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Brief History
About 10 years ago, the first phase microscope to be manufactured commercially in this country was completed in time for exhibit at the 1944 AAAS Meeting in Cleveland. The possibilities of this new instrument were readily appreciated but the continuing high cost of the equipment (about $550 for accessories minus microscope) prevented really widespread adoption. Then in 1953, at the AAAS Meeting in Boston, UNITRON introduced a new line of phase microscopes ranging in price from $265 for a research model down to as low as $99 for a student model. Every laboratory could now afford to use the powerful methods of phase microscopy and in the words of Prof. Corrington “for the first time this equipment, the most important development in light microscopy since oil immersion objectives, (was even) within the reach of the amateur, the high school, and the college freshman laboratory.” Now, UNITRON completes its line of phase microscopes with a Binocular Research Phase model which sells for the unbelievably low price of $490.

Unique Features of UNITRON Phase Microscope
The phase microscope permits the examination of thin, transparent specimens whose structural details differ so slightly in thickness, absorption, and refractive index from their surrounding medium, that they are practically invisible under the ordinary, bright-field microscope. The phase microscope introduces contrast by means of the optical system rather than by chemical staining so that, for example, zoological specimens may be examined in an unstained, living state. UNITRON Phase Microscopes may be used for ordinary microscopy as well and, most important, permit continuous transition from bright field to phase through intermediate types of contrast. Another unique feature of the UNITRON models is the simplicity of operation—there is no special technique to be learned, no focusing telescope, and no need to align diaphragms. By virtue of the optical design, only the simplest of light sources is required and highest resolving power is achieved. Each model is available in a choice among four contrasts.

A Distinguished List
We are rather proud that so many distinguished universities, research organizations, and laboratories in all parts of the country have ordered (and in many cases reordered) UNITRON Phase Microscopes in the brief period since their introduction. These include Harvard, Cornell, M.I.T., Bowdoin, Bates, Temple, Rensselaer Polytechnic, Alabama Polytechnic, Kansas State, Brooklyn, B.U., Tufts, the Universities of Michigan, Illinois, Arkansas, Nebraska, Buffalo, Miami, Missouri, Houston, Tennessee, Tampa, the Sterling-Winthrop Research Institute, Parke Davis and Co., Rohm and Haas Co., the Detroit Institute of Cancer Research, the Brooklyn Hospital, the Presbyterian Hospital of Chicago, the Kentucky Children’s Hospital, the U. S. Army, the U. S. Navy, etc. The departments requisitioning these instruments range from A to Z (Anatomy to Zoology) and include physiology, entomology, bacteriology, medicine, ophthalmology, botany, textiles, industrial health, and the all-inclusive “research”. UNITRON Phase models have been gradually replacing old-fashioned, ordinary, bright-field microscopes and we expect to win many new friends with the new Binocular Phase Model.

Summary of Equipment
The UNITRON Binocular Research Microscope, Model BMPE, has a large, heavy stand with binocular head as well as monocular tube with graduated drawtube; built-in, graduated mechanical stage; coarse focusing; fine focusing calibrated at microns; substage phase condenser adjustable in height by rack and pinion; and plano-concave mirror. The instrument is furnished with three sets of paired eyepieces: 5X, 10X, and periplan 15X and four objectives: 4X, 10X, 40X, and 100X oil immersion. Model BMPE is priced at only $490 complete with fitted hardwood cabinet. The equivalent monocular research phase model which has already been adopted as the basic instrument in many laboratories is only $265. For those who work exclusively with specimens which present no problem in visibility, we have an ordinary binocular research model for only $399 and an equivalent monocular model for only $198.

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Skepticism is a healthy scientific attitude and perhaps you feel that our prices are really too low to permit the performance and precision which we claim for our instruments. We, therefore, urge you to try one of these instruments in your own laboratory for 10 days at absolutely no cost or obligation. Let the microscope prove its value to you before you decide to purchase.

Microscope catalog available
The UNITRON Phase models are members of a distinguished and complete line of microscopes which includes laboratory, stereoscopic, metallurgical, photographic, and student models. All of these instruments are described, illustrated, and priced in the colorful UNITRON Microscope Catalog which is yours for the asking. Whether or not you are currently in the market for microscopes, why not write for your copy and learn more about these remarkable instruments which are playing an increasingly important role in research and education today.

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AAAS SYMPOSIUM VOLUME

Sex in Microorganisms

Editorial Committee: D. H. WENRICH, University of Pennsylvania, Chairman
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The genetic, physiological, and morphological evidence for "sex" in the principal groups of microorganisms—viruses, bacteria, fungi, unicellular algae, and protozoa—is presented by a group of experts in the field.


R. Patrick of the Academy of Natural Sciences, Philadelph, describes syngamy in diatoms; R. A. Lewin of the Maritime Regional Laboratory, Halifax, the sexuality of other unicellular algae, especially the flagellates.

In two chapters D. H. Wenrich covers sexual phenomena in some of the protozoa and discusses the origin and evolution of sex, based primarily on the protozoa, but including material about all of the microorganisms. D. L. Nanney of Michigan summarizes mating-type phenomena in Paramecium aurelia and some of the recent mating-type work from Sonneborn's laboratory. C. B. Metz of Florida State compares mating-type substances in Paramecium and other ciliates with those found in Metazoa. Extensive chapter bibliographies are included.

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