

Title (en)

Method of making a lithographic printing plate.

Title (de)

Verfahren zur Herstellung einer lithographischen Druckplatte

Title (fr)

Procédé pour la fabrication d'une plaque d'impression lithographique

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Application

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Abstract (en)

A method for making a lithographic printing plate is disclosed which comprises the steps of : i) providing a lithographic printing plate precursor comprising an aluminum support with a grained and anodized surface having CIE 1976 color coordinates L* sup which is not less than 70 and a* sup and b* sup each in the range from -4 to +4; and a coating on said support which comprises an image-recording layer comprising an infrared-sensitized photopolymerizable or photocurable composition; which together form a coated support having a CIE 1976 lightness value L* nonexp which is not less than 50; ii) image-wise exposing the coating to infrared light, thereby inducing polymerization or curing of the composition at exposed areas; and forming a visible print-out image in the coating of which the lightness difference #L* is at least 5, wherein #L* is defined as L* nonexp minus L* exp , wherein L* exp is the CIE 1976 lightness value of the coated support at exposed areas; iii) removing non-exposed areas of the coating with a developer. The combination of an essentially white support, an essentially colorless or only slightly colored coating and a lightness difference between non-exposed and exposed areas of at least 5 provides a print-out image with a high contrast, which enables convenient image quality control before developing the plate.

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Citation (applicant)

- US 4997745 A 19910305 - KAWAMURA KOIUCHI [JP], et al
- US 5514521 A 19960507 - KOBAYASHI NAOMICHI [JP]
- US 5275917 A 19940104 - INAI SHI KOUJI [JP]
- EP 0611997 A1 19940824 - KYOWA HAKKO KOGYO KK [JP]
- US 5705309 A 19980106 - WEST PAUL RICHARD [US], et al
- EP 0889363 A1 19990107 - DU PONT [US]
- EP 1315998 A1 20030604 - TENG GARY GANGHUI [US]
- US 2002177074 A1 20021128 - HOSHI SATOSHI [JP], et al
- US 6576401 B2 20030610 - TENG GARY GANGHUI [US]
- EP 1495866 A2 20050112 - FUJI PHOTO FILM CO LTD [JP]
- EP 1506855 A2 20050216 - FUJI PHOTO FILM CO LTD [JP]
- EP 1516724 A1 20050323 - FUJI PHOTO FILM CO LTD [JP]
- EP 1518672 A2 20050330 - FUJI PHOTO FILM CO LTD [JP]
- EP 1520694 A2 20050406 - FUJI PHOTO FILM CO LTD [JP]
- US 3359109 A 19671219 - ROBERT HARDER JUNIOR, et al
- US 3042515 A 19620703 - EUGENE WAINER
- US 4258123 A 19810324 - NAGASHIMA AKIRA, et al
- US 4139390 A 19790213 - RAUNER FREDERICK J, et al
- US 5141839 A 19920825 - MITCHELL JAMES E [US], et al
- US 5141842 A 19920825 - MITCHELL JAMES E [US], et al
- US 4232106 A 19801104 - IWASAKI MASAYUKI, et al
- US 4425424 A 19840110 - ALTLAND HENRY W [US], et al
- US 5030548 A 19910709 - FUJIKURA SADAO [JP], et al
- US 4598036 A 19860701 - IWASAKI MASAYUKI [JP], et al
- EP 0434968 A2 19910703 - BASF AG [DE]
- WO 9635143 A1 19961107 - MINNESOTA MINING & MFG [US]
- US 2003068575 A1 20030410 - YANAKA HIROMITSU [JP]
- DD 213530 A1 19840912 - LEIPZIG TECH HOCHSCHULE [DD]
- EP 0897134 A2 19990217 - MITSUBISHI CHEM CORP [JP]
- EP 0925916 A1 19990630 - AGFA GEVAERT NV [BE]
- EP 1300241 A2 20030409 - FUJI PHOTO FILM CO LTD [JP]
- EP 1508440 A2 20050223 - FUJI PHOTO FILM CO LTD [JP]
- US 2004134365 A1 20040715 - MORI TAKAHIRO [JP]
- EP 1502736 A2 20050202 - FUJI PHOTO FILM CO LTD [JP]
- EP 1359008 A1 20031105 - AGFA GEVAERT [BE]
- US 6410205 B1 20020625 - LEICHSENRING THOMAS [DE], et al
- US 5049479 A 19910917 - ZERTANI RUDOLF [DE], et al
- EP 1079276 A1 20010228 - AGFA GEVAERT [BE]
- EP 1369232 A1 20031210 - FUJI PHOTO FILM CO LTD [JP]
- EP 1369231 A2 20031210 - FUJI PHOTO FILM CO LTD [JP]
- EP 1341040 A1 20030903 - FUJI PHOTO FILM CO LTD [JP]
- US 2003124460 A1 20030703 - MUNNELLY HEIDI M [US], et al
- EP 1241002 A2 20020918 - FUJI PHOTO FILM CO LTD [JP]

