

DWPI サンプルレコード(Dialog)

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DWPI タイトル

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Pigment dispersion composition useful for producing color filter comprises pigment, binder resin, dispersant, and solvent where the pigment is blue anthraquinone pigment

出願人
発明者

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DWPI ファミリー情報

Patent Family (5 patents, 4 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20080145772	A1	20080619	US 2007877903	A	20071024	200848	B
CN 101206398	A	20080625	CN 200710163798	A	20071108	200856	E
KR 2008055111	A	20080619	KR 2006128028	A	20061214	200875	E
TW 200831615	A	20080801	TW 2007136721	A	20071001	200925	E
US 7618486	B2	20091117	US 2007877903	A	20071024	200975	E

公報番号 種別 発行日 出願番号 更新週

優先権情報

Priority Applications (no., kind, date): KR 2006128028 A 20061214

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20080145772	A1	EN	8	1	
TW 200831615	A	ZH			

DWPI 抄録

Alerting Abstract US A1

NOVELTY - A pigment dispersion composition (C1) comprises pigment (A1), binder resin, dispersant, and solvent. The pigment (A1) is a blue anthraquinone pigment.

DESCRIPTION - A pigment dispersion composition (C1) comprises pigment, binder resin, dispersant, and solvent. The pigment is a blue anthraquinone pigment of formula (I).

X= H or Cl.

USE - In the production of a color filter useful for color imaging device such as complementary metal oxide semiconductor (CMOS) or a charge coupled device (CCD) (all claimed).

ADVANTAGE - The composition has a high transmittance (such as transmittance of 75-95%); has high dispersion stability; and exhibits excellent color separation.

テクノロジーフォーカス

Technology Focus

INORGANIC CHEMISTRY - Preferred Components: The water-soluble inorganic salt is sodium chloride or potassium chloride.

ORGANIC CHEMISTRY - Preferred Components: The pigment (A1) is pretreated with a water-soluble inorganic salt and a wetting agent. The pretreated pigment has an average particle diameter of 50-100 nm. The pretreated pigment has a spherical particle shape. The wetting agent is selected from alkylene glycol monoalkyl ethers and/or alcohols. The alkylene glycol monoalkyl ether is selected from ethylene glycol monoethyl ether, propylene glycol monomethyl ether, diethylene glycol monomethyl ether and/or ethylene glycol monoethyl ether. The alcohol is selected from ethanol, isopropanol, butanol, hexanol, cyclohexanol, ethylene glycol, diethylene glycol, polyethylene glycol and/or glycerin polyethylene glycol. The pigment is pretreated with sodium chloride and polyethylene glycol.

POLYMERS - Preferred Composition: The composition (C1) further comprises a colorant derivative (1-20 parts by weight (pbw)) containing naphthalene, anthraquinone, phthalocyanine, diketopyrrolopyrrole or azo pigment or dye

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拡張抄録

**Extension Abstract**

SPECIFIC COMPOUNDS - 2 Pigment Compounds are specifically claimed as the blue anthraquinone pigment: C. I. Pigment blue 60 (Ia) and C. I. Pigment blue 64.

EXAMPLE - A dry powder (H1) of the C. I. Pigment blue 60 comprising (parts by weight): C. I. Pigment Blue 60 (1), sodium chloride (10) and polyethylene glycol 400 (4) was prepared. A composition comprising (parts by weight): dry powder (H1) of the C. I. Pigment blue 60 (15), polyester dispersant (20), polybenzyl methacrylate resin (8), propylene glycol methyl ethyl acetate (55), and **Solsperse 5000** (RTM: Colorant derivative).

**Title Terms /Index Terms/Additional Words:** PIGMENT; DISPERSE; COMPOSITION; USEFUL; PRODUCE; COLOUR; FILTER; COMPRISE; BIND; RESIN; SOLVENT; BLUE; ANTHRAQUINONE

