



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
23.05.2012 Bulletin 2012/21

(51) Int Cl.:
C22C 21/00 (2006.01) **C22F 1/04** (2006.01)
B41N 1/08 (2006.01)

(43) Date of publication A2:
30.12.2009 Bulletin 2009/53

(21) Application number: **09251641.8**

(22) Date of filing: **24.06.2009**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA RS

(72) Inventors:
• **Smith, Glenn Crosbie**
Hagley DY9 0NZ (GB)
• **Flukes, Graham Alfred**
Willenhall, West Midlands (GB)
• **Pickthall, Sarah Elizabeth**
Edgmond, Shropshire TF10 8LQ (GB)

(30) Priority: **24.06.2008 GB 0811534**

(71) Applicant: **Bridgnorth Aluminium Ltd.**
Bridgnorth
Shropshire WV15 6AU (GB)

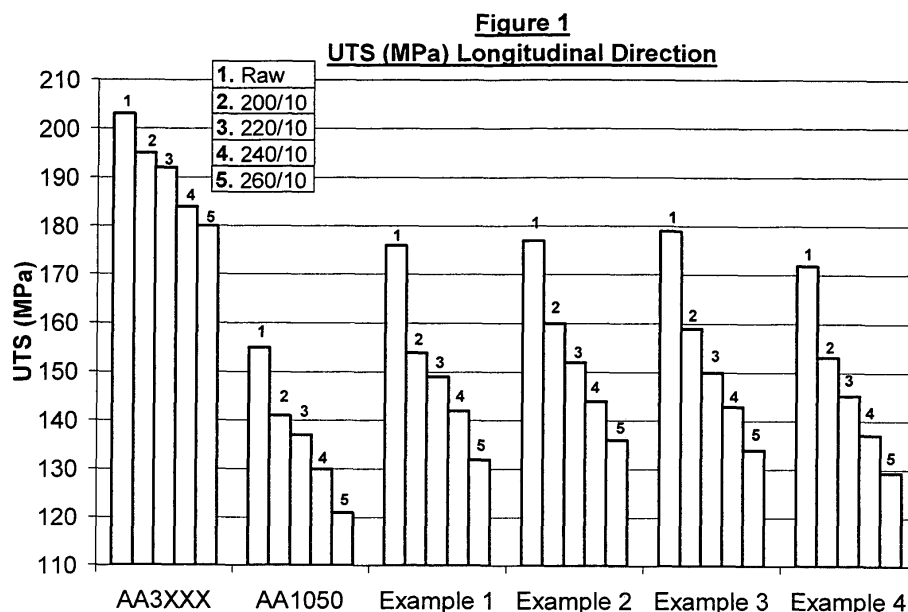
(74) Representative: **Johnstone, Helen Margaret**
Potter Clarkson LLP
Park View House
58 The Ropewalk
Nottingham
NG1 5DD (GB)

(54) **Alloy**

(57) An Al alloy suitable for processing into a lithographic sheet, the alloy having a composition in weight % of:

Fe 0.16 to 0.40
Si up to 0.25
Cu up to 0.01

Mn up to 0.05
Ti up to 0.015
Mg 0.02 to 0.10
Zn up to 0.06
unspecified other components up to 0.03 each
Al balance, wherein the minimum Al content is 99.3.





EUROPEAN SEARCH REPORT

 Application Number
 EP 09 25 1641

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP 2005 042187 A (MITSUBISHI ALUMINIUM; KODAK POLYCHROME GRAPHICS JAPA) 17 February 2005 (2005-02-17) * the whole document *	1-13	INV. C22C21/00 C22F1/04 B41N1/08
X	JP 2006 205557 A (FUJI PHOTO FILM CO LTD) 10 August 2006 (2006-08-10) * the whole document *	1-13	
X	WO 02/48415 A1 (ALCAN INT LTD [CA]; ROTTWINKEL THEODOR [DE]; WRIGHT DAVID SKINGLEY [DE]) 20 June 2002 (2002-06-20) * claims 1-36 *	1-5,8-13	
A	* pages 7, 8; table 1 * * page 1, paragraph 1 - page 6, paragraph 6 *	6,7	
X	JP 9 272935 A (KOBE STEEL LTD) 21 October 1997 (1997-10-21) * the whole document *	1-5,8-13	
A		6,7	TECHNICAL FIELDS SEARCHED (IPC)
X	JP 2005 330588 A (MITSUBISHI ALUMINIUM; KODAK POLYCHROME GRAPHICS JAPA) 2 December 2005 (2005-12-02) * the whole document *	1-9,12,13	C22C C22F B41N
A		10,11	
X	US 2002/025448 A1 (YAMAGUCHI KEITAROU [JP]) 28 February 2002 (2002-02-28) * the whole document *	1-5,8-13	
A		6,7	
X	EP 1 475 448 A1 (MITSUBISHI ALUMINIUM [JP]; KODAK POLYCHROME GRAPHICS JAPA [JP]) 10 November 2004 (2004-11-10) * claims 1-11 * * tables 2, 3 * * paragraph [0013] - paragraph [0095] *	1-8,12,13	
A		9-11	
		-/--	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 23 March 2012	Examiner Vlassi, Eleni
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 O : non-written disclosure P : intermediate document 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 & : member of the same patent family, corresponding document			

