

Title (en)

Method of processing forehardened silver halide photographic industrial X-ray films.

Title (de)

Verfahren zur Verarbeitung von vorgehärteten photographischen industriellen Silberhalogenid-Röntgenfilmen.

Title (fr)

Méthode de traitements de films radiographiques à l'halogénure d'argent pré-durcis.

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Application

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Priority

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Abstract (en)

In accordance with this invention a method is provided of image forming by the steps of exposing a silver halide industrial X-ray photographic material and processing said material in an automatic processing machine in hardener-free developing and hardener-free fixing solutions followed by rinsing and drying with infrared drying means in the film-drying station and wherein said material comprises a support and on at least one side thereof at least one gelatino silver halide emulsion layer and at least one non-sensitive protective antistress coating which optionally comprises at least one polyoxyalkylene compound, the total amount of silver halide per square meter and per side corresponding to 6 to 20 g of silver nitrate, and that said material has been hardened with at least one vinyl sulphone compound thereby reducing the amount of water absorption of the processed film just before drying to less than 2.5 g of water per gram of coated gelatin. Moreover improved physical surface characteristics can be obtained if in addition a polyoxyalkylene compound is added to at least one of the hydrophilic layers of the photographic material and/or if during the processing of the said material in an automatic processing machine the hardener-free developer comprises as a surfactant at least one anionic alkylphenoxy and/or alkoxy polyalkyleneoxy phosphate ester, sulphate ester, alkyl carboxylic, sulfonic or phosphonic acid and/or a salt thereof.

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Citation (search report)

- [Y] US 4990439 A 19910205 - GOAN KAZUYOSHI [JP], et al
- [Y] FR 2516265 A1 19830513 - EASTMAN KODAK CO [US]
- [Y] FR 2367300 A1 19780505 - AGFA GEVAERT [BE], et al
- [YD] EP 0223883 A1 19870603 - AGFA GEVAERT NV [BE]
- [Y] GB 805827 A 19581217 - ILFORD LTD
- [Y] EP 0267019 A2 19880511 - KONISHIROKU PHOTO IND [JP]
- [Y] FR 2201486 A1 19740426 - EASTMAN KODAK CO [US]
- [Y] DATABASE WPIL Section Ch, Week 9223, Derwent Publications Ltd., London, GB; Class A89, AN 92-189520 & JP-A-4 125 626 (KONICA) 27 April 1992
- [Y] DATABASE WPIL Section Ch, Week 8925, Derwent Publications Ltd., London, GB; Class E19, AN 89182946 & JP-A-1 121 849 (FUJI PHOTO FILM) 15 May 1989
- [Y] PATENT ABSTRACTS OF JAPAN vol. 10, no. 338 (P-516)(2394) 15 November 1986 & JP-A-61 140 940 (FUJI PHOTO FILM) 28 June 1986
- [Y] PRODUCT LICENSING INDEX no. 95, March 1972, HAVANT GB pages 47 - 48 'Surface-activated rapid drying of hydrophilic layers' item 9518

Cited by

US5620836A; EP1439415A1; EP0698817A1; US6936411B2

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