IPC

**Class Codes**

| International Patent Classification |             |       |          |        |              |
|-------------------------------------|-------------|-------|----------|--------|--------------|
| IPC                                 | Class Level | Scope | Position | Status | Version Date |
| C08K-0005/16                        | A           | I     | F        | B      | 20060101     |
| C08K-0005/16                        | A           | I     | L        | B      | 20060101     |
| C08K-0007/08                        | A           | I     | L        | B      | 20060101     |
| C09B-0001/467                       | A           | I     | F        |        | 20060101     |
| C09B-0005/48                        | A           | I     | F        | B      | 20060101     |
| C09B-0067/38                        | A           | I     | L        | B      | 20060101     |
| C09D-0017/00                        | A           | I     | L        |        | 20060101     |
| G02B-0005/20                        | A           | I     | L        | B      | 20060101     |
| G02B-0005/22                        | A           | I     | L        | B      | 20060101     |
| G02B-0005/23                        | A           | I     | L        | B      | 20060101     |
| G03F-0001/00                        | A           | I     | L        | B      | 20060101     |
| G03F-0007/004                       | A           | I     | F        | B      | 20060101     |
| G03F-0007/027                       | A           | I     | L        | B      | 20060101     |
| H01L-0031/0232                      | A           | I     | F        | B      | 20060101     |
| C08K-0005/00                        | C           | I     | F        | B      | 20060101     |
| C08K-0005/00                        | C           | I     | L        | B      | 20090101     |
| C08K-0007/00                        | C           | I     | L        | B      | 20090101     |
| C09B-0001/00                        | C           | I     |          |        | 20060101     |
| C09B-0005/00                        | C           | I     |          | B      | 20060101     |
| C09B-0067/00                        | C           | I     |          | B      | 20060101     |
| C09D-0017/00                        | C           | I     |          |        | 20060101     |
| G02B-0005/20                        | C           | I     |          | B      | 20060101     |
| G02B-0005/22                        | C           | I     | L        | B      | 20060101     |
| G03F-0001/00                        | C           | I     | L        | B      | 20060101     |
| G03F-0007/004                       | C           | I     | F        | B      | 20060101     |
| G03F-0007/027                       | C           | I     | L        | B      | 20060101     |
| H01L-0031/0232                      | C           | I     | F        | B      | 20090101     |

**ECLA:** C09B-005/48

**US Classification, Current** Main: 106-287250, 430-007000; Secondary: 106-493000, 106-498000, 257-294000, 257-432000, 257-E31121, 359-885000