 1
 EPO FORM 1503 03.02 (P04C01)



EUROPEAN SEARCH REPORT

Application Number
EP 09 25 1641

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X A	JP 11 061364 A (SKY ALUMINIUM; FUJI PHOTO FILM CO LTD) 5 March 1999 (1999-03-05) * the whole document *	1-5,8, 12,13 6,7,9-11	
X A	CN 101 182 611 A (RUYUAN HEC GROUP CO LTD [CN] RUYUAN HEC GROUP CO LTD) 21 May 2008 (2008-05-21) * the whole document *	1-5,8, 12,13 6,7,9-11	
X A	JP 2005 002429 A (MITSUBISHI ALUMINIUM) 6 January 2005 (2005-01-06) * the whole document *	1-5,8, 12,13 6,7,9-11	
X A	JP 2008 063667 A (MITSUBISHI ALUMINIUM) 21 March 2008 (2008-03-21) * the whole document *	1-5,12, 13 6-11	
X A	US 4 435 230 A (FUJIKURA CHOZO [JP]) 6 March 1984 (1984-03-06) * claims 1-3 * * table 1 * * column 2, line 15 - column 4, line 52 *	1,2,4,8, 12,13 3,5-7, 9-11	
A	WO 2006/134542 A2 (HULETT ALUMINIUM PROPRIETARY L [ZA]; SMITH PETER CRAIG [ZA]; SHIRAN M) 21 December 2006 (2006-12-21) * claims 1-31 * * page 7, line 10 - page 16, line 6 *	1-13	
A	EP 1 176 031 A1 (AGFA GEVAERT [BE]) 30 January 2002 (2002-01-30) * claims 1-13 * * example 1 *	1-13	
The present search report has been drawn up for all claims			
1			
Place of search The Hague		Date of completion of the search 23 March 2012	
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 O : non-written disclosure P : intermediate document 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 & : member of the same patent family, corresponding document			

EPO FORM 1503 03.02 (P04C01)

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

EP 09 25 1641

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.

23-03-2012

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 2005042187	A	17-02-2005	JP 4630968 B2	09-02-2011
			JP 2005042187 A	17-02-2005
JP 2006205557	A	10-08-2006	NONE	
WO 0248415	A1	20-06-2002	AT 320513 T	15-04-2006
			AU 2214402 A	24-06-2002
			DE 60117916 T2	16-11-2006
			EP 1341942 A1	10-09-2003
			EP 1676931 A2	05-07-2006
			ES 2259311 T3	01-10-2006
			JP 4107489 B2	25-06-2008
			JP 2004515652 A	27-05-2004
			US 2004047759 A1	11-03-2004
			US 2006254680 A1	16-11-2006
			US 2011056595 A1	10-03-2011
			WO 0248415 A1	20-06-2002
JP 9272935	A	21-10-1997	JP 2778662 B2	23-07-1998
			JP 9272935 A	21-10-1997
JP 2005330588	A	02-12-2005	JP 4287414 B2	01-07-2009
			JP 2005330588 A	02-12-2005
US 2002025448	A1	28-02-2002	CN 1333136 A	30-01-2002
			JP 3882987 B2	21-02-2007
			JP 2002088434 A	27-03-2002
			US 2002025448 A1	28-02-2002
EP 1475448	A1	10-11-2004	EP 1475448 A1	10-11-2004
			US 2005019698 A1	27-01-2005
			WO 03057934 A1	17-07-2003
JP 11061364	A	05-03-1999	JP 3915944 B2	16-05-2007
			JP 11061364 A	05-03-1999
CN 101182611	A	21-05-2008	NONE	
JP 2005002429	A	06-01-2005	JP 4105042 B2	18-06-2008
			JP 2005002429 A	06-01-2005
JP 2008063667	A	21-03-2008	NONE	
US 4435230	A	06-03-1984	DE 3232810 A1	10-03-1983
			JP 1397482 C	24-08-1987
			JP 58042745 A	12-03-1983

EPO FORM P0459

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

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

EP 09 25 1641

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.

23-03-2012

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
			JP 62005080 B	03-02-1987
			US 4435230 A	06-03-1984

WO 2006134542	A2	21-12-2006	NONE	

EP 1176031	A1	30-01-2002	NONE	

EPO FORM P0459

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