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PHOTOGRAPHIC DEVELOPERS

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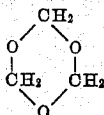
Customary high-contrast, sharp-cutoff developers such as are used for developing process film, motion picture positives, etc., have the disadvantage of deteriorating rapidly. Thus, high-contrast developers containing sodium hydroxide cannot be used after a few days, and paraformaldehyde-sodium sulphite developers deteriorate in a further short time. In accordance with the present invention, however, a high-contrast developer may be had which is remarkably durable under ordinary conditions of storage and usage. Other objects and advantages will appear from the following description.

To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described, and particularly pointed out in the claims, the following description setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but a few of the various ways in which the principle of the invention may be employed.

In accordance with the invention, a developer is made up with a silver halide developing agent, and a methylol-urea and trioxane; and sulphites, metabisulphites, potassium bromide, etc. may be also included. Dimethylol-urea,



or monomethylol-urea, $\text{O}:\text{C}(\text{NH}:\text{CH}_2\text{OH})(\text{NH}_2)$, may be used. The former for instance in an amount of 12 to 25 per cent of total solids in the developer, and the latter in greater amount, for instance, 20 to 50 per cent of total solids in the developer. And the trioxane



is employed in an amount of 10 to 50 per cent of total solids in the developer. The silver halide developing agent may be, for instance, hydroquinone, metol, catechol, chlorohydroquinone, amidol, etc.

As an example:

Water	litre	1/2
Sodium sulphite	grams	80
Dimethylol-urea	do	20
Trioxane	do	20
Potassium metabisulphite	do	2
Boric acid	do	7
Hydroquinone	do	25
Potassium bromide	do	1.5

Water to make-up to one litre.

The water is preferably warm, for instance about 50° C., and the ingredients are preferably mixed in the order given above. In similar manner, monomethylol-urea may be used, but in amount about twice that indicated for dimethylol urea. And, various silver halide developing agents

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may be used, also other sulphites, and restrainers or retarders, for example the well-known alkali bromide, iodide or chloride restrainers.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in any of the following claims or the equivalent of such be employed.

I therefore particularly point out and distinctly claim as my invention:

1. A photographic developer containing dimethylol-urea, trioxane, sodium sulphite, potassium metabisulphite, boric acid, hydroquinone, and potassium bromide.

2. A photographic developer containing dimethylol-urea, trioxane, a silver halide developing agent, a sulphite and a restrainer.

3. A photographic developer containing monomethylol-urea, trioxane, a silver halide developing agent, a sulphite and a restrainer.

4. A photographic developer containing a methylol-urea from the group consisting of dimethylol-urea and monomethylol-urea, trioxane, a silver halide developing agent, and a sulphite.

5. A photographic developer containing dimethylol-urea, trioxane, and a silver halide developing agent.

6. A photographic developer containing monomethylol-urea, trioxane, and a silver halide developing agent.

7. A photographic developer containing a methylol-urea from the group consisting of dimethylol-urea and monomethylol-urea, trioxane, and a silver halide developing agent.

8. In preparing photographic images, developing a latent silver halide image by an aqueous solution containing dimethylol-urea, trioxane, and a silver halide developing agent.

9. In preparing photographic images, developing a latent silver halide image by an aqueous solution containing monomethylol urea, trioxane, and a silver halide developing agent.

10. In preparing photographic images, developing a latent silver halide image by an aqueous solution containing a methylol-urea from the group consisting of dimethylol-urea and monomethylol-urea, trioxane, and a silver halide developing agent.

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