

UNITED STATES PATENT OFFICE

MAX RAECK, OF DESSAU-ZIEBIGK, ANHALT, GERMANY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO AFGA ANSCO CORPORATION, OF BINGHAMTON, NEW YORK, A CORPORATION OF NEW YORK

LIGHT-SENSITIVE MATERIAL AND PROCESS FOR THE PRODUCTION OF PHOTOGRAPHIC PRINTS

No Drawing. Application filed February 24, 1928, Serial No. 256,810, and in Germany February 28, 1927.

The present invention relates to the production of photographic prints, more particularly to using photographic materials comprising as a light-sensitive substance a salt of a sulfonic acid of a 1.2-quinone of the naphthalene series.

I found that salts of sulfonic acids of a 1.2-quinone of the naphthalene series are very sensitive to light and are readily destroyed by the influence of light. According to the invention paper, or paper which is coated with a gelatin layer, glass or celluloid film, is made sensitive to light by application of a solution of a salt of a sulfonic acid of a 1.2-quinone of the naphthalene series and is exposed, for instance, under a drawing on tracing cloth and then developed with an organic compound which contains one or more amino-groups, whereby a positive picture is produced directly.

The following examples illustrate my invention:

Example 1.—A paper which has been saturated with a solution of potassium 1.2-naphtho-quinone-4-sulfonate of 2 per cent. strength and then dried, is exposed to light under a black and white drawing and then developed in a solution of aniline-hydrochloride of 1 per cent. strength. The parts protected from light appear red on a colorless ground.

Example 2.—Paper is coated with a solution of gelatin which contains potassium 1.2-naphtho-quinone-4-sulfonate. After drying and exposure to light under a black and white drawing it is developed in an aqueous solution of 1-methyl-2,4-diaminobenzene of 1 per cent. strength. The picture is in Bordeaux red.

Example 3.—A gelatin solution containing potassium 1.2-naphtho-quinone-4-sulfonate is poured upon glass. After drying and exposure to light under a black and white drawing the plate is developed by a solution of 1-amino-4-hydroxybenzene. The picture produced is violet.

Instead of potassium 1.2-naphtho-quinone-4-sulfonate there may be employed in the preceding examples salts of other sulfonic acids of a 1.2-quinone of the naphthalene series, for instance, ammonium 1.2-naphtho-qui-

none-4.6-disulfonate or sodium 1.2-naphtho-quinone-6-sulfonate.

I claim:

1. The process of making photographic prints which consists in exposing to light under a positive a support coated with a salt of a sulfonic acid of a 1.2-quinone of the naphthalene series and developing the exposed light-sensitive surface with an organic compound containing an amino group.

2. The process of making photographic prints which consists in exposing to light under a positive a support coated with a salt of a sulfonic acid of a 1.2-quinone of the naphthalene series and developing the exposed light-sensitive surface with a compound of the benzene series containing an amino group.

3. The process of making photographic prints which consists in exposing to light behind a positive a support coated with a salt of 1.2-naphthoquinone-4-sulfonic acid and developing the exposed light-sensitive surface with an organic compound containing an amino group.

4. The process of making photographic prints which consists in exposing to light behind a positive a support coated with a salt of 1.2-naphthoquinone-4-sulfonic acid and developing the exposed light-sensitive surface with a compound of the benzene series containing an amino group.

5. Light-sensitive materials comprising a support coated with a salt of a sulfonic acid of a 1.2-quinone of the naphthalene series.

6. Light-sensitive materials comprising a support coated with a salt of 1.2-naphtho-quinone-4-sulfonic acid.

In testimony whereof, I affix my signature.

MAX RAECK.