(11) **EP 1 518 710 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **08.06.2005 Bulletin 2005/23**

(51) Int CI.7: **B41N 1/00**, B41N 3/03, B41N 1/08, B41C 1/10

- (43) Date of publication A2: 30.03.2005 Bulletin 2005/13
- (21) Application number: 04020031.3
- (22) Date of filing: 24.08.2004
- (84) Designated Contracting States:

 AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
 HU IE IT LI LU MC NL PL PT RO SE SI SK TR
 Designated Extension States:

 AL HR LT LV MK
- (30) Priority: 24.09.2003 JP 2003331342
- (71) Applicant: Fuji Photo Film Co., Ltd. Kanagawa (JP)

- (72) Inventor: Hotta, Hisashi Fuji Photo Film Co., Ltd. Haibara-gun Shizuoka (JP)
- (74) Representative: HOFFMANN EITLE Patent- und Rechtsanwälte Arabellastrasse 4 81925 München (DE)

(54) Support for lithographic printing plate and presensitized plate

(57) A support for a lithographic printing plate is composed of a metal base that has been grained and anodized then subjected to treatment with an aqueous solution containing an inorganic fluorine compound and a phosphate compound, followed or preceded by treatment with a silicate compound-containing aqueous solution, and an intermediate layer which lies on the treated metal base and contains an acid group-bearing polymeric compound. Presensitized plates composed in

part of the support, when used as on-machine development type plates, have a good on-machine developability, high sensitivity, long press life and good resistance to scumming. When used as positive or negative-working thermal plates, such presensitized plates efficiently utilize heat in image formation, have a high sensitivity and a long press life, and minimize scumming in nonimage areas.



EUROPEAN SEARCH REPORT

Application Number EP 04 02 0031

Category	Citation of document with in of relevant pass	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
Х		I PHOTO FILM CO LTD) 2-08-14)	1-3,5	B41N1/00 B41N3/03 B41N1/08 B41C1/10
X	EP 1 170 149 A (FUJ 9 January 2002 (200 * paragraphs '0012! '0023!, '0030!, '0096!; claim 1 *	- '0016!, '0022!,	1-3,5	
Α	* paragraph '0008!	4,5		
X	EP 1 266 753 A (FUJ 18 December 2002 (2 * paragraphs '0186!		1-3,5	
Α	DATABASE WPI Section Ch, Week 20 Derwent Publication Class A89, AN 2004-	s Ltd., London, GB;	1-3,5	
	XP002312070 & JP 2003 233166 A	(KONICA CORP)		TECHNICAL FIELDS SEARCHED (Int.CI.7)
	22 August 2003 (200 * abstract *			B41N B41C
Α	EP 1 251 014 A (FUJ 23 October 2002 (20 * page 14, line 15, line 31; claim 1 *	1-3,5		
A	EP 0 048 909 A (AME CORPORATION) 7 Apri * page 34, line 13	4,5		
Α	EP 1 232 878 A (FUJ 21 August 2002 (200 * paragraph '0624!	4,5		
		-/		
			- ·	
	The present search report has		1	
	Place of search	Date of completion of the search	Cn.	Examiner /ropoulou, E
	Munich	7 April 2005		 : :
X : part Y : part doc A : tecl O : nor	ATEGORY OF CITED DOCUMENTS ticularly relevant if taken alone ticularly relevant if combined with anot ument of the same category nnological background n-written disclosure rmediate document	L : document cited	curnent, but publite in the application for other reasons	lished on, or

EPO FORM 1503 03.82 (P04C01)



EUROPEAN SEARCH REPORT

Application Number EP 04 02 0031

Category	Citation of document with indication of relevant passages	n, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
A	US 4 448 647 A (GILLICH 15 May 1984 (1984-05-15 * column 10, line 7 - 1)	4,5		
				TECHNICAL FIELDS SEARCHED (Int.Cl.7)	
				SEATOTE (IIIIO)	
	The present search report has been dr	awn up for all claims	_		
Place of search Munich		Date of completion of the search 7 April 2005	·		
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background		T : theory or principl E : earlier patent do after the filing dat D : document cited i L : document cited fe	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons		



