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SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Uakari Sets Record

See Page 166

A SCIENCE SERVICE PUBLICATION

Kodak reports on:

the parts-per-billion business . . . paste, beautiful paste . . . a water-based lacquer

Spectroscopy in electronics

We wish we could inspire several dozen more persons to enter the craft of emission spectrography. They would become customers for *Kodak Spectrum Analysis Plates and Films* as well as occupants of a secure place in technical society, one of waxing importance.

To convince that the importance indeed waxes we could send copies of a disquisition written by one of our dealers, a gent willing to undertake some deep thinking and digging out of useful information in hope of the favor of an order.

Think of the old days, he suggests, when electronics meant radio and the man at the end of the radio assembly line was given plenty of adjustable resistors, capacitors, and coils on the chassis to adjust in compensation for the unpredictable characteristics of the vacuum tubes. Electronics isn't that way any more, he implies. Today electronics is supposed to assume that its solid-state devices and the cathodes of its vacuum tubes will behave predictably within very narrow limits.

And what sets these limits?

Among other things, the presence or absence of certain chemical elements in the range of parts per billion.

How determined?

By emission spectrography.

Is this easy?

Not particularly.

What's one way to start surveying the techniques?

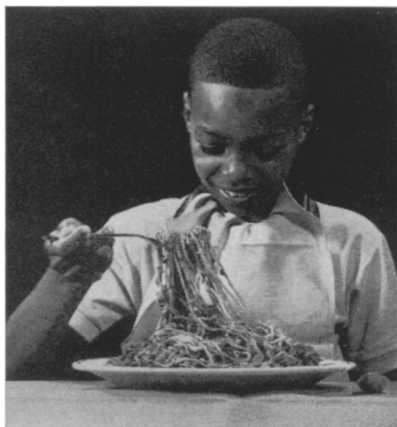
Writing for a copy of "Spectroscopy in Electronics" to Eastman Kodak Company, Special Sensitized Products Division, Rochester 4, N. Y.

Amylose and culture

Spaghetti and macaroni are basic.

The idea of making wheat flour up into a paste and drying it for future use must have come very early. Enter esthetics. The human spirit must be nourished along with the human body. For reasons apparently unrelated to biological metabolism, the paste must be dried in certain shapes, and the integrity of these shapes must be preserved right to the pearly portal of the alimentary tract. This principle is ancient: the ancient Romans ate spa-

ghetti with cheese; the ancient Japanese ate macaroni pressed from a paste of cooked rice.



When spaghetti or macaroni is cooked for too long or allowed to stand cooked, the human spirit is offended. The morsels of *pasta* revert to a sticky paste, millenia of cultural advance undone because amylose has gone into solution and then has loosely hydrogen-bonded itself into a net of slime. But for this unfortunate tendency, the world's food supply would be less dependent on specialized durum wheats. Without them, the spaghetti and macaroni would get even stickier even faster.

The problem now appears to be as soluble as the amylose itself.

First fruits of the victory can already be tasted. Try any of the up-to-date dehydrated potato-flake brands. See how the dish instantly prepared from it compares with freshly and expertly cooked home-whipped potato.

Whatever the future holds for spaghetti and macaroni, the reason the instant-potato thing works out so well is that the processors add a very small percentage of pure monoglyceride. It complexes the dissolved amylose so securely that even the familiar iodine-blue test can scarcely find it.

These Myverol Distilled Monoglycerides we prepare by glycerolysis of familiar vegetable and animal food fats. They are officially recognized as safe. Investigators who would like samples of them with which to try remedying stickiness in any starchy foods are invited to write Distillation Products Industries, Rochester 3, N. Y. (Division of Eastman Kodak Company).

Creamed butyrate

In this nation of do-it-yourselfers and of housewives capable of taking the bit in their own teeth when occasion

demands, do you think there would be a market for a cream that can be spread over bare wood with cheese-cloth to deposit in seconds a surface chemically and physically identical to a coat of highest quality lacquer?

We have made such a cream—a stable, freeze-and-thaw-resistant water emulsion of the same kind of cellulose acetate butyrate on which the best grades of conventional lacquers are based.

The cream eliminates separate fillers, sealers and wash coats, long drying periods, excessive sanding operations, and spraying equipment. With one, two, or three coats a range of effects can be produced from a flat "natural" surface to a rich, semi-glossy, "rubbed" surface. The fast film formation permits application of successive coats within minutes and eliminates the problem of surface imperfections from dust in the air. The successive coats do not soften or attack those previously applied. Instead of sanding and polishing of the dried film, gentle rubbing as the film forms fills the irregularities in the wood and smooths out the top of the lacquer. Though water-based, the cream does not raise grain as one might expect. After drying, the film has good resistance to water. It adheres well to the wood, seals it well, prevents penetration of subsequently applied conventional finishes (if they are desired) but holds them tenaciously.

