

1926, Handbuch der biol. Arbeitsmethoden 5: 2,2 Halfte. - Bauer, H., 1932, Zeits.f.Zellf.u.mikr.Anat. 15. - The receipts are to found in the last edition of Lee's Vademeum.) Slides are prepared by the aceto-carmine method to the stage of detached cover glasses; or slides already mounted in euparal can be soaked in 95% alcohol till the cover glasses detach. The slides are then transferred through 70% alcohol and distilled water into chrom-formol for postfixation (3 parts of 1% chromic acid and 1 part of formalin); duration 10-20 hours (overnight). Thereafter the slides are washed for 10 minutes in running water and, after transfer through distilled water and cold normal H Cl solution, hydrolyzed for 30-40 minutes in normal H Cl warmed to 60° C. on a water bath. After hydrolysis they are transferred through cold normal H Cl and distilled water into the fuchsin-sulphurous acid for 1-3 hours. After the staining the slides are washed in a large jar with tap water, moving them backward and forward several times (washing in SO₂-water is not necessary); the side of the slide carrying the objects should always be turned in the direction of the movement. Then they are transferred through distilled water and 70% alcohol into 95% alcohol. There they should remain until the red color in the albumen layer, caused by the decomposition of the fuchsin-sulphurous acid, is completely removed. Then the slides are mounted in euparal, or, through absolute alcohol and xylol, in Canada balsam. Only the chromatic structures (containing thymus nucleic acid) are stained; the staining is not quite as intense as that by aceto-carmine and does not seem any sharper or less diffuse in the demonstration of the banding. During the postfixation the chromosomes, due to shrinkage, become thinner.

These methods are applicable also to ganglia, ovaries and testes.

Lawrence, Elizabeth Gay (Carnegie Institution of Washington, Baltimore, Md.) Note on the use of dioxan in making permanent aceto-carmine preparations.

At the suggestion of Mr. C. H. Miller of this laboratory, dioxan has been tested as a medium to replace alcohol and xylol in making permanent

smears. Only preliminary tests have been made so no detailed method has yet been worked out. The general procedure, however, seems simple and the preliminary results very satisfactory.

Cover slips are soaked off in dioxan, then the material is rinsed in dioxan for a few seconds and mounted directly in balsam. Dioxan is relatively inexpensive. It may be procured from the Carbide & Carbon Chemicals Corporation, Carbide & Carbon Building, 30 E. 42nd Street, New York City, and presumably from Grüber in Germany. Its use has been described in the following papers:

"The Use of Dioxan in the Embedding of Microscopic Objects," by Heinz Graupner and Arnold Weissberger, Zool. Instit. & Chem. Lab. of the Univ. of Leipzig; Zool. Anzeiger, Bd. 96:204-206, 1931.

"The Use of Solutions in Dioxan as Fixatives for Frozen Sections", by Heinz Graupner and Arnold Weissberger; Zool. Anzeiger, Bd. 102:39-44, 4 abb., 1933.