stein,[1] so far as we know no stereoisomer of the all-trans compounds has hitherto been prepared in the case $n > 3$.

In a related field, that of the natural polyenes, the C_{40}-carotenoids, methods have been used in some laboratories[2] for the preparation of stereoisomers, *viz.*, reversible isomerization by refluxing solutions, by iodine or HCl catalysis, and by melting crystals. Irradiation can also be effective. As the adsorption affinity of stereoisomers varies with the configuration, they can be separated by chromatographic analysis.

We have now found that the methods mentioned are applicable to the diphenylpolyenes, in particular diphenyloctatetraene, and that the stereoisomers can be separated by developing the chromatogram with benzene-petroleum ether mixtures on calcium hydroxide. The reversibility of the trans-cis shift becomes manifest by spontaneous reisomerization, each of the separated isomers yielding a mixture in which the all-trans compound prevails. So far two new partially cis-isomers of diphenyloctatetraene have been observed below the zone of the starting material. They are followed by several minor zones which are under investigation. Since the adsorbates mentioned are almost colorless, the developing of the chromatogram has been followed by their fluorescence in ultraviolet light.

We expect to study other synthetic polyenes by the methods indicated.

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A SIMPLE MEANS OF RETAINING OIL BETWEEN SLIDE AND CONDENSER

THE condensers of most research microscopes are optically designed for homogeneous immersion against the lower surface of the slide. If the air gap is left open, only a fraction of the numerical aperture of the immersion objective is utilized.

Unfortunately, many condensers are so constructed that when a slide of the usual thickness is used, the gap between its lower surface and the top lens of the focused condenser is about 1 mm. Cedar oil does not possess sufficient surface tension to hold it in place in a gap this large. It soon runs to one side, and is, in general, so troublesome that most cytologists do without it except for particular critical figures.

This difficulty can be overcome by filling most of the gap with glass, leaving only thin spaces to be filled with oil. One obtains a piece of glass of the proper thickness (I used a thin slide), and cuts a piece which will a little more than cover the top lens of the condenser. One puts a drop of oil on this glass insert and lowers it onto the condenser. One lowers the condenser slightly, then puts a drop of oil on the under surface of the slide and places the slide on the stage. One raises the condenser back into focus, and optical contact is thereby established. Since the glass is of the same refractive index as the oil, it is as if the gap were filled entirely with oil. If the glass insert is not too thick, there will be no difficulty in focusing. If it is not too thin, there will be no tendency for the oil to run out. Several different inserts may be needed, for use with slides of various thickness. One can conveniently keep the condenser immersed during an entire working day. Depending on the size of the hole in the stage, a greater or lesser area of the slide can be searched without smearing. Then one must pause, wipe the oil off the under surface of the slide, put on a fresh drop in the proper place, and start again.

This method is so simple that it has probably been used before. However, it newly occurred to the author, and was new to several cytologists to whom it was mentioned.

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