The product itself is almost water-white, with the color stability to sunlight for which all cellulose acetate butyrate coatings have been esteemed. It neither darkens wood nor is itself darkened with the passage of time.

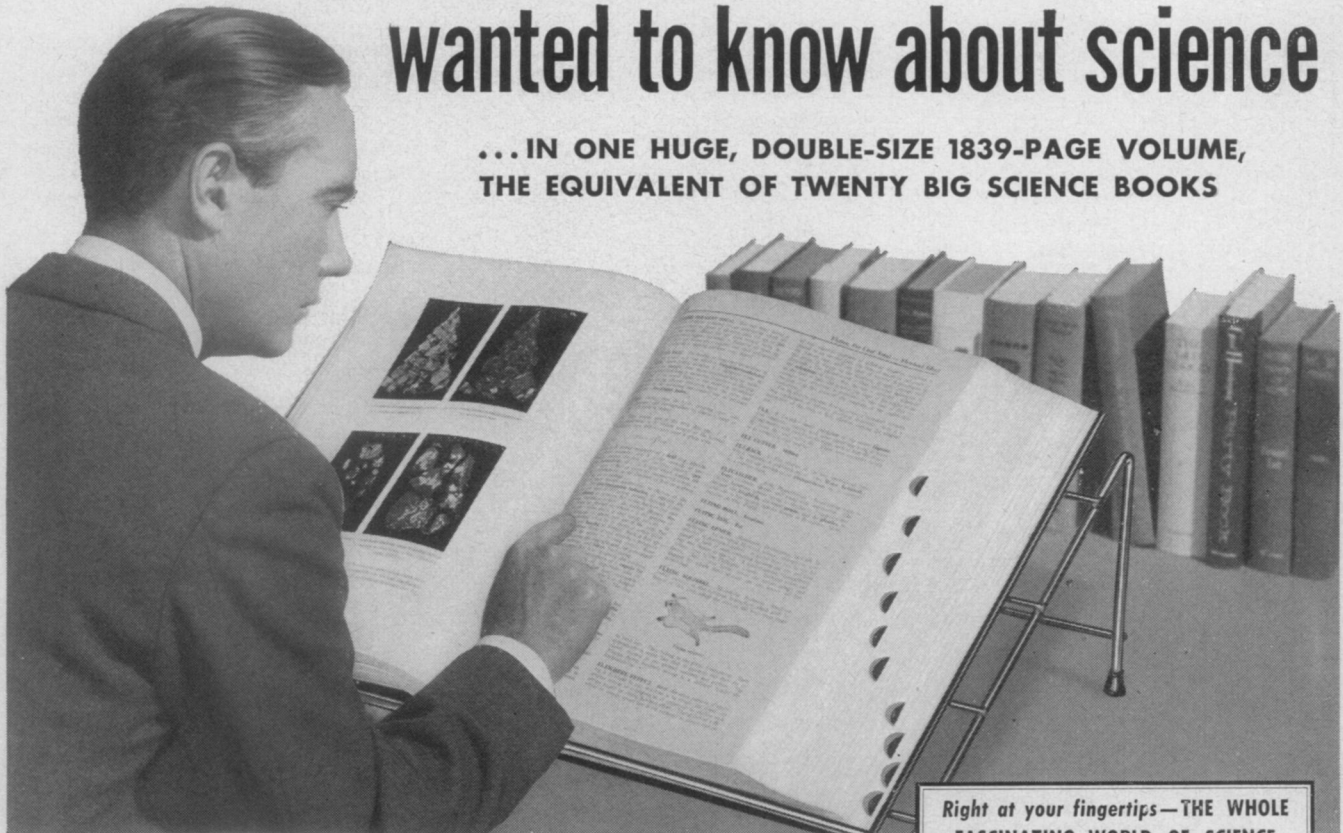
All these interesting properties we have demonstrated to our own satisfaction. The intricacies of marketing such a product through paint stores, supermarkets, five-and-dimes, or similarly formidable retail channels fill us with dismay. Therefore we thought we would here ask around what companies are interested in trying to make hay with this lovely development. (We ourselves incline to confine our consumer marketing to the photographic kind of film and cameras, projectors, and associated merchandise.) If indeed there are any such companies, Eastman Chemical Products Inc., Kingsport, Tenn. (Subsidiary of Eastman Kodak Company) will tell them all about emulsified butyrate.

This is another advertisement where Eastman Kodak Company probes at random for mutual interests and occasionally a little revenue from those whose work has something to do with science

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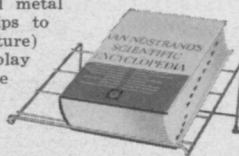
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