**US Classification, Issued:** 4307, 106498, 106287.25, 106493, 359885, 257294, 257432, 257E31.121

File Segment: CPI; EngPI; EPI

DWPI Class: A14; A23; A25; A89; E22; L03; U11; U13; P84

欧州特許分類  
米国特許分類

DWPI クラス

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| <p>マニュアルコード</p>          | <p>Manual Codes (EPI/S-X): U11-C18D; U13-A02; U13-D02A<br/> Manual Codes (CPI/A-N): A08-E03B; A08-S02; A08-S05; A12-L03D; A12-L05C1; E22-E02; L03-G02B; L04-E05A; L04-E05F</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>ケミカルフラグメンテーションコード</p> | <p><b>Chemical Indexing</b><br/> Chemical Fragment Codes (M3):<br/> *04* M905 M904 H7 H721 J0 J011 J2 J271 M210 M212 M213 M232 M262 M272 M281 M320 M423 M424 M510 M520 M530 M540 M740 M782 Q454 R024 RA04WP-K RA04WP-M 104403-K 104403-M<br/> *05* M905 M904 K0 L4 L463 L499 M280 M312 M313 M314 M315 M323 M332 M342 M383 M393 M423 M424 M510 M520 M530 M540 M620 M740 M782 Q454 R024 R16492-K R16492-M 104486-K 104486-M<br/> *06* M905 M904 H1 H101 H102 H183 M280 M312 M323 M332 M342 M383 M393 M423 M424 M510 M520 M530 M540 M620 M740 M782 Q454 R024 R14108-K R14108-M 173429-K 173429-M<br/> *07* M905 M904 H7 H714 H721 J0 J011 J1 J171 M210 M212 M262 M281 M320 M423 M424 M510 M520 M530 M540 M630 M740 M782 Q454 R024 RA02L0-K RA02L0-M RA037T-K RA037T-M 104380-K 104380-M 199392-K 199392-M<br/> ~~~~~</p> <p>Ring Index Numbers: (Linked) 07265; 07265; 07265<br/> Specific Compound Numbers: RA04WP-K; RA04WP-M; R16492-K; R16492-M; R14108-K; R14108-M; RA02L0-K; RA02L0-M; RA037T-K; RA037T-M; RA044D-K; RA044D-M; R03793-K; R03793-M; R17881; R24007; R00653; R00578; R00926; R00245; R00271; R00866; R00506; R00351; R00351<br/> Generic (Markush) Compound Numbers: 1015-87301-K; 1015-87301-M; 1015-87301-CL; 1015-87301-USE<br/> Derwent Chemistry Resource Numbers: (Linked) 104403-K; 104403-M; 104486-K; 104486-M; 173429-K; 173429-M; 104380-K; 104380-M; 199392-K; 199392-M; 205699-K; 205699-M; 130894-K; 130894-M; 205699-CL; 205699-USE; 130894-CL; 130894-USE; 104403-CL; 104403-USE; 104486-CL; 104486-USE; 173429-CL; 173429-USE; 104380-CL; 104380-USE; 133830; 59929; 23522; 178; 167; 6; 33; 774; 8687; 444; 444</p> <p>Key Word Indexing<br/> *1* 205699-USE 130894-USE 104403-USE 104486-USE 173429-USE 104380-USE 1015-87301-USE</p> |
| <p>ポリマーインデキシングコード</p>    | <p><b>Polymer Indexing</b><br/> (01)<br/> *001* 2004; G0419 G0384 G0339 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D63 F41 F89 D11 D86 F34 F28 F26; H0000; S9999 S1014-R; P0088<br/> *002* 2004; G0384 G0339 G0260 G0022 D01 D11 D10 D12 D26 D51 D53 D58 D63 D92 F41 F89 R17881-R 133830-R; H0000; S9999 S1014-R; P0088<br/> *003* 2004; G0384 G0339 G0260 G0022 D01 D11 D10 D12 D19 D18 D26 D31 D51 D53 D58 D63 D76 D91 F41 F89 R24007-R 59929-R; H0000; S9999 S1014-R; P0088<br/> *004* 2004; G0384 G0339 G0260 G0022 D01 D11 D10 D12 D26 D51 D53 D58 D63 D86 F41 F89 R00653-R 23522-R; H0000; S9999 S1014-R; P0088<br/> *005* 2004; G0260-R G0022 D01 D12 D10 D26 D51 D53; H0000; S9999 S1014-R; H0011-R; P0088<br/> *006* 2004; Q9999 Q6791; Q9999 Q9450 Q8264; Q9999 Q8651 Q8606; Q9999 Q8617-R Q8606; B9999 B4397 B4240; K9870 K9847 K9790; B9999 B4739 B4568; B9999 B4262 B4240; ND01; ND04<br/> *007* 2004; D21-R D18 D97 D35 D79 D50 D28 D95 H- CI 7A F23 F09 F07; A999 A102 A077<br/> ~~~~~</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>公報レベル</p>             | <p><b>Original Publication Data by Authority</b><br/><br/> China</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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| <p>オリジナルタイトル<br/>出願人<br/>発明者</p> | <p><b>Publication No.</b> CN 101206398 A (Update 200856 E)<br/> <b>Publication Date:</b> 20080625<br/> <b>Pigment dispersing composition for preparing colour filter and colour filter</b><br/> <b>Assignee:</b> CHEIL WOOL FABRIC CO LTD; KR (CHEI-N)<br/> <b>Inventor:</b> JEONG E J<br/> PARK T W<br/> KIM J<br/> KIM S<br/> <b>Language:</b> ZH<br/> <b>Application:</b> CN 200710163798 A 20071108 (Local application)<br/> <b>Priority:</b> KR 2006128028 A 20061214<br/> <b>Original IPC:</b> G02B-5/22(I,M,98,20060101,C) G02B-5/23(I,CN,20060101,A,L)<br/> G03F-7/004(I,CN,20060101,A,F) G03F-7/004(I,M,98,20060101,C)<br/> G03F-7/027(I,CN,20060101,A,L) G03F-7/027(I,M,98,20060101,C)<br/> <b>Current IPC:</b> G02B-5/22(B,A,I,H,CN,20060101,20080625,C,L)<br/> G02B-5/23(B,I,H,CN,20060101,20080625,A,L) G03F-7/004(B,I,H,CN,20060101,20080625,A,F)<br/> G03F-7/004(B,I,H,CN,20060101,20080625,C,F)<br/> G03F-7/027(B,I,H,CN,20060101,20080625,A,L)<br/> G03F-7/027(B,I,H,CN,20060101,20080625,C,L)<br/> <b>Current ECLA class:</b> C09B-5/48</p> |
| <p>オリジナル抄録</p>                   | <p><b>Original Abstract:</b> The invention claims a pigment dispersing composition for preparing colour filter and colour filter. The pigment dispersing composition comprises pigment, agglomerant resin, dispersant and solvent. Said pigment is blue anthraquinone pigment which is processed by water soluble inorganic salt and wetting agent. Said pigment dispersing composition can be applied to preparing colour filter of colour imager, which comprises good colour dispersion and high light transmittance.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>請求項</p>                       | <p><b>Claim:</b> [CLAIM 1] A pigment dispersing composition for preparing colour filter comprises pigment, agglomerant resin, dispersant and solvent, wherein said pigment is blue anthraquinone pigment shown as formula 1; FORMULA 1; wherein each X is independently hydrogen or chlorine atom.<br/> [CLAIM 2] The composition according to claim 1, wherein said pigment is processed by water soluble inorganic salt and wetting agent.<br/> [CLAIM 3] The composition according to claim 2, wherein the average particle diameter D50 of said pre-processed pigment is about 50 to about 100 nm.<br/> ~~~~~</p>                                                                                                                                                                                                                                                                                                                                                                                                                                         |