

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets

(11)

Publication number:

**0 273 775  
A3**

(12)

## EUROPEAN PATENT APPLICATION

(21)

Application number: **87311536.4**

(51)

Int. Cl.4: **C11D 3/42 , C11D 3/395 ,  
C11D 3/40 , C11D 3/50**

(22)

Date of filing: **31.12.87**

(30)

Priority: **31.12.86 GB 8631101  
08.10.87 GB 8723616**

(43)

Date of publication of application:  
**06.07.88 Bulletin 88/27**

(84)

Designated Contracting States:  
**AT BE CH DE ES FR GB GR IT LI LU NL SE**

(88)

Date of deferred publication of the search report:  
**26.04.89 Bulletin 89/17**

(71)

Applicant: **Albright & Wilson Limited  
Albright & Wilson House Hagley Road West  
Oldbury Warley West Midlands, B68  
ONN(GB)**

(72)

Inventor: **Messenger, Edward Tunstall  
Ramsey House Camerton  
Workington, Cumbria(GB)  
Inventor: Martin, Anthony  
114 Newlands Lane  
Workington, Cumbria(GB)**

(74)

Representative: **Savidge, Roger Gordon  
Madgwick et al  
c/o Albright & Wilson Limited 1  
Knightsbridge Green  
London SW1X 7QD(GB)**

(54)

**Protected optical brighteners.**

(57)

Protected additives for use in cleaning compositions such as liquid laundry detergents comprises an optical brightener, bleach, photoactive bleach, perfume, blueing agent or dye dispersed in, or coated with, a hydrophobic substance such as silicone oil or a hydrocarbon, which is insoluble in concentrated liquid detergent but which is disrupted under normal cleaning conditions.

**EP 0 273 775 A3**



EP 87 31 1536

| 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.4)             |
| X                                                                                                                                                                                                                       | EP-A-0 206 718 (CLOROX)<br>* Page 3, lines 8-17; page 9, lines 5-11; examples; claims * | 1                                                                                                                                                                                                                                                                                     | C 11 D 3/42<br>C 11 D 3/395<br>C 11 D 3/40<br>C 11 D 3/50 |
| X                                                                                                                                                                                                                       | US-A-4 708 816 (D.M. CHANG et al.)<br>* Claims *                                        | 1-2                                                                                                                                                                                                                                                                                   |                                                           |
| A                                                                                                                                                                                                                       | US-A-4 090 973 (E.J. MAGUIRE, Jr. et al.)<br>* Claims *                                 | 1                                                                                                                                                                                                                                                                                     |                                                           |
| P,X                                                                                                                                                                                                                     | EP-A-0 238 216 (ALBRIGHT & WILSON)<br>* Claims *                                        | 1-17                                                                                                                                                                                                                                                                                  |                                                           |
|                                                                                                                                                                                                                         |                                                                                         |                                                                                                                                                                                                                                                                                       | TECHNICAL FIELDS SEARCHED (Int. Cl.4)                     |
|                                                                                                                                                                                                                         |                                                                                         |                                                                                                                                                                                                                                                                                       | C 11 D                                                    |
| The present search report has been drawn up for all claims                                                                                                                                                              |                                                                                         |                                                                                                                                                                                                                                                                                       |                                                           |
| Place of search<br>THE HAGUE                                                                                                                                                                                            |                                                                                         | Date of completion of the search<br>01-02-1989                                                                                                                                                                                                                                        | Examiner<br>GOLLER P.                                     |
| CATEGORY OF CITED DOCUMENTS                                                                                                                                                                                             |                                                                                         |                                                                                                                                                                                                                                                                                       |                                                           |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                         | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |                                                           |