25-07-2002
		AU 9379498 A	12-04-1999
		BR 9812220 A	18-07-2000
		CA 2304106 A1	01-04-1999
		CN 1271379 A	25-10-2000
		DE 69821960 D1	01-04-2004
		DE 69821960 T2	23-12-2004
		EP 1023430 A1	02-08-2000
		JP 2001517730 T	09-10-2001
		NZ 503045 A	26-04-2002
EP 1083218 A	14-03-2001	AU 5654700 A	15-03-2001
		CA 2317894 A1	10-03-2001
		JP 2001146507 A	29-05-2001
		US 6306815 B1	23-10-2001
US 2002119721 A1	29-08-2002	US 2006019564 A1	26-01-2006
US 2003118730 A1	26-06-2003	NONE	
WO 2004067691 A	12-08-2004	EP 1592769 A1	09-11-2005