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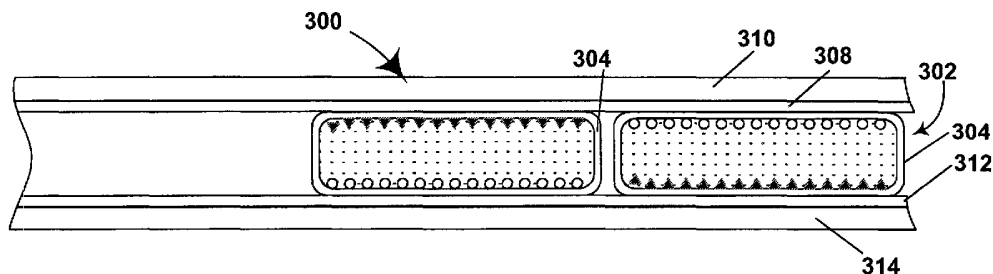
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— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- Published:**  
— *with international search report*  
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: ELECTRO-OPTIC DISPLAYS



(57) Abstract: The invention provides an electrophoretic medium comprising at least two types of particles having substantially the same electrophoretic mobility but differing colors. The invention also provides article of manufacture (300) comprising a layer of a solid electro-optic medium (302), a first adhesive layer (308) on one surface of the electro-optic medium (302), a release sheet (310) covering the first adhesive layer (308), and a second adhesive layer (312) on an opposed second surface of the electro-optic medium (302).

## INTERNATIONAL SEARCH REPORT

Inte Application No

Pct/us 03/27686

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 G02F1/167 G09F9/37

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G02F G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 391 014 A (FAUSER DONALD L) 2 July 1968 (1968-07-02)	1,2
Y	column 2, line 23 - line 69	3-5
A	column 7, line 18 - column 8, line 22 abstract	6-10
Y	----- US 6 017 584 A (ALBERT JONATHAN D ET AL) 25 January 2000 (2000-01-25) cited in the application	3-5
A	column 2, line 45 - column 4, line 29 column 5, line 59 - column 6, line 61 column 8, line 56 - column 9, line 25 column 12, line 54 - column 13, line 32 column 15, line 10 - line 20 column 17, line 40 - column 18, line 48 column 7, line 18 - column 8, line 22 abstract ----- -/--	6-10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## ° Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

18 December 2003

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## INTERNATIONAL SEARCH REPORT

International Application No

03/27686

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/092359 A (FORSCH PIGMENTE UND LACKE E V ;SCHMIDT FRIEDRICH GEORG (DE); KERN) 6 December 2001 (2001-12-06) page 3, line 16 - line 32 page 6, line 18 - page 7, line 29 -----	1-10

# INTERNATIONAL SEARCH REPORT

International application No.  
T/US 03/27686

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-10

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

## 1. claims: 1-10

Electrophoretic medium with two types of particles having substantially the same electrophoretic mobility but different colors, and a process of forming this medium.  
The special technical feature is:

Subjecting a mixed pigment formed by two pigments of differing colors to a surface treatment in order to form said two types of particles.

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## 2. claims: 11-12

Electro-optic display with an addressing electrode.  
The special technical feature is:

An "optical biasing" element varying in different portions of the electro-optic display and forming a color filter.

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## 3. claims: 13-14

Electrophoretic medium with an encapsulated suspension of charged particles and a color filter array.  
The special technical feature is:

The color filter has non-rectangular pixels.

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## 4. claims: 15-16

Electrooptic display with an electro-optic medium, at least one electrode and a color filter therebetween.  
The special technical feature is:

The color filter has a resistance substantially not greater than that of the electro-optic medium.

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## 5. claims: 17-27

An article of manufacture having a layer of solid electro-optic medium and a method of laminating this article with substrates such as to form an electro-optic display.  
The special technical feature is:

The arrangement of adhesive and/or release sheets.

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## 6. claim: 28

A method of forming a color filter array.

The special technical feature is:

Imaging a photosensitive film and depositing a conductive layer thereon.

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7. claims: 29-31

A process involving an electrophoretic display with an electrophoretic medium comprising an encapsulated electrophoretic suspension of electrically charged particles.

The special technical feature is:

Depositing the electrophoretic medium either on a color filter array or on a surface treated electrode.

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8. claim: 32

A process of forming an electrophoretic display comprising an encapsulated electrophoretic suspension of electrically charged particles between a backplane and a front substrate.

The special technical feature is:

Assembling the surface treated backplane and the surface treated front substrate and filling the electrophoretic medium in the gap between the backplane and the front substrate.

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International Application No

S 03/27686

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