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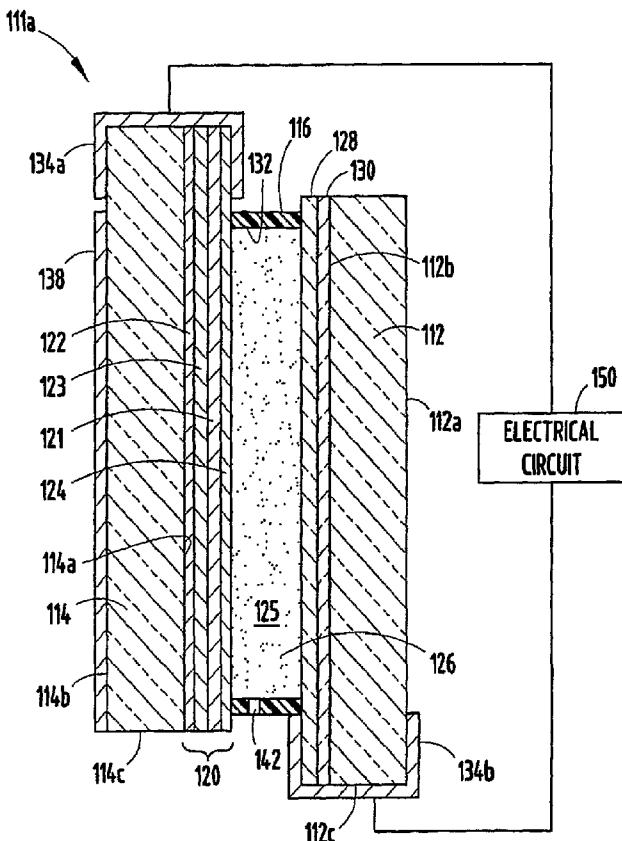
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[Continued on next page]

(54) Title: ELECTRO-OPTICAL ELEMENT INCLUDING METALLIC FILMS AND METHODS FOR APPLYING THE SAME



(57) Abstract: A method for manufacturing an electrochromic element comprises providing a first substrate having first and second surfaces and a first edge surface, providing a second substrate having third and fourth surfaces and a second edge surface, the third surfaces facing the second surface, providing an electrochromic medium located between the first and second substrates, the medium having a light transmittance that is variable upon application of electric field thereto, applying a conductive layer on a portion of at least one of the surfaces, wherein applying the layer is accomplished at substantially atmospheric pressure, and applying at least one of metallic particles, an organometallic, a metallo-organic, and combinations thereof, wherein the conductive layer has a bulk resistivity of greater than or equal to 150 microhm•cm. The conductive layer may be applied via ink jetting, ultrasonic spraying, auger or jet pumping.

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**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G02F 1/15 (2006.01)

USPC - 359/285

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)

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USPC- 359/265

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
USPC-359/245,265-267,601-605,638; 307/10.1- see keyword below

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

PubWEST (USPT, PGPB, EPAB, JPAB); DialogPRO (Engineering and Patent); Google Scholar

Search Terms: electro-optic, electrochromic, laser, jet, sintering, chemical vapor, auger pumping, jet pumping, conductive, layer, metal, vapor, flame spray, display, conductive, uv, curing, combustion

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/0195488 A1 (McCabe et al.) 08 September 2005 (08.09.2005) entire document especially Fig. 25, para [0080], [0091], [0012], [0093], [0133], [0140], [0145], [0151], [0168], [0204], [0205], [0211], [0214], [0248], and [0278]	1-3, 10-12, 15-22, 24, 26-30, 40-41, 43, 45-51, 53, and 55-59
Y		4-9, 13-14, 23, 25, 31-39, 42, 44, 52, and 54
Y	US 2006/0001726 A1 (Kodas et al.) 05 January 2006 (05.01.2006), para [0030], [0031], and [0170]	13-14, 23, 25, 31-39, 42, 44, 52, and 54
Y	US 2005/0286132 A1 (Tonar et al.) 29 December 2005 (29.12.2005), para [0084], [0099], and [0119]	4-9

Further documents are listed in the continuation of Box C.

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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

"Z" document member of the same patent family

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