- EP 1288720 A1 20030305 - FUJI PHOTO FILM CO LTD [JP]
- EP 1500498 A2 20050126 - FUJI PHOTO FILM CO LTD [JP]
- US 6232038 B1 20010515 - TAKASAKI RYUICHIRO [JP], et al
- US 6218076 B1 20010417 - OGATA TOMONARI [JP], et al
- US 5955238 A 19990921 - YOKOYA HIROAKI [JP], et al
- US 6037098 A 20000314 - AOAI TOSHIAKI [JP], et al
- US 6010824 A 20000104 - KOMANO HIROSHI [JP], et al
- US 5629354 A 19970513 - WEST PAUL R [US], et al
- US 6027857 A 20000222 - LI MINYU [US], et al
- US 6171735 B1 20010109 - LI MINYU [US], et al
- US 6420089 B1 20020716 - BAUMANN HARALD [DE], et al
- US 4045232 A 19770830 - PARKINSON HAROLD B
- US 4981517 A 19910101 - DESANTO JR RONALD F [US], et al
- US 6140392 A 20001031 - KINGMAN KEVIN P [US], et al
- WO 0032705 A1 20000608 - FLINT INK CORP [US], et al
- R.W.G. HUNT: "MEASURING COLOUR", 1992, ELLIS HORWOOD LIMITED, article "Colorimetry, CIE 116-1995: Industrial Colour Difference Evaluation"
- N.S. ALLEN ET AL.: "PREPOLYMERS AND REACTIVE DILUENTS FOR UV AND EB CURABLE FORMULATIONS", vol. 2, 1991, article "Chemistry & Technology UV & EB formulation for coatings, inks & paints"
- K.K. DIETLIKER: "PHOTOINITIATORS FOR FREE RADICAL AND CATIONIC POLYMERISATION", vol. 3, 1991, article "Chemistry & Technology UV & EB formulation for coatings, inks & paints"
- R. RAUE: "ULLMANN'S ENCYCLOPEDIA OF INDUSTRIAL CHEMISTRY", vol. A5, 1986, WILEY-VCH, pages: 369 - 373

Cited by

EP2871057A1; WO2015067581A1; EP2550338A4; EP2839968A4; CN105612057A; CN105682925A; CN112088093A; CN112154068A; CN112188963A; US2021260864A1; US11813838B2; EP1834764A1; EP3032334A1; EP3587113A1; CN112334312A; WO2019243036A1; WO2015055409A1; EP2113381A2; US8084182B2; EP2098376A1; EP2106924A1; EP3587112A1; CN112351888A; US2023311474A1; EP1974911A1; WO2019039074A1; EP2243628A1; WO2010122042A1; US8685622B2; EP3121008A1; WO2017013060A1; EP2065211A1; WO2012054254A2; US8240943B2; US8900798B2; EP2095948A1; WO2013034474A1; US9962923B2; EP3239184A1; WO2017186556A1; EP3715140A1; WO2020200905A1; WO2019243037A1; WO2017157579A1; WO2017157572A1; WO2017157578A1; WO2017157571A1; WO2017157576A1; WO2017157575A1; WO2019219560A1; WO2019219570A1; WO2019219565A1; WO2019219577A1; WO2019219574A1

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