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SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



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A SCIENCE SERVICE PUBLICATION

Kodak reports to laboratories on:

a reagent for determining α -keto acids in blood and urine . . . a palm-sized movie maker in a thin-skinned box . . . filters to match your color film to your photomicrographic light source

Clarion call from Stoke Poges

Far from the madding crowd's ignoble strife and to the eternal boredom of sophomores, a man named Thomas Gray published in 1751 some thoughts about Life inspired by the country churchyard of Stoke Poges in Buckinghamshire. From the same town, exactly 200 years later, two other individuals whose thoughts about Life were more along the line of what part α -keto acids might play in it, sent to the editor of *The Biochemical Journal* (52,38) a paper in which they introduced 1,2-diamino-4-nitrobenzene as a reagent for these acids, proclaiming it more specific than the previous favorite, 2,4-dinitrophenylhydrazine, because it forms stable nitroquinoxalins which may be separated by paper chromatography.

Actually this new reagent has been slumbering peacefully in our catalog for the past 16 years ever since we began making it as an intermediate toward a benzimidazole. A change of name in the interim toward the *Chemical Abstracts* form, 4-Nitro-o-phenylenediamine (Eastman 4323), has made the grave a little harder to find. Now the clarion call from Stoke Poges, reinforced by an abstract we offer of a paper in *The Analyst* for August '55 on the use of the reagent in detecting and determining α -keto acids in blood and urine, brings life again to the old amine.

Your order for 25 grams of Eastman 4323 at \$2.50 and a note asking for the abstract is all it takes to try this new reagent. It's one of some 3500 Eastman Organic Chemicals we stock. Distillation Products Industries, Eastman Organic Chemicals Department, Rochester 3, N. Y. (Division of Eastman Kodak Company).

A glossing over

Go down to your Kodak dealer and look at the new *Cine-Kodak Medalion 8 Camera*. If the salesman is having such an unlucky day that he fails to persuade you to part with

\$144.50 for this palm-sized movie maker that you can load with a magazine in three seconds and be ready to shoot—at least look at the carton the camera comes in. Possibly of more interest to you is the substance (just as dearly beloved a product of ours as the exquisite little machine within) that constitutes the outer skin over the printing on the box. This *Half-Second Butyrate* has been known to retain its effectiveness in films as thin as .0001 inch. "Ordinary" lacquers give little appreciable gloss when applied that thin.

Persons whose minds dwell more on putting the glossiest, toughest gloss on a surface with the least coating material than they dwell on recording the coming summer's pleasant moments are urged to apply for information about Half-Second Butyrate to Eastman Chemical Products, Inc., Kingsport, Tenn. (Subsidiary of Eastman Kodak Company).

What the brain discounts

Color perception is something personal and indescribable that goes on inside your head. A ripe tomato, a lump of carnotite, or the eyes of a flaxen-haired girl look just as meetly and respectively red, yellow, or blue whether seen by candlelight or under a cold north sky. Between the flame and the sky there is a vast difference in the constitution of the light that these things reflect into the eye of the beholder, yet his brain discounts the physical difference and sets all to rights.

Now just because you happen to find yourself past the middle of the sixth decade of the twentieth century, you expect to feel these and all other possible color-feelings through the agency of varying amounts of three factory-standardized dyes on a piece of film. And, marvel to tell, you can come pretty close.

It's just that in the manufacture of a reversal-type color film, a commitment must be made as to light source. If the light source used differs from the one assumed, the physical parameters (they're the only

kind available) must be manipulated to meet the psychophysical necessities. The manipulation can be done with dyed gelatin filters placed somewhere along the line. Here, for example, are our recommendations for some light sources common in photomicrography:

Light source	*Correction filters for		
	Kodak Ektachrome Film, Type B (sheet only)	Kodak Ektachrome Film, Type F	Kodachrome Professional Film, Type A
6-v ribbon or coil filament	82A	82A and 82C	82C
300 to 750-w coil filament	match!	82 and 82C	82A
zirconium arc	2B	82, 82C, and 2B	82A and 2B
carbon arc (4.5 amp)	81D and 2B	82 and 2B	81C and 2B

As for the choice to make in 35mm, look at it this way: If you seek comfort in knowing that your color film is capable of the highest resolving power and acutance that the market currently affords, pick the new *Kodachrome Professional Film, Type A*. Pick *Kodak Ektachrome Film, Type F* if you want the results at once.

Still another choice might have to be made when the only all-night drug store in the neighborhood has no other 35mm color material than *Kodachrome Film, Type F*. This gives just as good definition as the *Kodachrome Professional*, but, like *Type F Ektachrome*, is balanced for the amateur's flash bulbs and therefore requires the same correction with photomicrographic light sources. The filtering cuts the speed down somewhat lower than that of the other two 35mm choices.

*"82," "82A," "82C," "81C," and "81D" are all Kodak Light Balancing Filters; "2B" is a Kodak Wratten Filter, which absorbs ultraviolet. The Kodak dealer can fix you up. If you want the filters in 33-mm very thin glass mounts for insertion in the filter receptacle below the substage diaphragm, he'll probably have to write in to us. He won't mind at all, particularly if you have accustomed him to minister to your needs.

Prices include Federal Tax where applicable and are subject to change without notice.

This is one of a series of reports on the many products and services with which the Eastman Kodak Company and its divisions are . . . serving laboratories everywhere

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