

(19)



(11)

**EP 1 787 810 A3**

(12)

**EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**05.12.2007 Bulletin 2007/49**

(51) Int Cl.:  
**B41C 1/10 (2006.01)**

(43) Date of publication A2:  
**23.05.2007 Bulletin 2007/21**

(21) Application number: **06121704.8**

(22) Date of filing: **04.10.2006**

(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: **10.11.2005 EP 05110568**

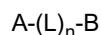
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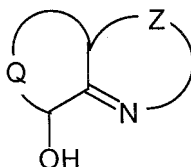
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(54) **Lithographic printing plates comprising bi-functional compounds.**

(57) A heat-sensitive lithographic printing plate precursor comprising on a grained and anodized aluminum support a compound which is capable of converting from a hydrophobic state to a hydrophilic state or vice versa upon exposure to heat, and is represented by the following formula:



wherein L represents a linking group, n represents 0 or 1 and B represents a thermo-labile group; characterized in that the compound further comprises the group A which is a functional group capable of interacting with the surface of a grained and anodized aluminum support and is selected from the list consisting of a halosilanyl group, an alkoxysilanyl group, a phosphonic acid group or a salt thereof, a phosphoric acid group or a salt thereof, a salicylic acid group or a salt thereof, a boronic acid group or an ester or a salt thereof, an optionally substituted di or tri-hydroxyaryl group, an optionally substituted salicaldoxime group, an optionally substituted salicaldimine group, an optionally substituted hydroxyheteroaryl group, an amidine group, a 1,3-dicarbonyl group or a group represented by the formula (i)



(i)

wherein Q and Z independently represent the necessary atoms to form an optionally substituted five or six membered aromatic or heteroaromatic ring.

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# EUROPEAN SEARCH REPORT

Application Number  
EP 06 12 1704

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			B41C
<div style="border: 1px solid black; padding: 5px;"> <p><del>The present search report has been drawn up for all claims</del></p> </div>			
Place of search		Date of completion of the search	Examiner
Munich		25 July 2007	Vogel, Thomas
<div style="display: flex; justify-content: space-between;"> <div> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p> </div> <div> <p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>.....</p> <p>&amp; : member of the same patent family, corresponding document</p> </div> </div>			

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EPO FORM 1503 03.82 (P04C01)

**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:

1-7, 11, 13



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**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

EP 06 12 1704

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: 1-7,11,13

A heat-sensitive lithographic printing plate precursor comprising on a grained and anodized aluminum support a compound which is capable of converting from a hydrophobic state to a hydrophilic state or vice versa upon exposure to heat and/or in the presence of an acid or a base, the compound being represented by the formula in claim 1 (claim 1), a method of making a lithographic printing plate using said precursor (claim 11) and a lithographic printing method using said plate precursor (claim 13).

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2. claims: 8,9,10,12,14

A compound which is capable of converting from a hydrophobic state to a hydrophilic state upon exposure to heat and which is represented by the formula in claim 8 (claim 8), a heat-sensitive printing plate precursor comprising said compound (claim 10), a method of making a lithographic printing plate using said precursor (claim 12) and a lithographic printing method using said plate precursor (claim 14).

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

EP 06 12 1704

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.

25-07-2007

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