Application Number

EP 04 02 0031

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:



LACK OF UNITY OF INVENTION SHEET B

Application Number

EP 04 02 0031

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: 1-3,5

Claim 1 defines a support for a lithographic printing plate, comprising a metal base subjected to graining and anodizing, then treated with an aqueous solution containing an inorganic fluorine, a phosphate and silicate compound and an intermediate layer which lies on the treated metal base and contains an acid group-bearing polymeric compound. Claim 5 defines a presensitized plate comprising a lithographic printing plate according to claim 1.

2. claims: 4,5

Claim 4 defines a support for a lithographic printing plate comprising a metal base having a surface which satisfies the formulas mentioned in said claim 4 and an intermediate layer which lies on the metal base and contains an acid group-containing polymeric compound. Claim 5 defines a presensitized plate comprising the lithographic printing plate support of claim 4.

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

EP 04 02 0031

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.

07-04-2005

	Patent document ed in search report		Publication date		Patent family member(s)	Publication date
EP	1231074	A	14-08-2002	JP	2002229187 A	14-08-20
				EΡ	1231074 A	14-08-20
				US	2002155382 A	1 24-10-20
ΞP	1170149	Α	09-01-2002	JP	2002023385 A	
				JP	2002031887 A	
				JP	2002099093 A	
				CN	1334492 A	
				EP	1170149 A	
				US 	2002039703 A	\1 04-04-20
EΡ	1266753	Α	18-12-2002	JP	2002362055 A	
				JP	2003001960 A	
				JP	2003011535 A	
				EP	1266753 A	
				US	2003044714 A	
					1402088 <i>A</i>	12-03-20
JP	2003233166	A	22-08-2003	NONE	: 	
ΕP	1251014	Α	23-10-2002	JP	2002316486 A	29-10-20
				EP	1251014 A	
	•			US	2003084807 A	1 08-05-20
EP	0048909	Α	07-04-1982	ΑT	11156 T	15-01-19
				ΑT	11432 T	15-02-19
				ΑU	543532 B	
				AU	7566681 <i>A</i>	
				AU	543352 B	
				AU	7566781 A	
				CA	1190509 A	
				CA	1190510 A	
				DE	3168161	
				DE EP	3168507 E 0050216 A	
				EP	0030210 A	
				ĴΡ	1058280 E	
				JP	1570730 (
				JP	57089497 A	
				JP	1054439 E	
				JΡ	1568202	
				JP	57089498 A	
				ÜS	4383897 A	
				US	4448647 <i>F</i>	
				US	4399021 A	16-08-19
				US	4452674 A	05-06-19

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

EP 04 02 0031

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.

07-04-2005

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1232878	A	21-08-2002	JP	2002240455	Α	28-08-20
			JP	2002283753	Α	03-10-20
			CN	1373048	Α	09-10-20
			EP	1232878	A2	21-08-20
			US	2002160308	A1	31-10-20
US 4448647	Α	15-05-1984	AT	11156	T	15-01-19
			ΑT	11432	T	15-02-19
			ΑU	543532	B2	26-04-19
			ΑU	7566681	Α	01-04-19
			ΑU	543352	B2	18-04-19
			ΑU	7566781	Α	01-04-19
			CA	1190509	A1	16-07-19
			CA	1190510	A1	16-07-19
			DE	3168161	D1	21-02-19
			DE	3168507		07-03-19
			EΡ	0050216	A2	28-04-19
			EP	0048909	A1	07-04-19
			JP	1058280	В	11-12-19
			JP	1570730	C	25-07-19
			JP	57089497		03-06-19
			JP	1054439	В	17-11-19
			JP	1568202		10-07-19
			JР	57089498		03-06-19
			US	4383897	Α	17-05-19

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82