

9 MARCH 1962

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Bilirubin is a breakdown product of hemoglobin whose presence in the urine is frequently the earliest sign of infectious hepatitis and other severe liver disorders. Basing their approach on this knowledge, Miles-Ames scientists have developed ICTOTEST®-a quick, simple test that is extremely valuable in detecting diseases of the liver. ICTOTEST consists of a standardized diazo tablet containing stabilized p-nitrobenzene diazonium p-toluene sulfonate ("bilazo") and an absorbent mat composed of asbestos and cellulose fibers. When 5 drops of urine containing bilirubin are placed on the asbestos-cellulose mat, its absorbent qualities cause the bilirubin to remain on the outer surface. The tablet is then placed on the mat and 2 drops of water are flowed over the tablet's surface. This allows a certain amount of reactive ingredients of the slightly effervescent tablet to dissolve and to wash onto the surface of the mat. Within 30 seconds a chemical coupling of the bilirubin with p-nitrobenzene diazonium p-toluene sulfonate occurs to form a blue or purple color. An indication of the efficiency of ICTOTEST can be gained from the fact that it has a sensitivity ranging between 0.1 mg. and 0.05 mg. of bilirubin per 100 ml. of urine which coincides with the lower limit of pathologic concentration.



Competent scientists seeking the opportunity to undertake original work in an environment that offers maximum freedom to pursue fundamental ideas are invited to consider these professional staff openings:

RESEARCH CHEMIST—Will conduct independent chemical research directed toward the identification, analysis, chemical and physical characterization, purification, and modification of fermentation products. Must possess a Ph.D. in organic chemistry with minors in analytical chemistry and a biological science. Several years' industrial experience in natural products is prerequisite.

RESEARCH CHEMIST—Will have principal responsibility of applying knowledge of chemistry in defining research objectives and programs and engage in basic and applied research. Must have Ph.D. in chemistry and several years' experience in organic synthesis, polymers, resins and/or plasticizers.

RESEARCH CHEMIST—Responsibilities will center on synthetic organic chemistry studies to provide new compounds of potential therapeutic interest. Position requires Ph.D. in organic chemistry. Industrial synthetic organic chemistry experience will prove advantageous.

RESEARCH BIOCHEMIST—Will organize and conduct a research program in protein chemistry, enzyme chemistry, metabolic biochemistry, analytical biochemistry or physical biochemistry. Must possess Ph.D. in, biochemistry, microbiology, or biology. Hospital or pharmaceutical laboratory experience is desirable.

RESEARCH BIOCHEMIST—Major activity will be to carry out research directed toward reducing current or new clinical chemical diagnostic procedures to product forms, e.g.: sticks, tablets, solutions or powders.

Should hold Ph.D. in biochemistry with organic chemistry background. Industrial or post-doctoral experience in biochemical or organic research desirable but not essential.

ASSISTANT RESEARCH PHARMACOLOGIST—To conduct studies in screening new drugs and assist in complete pharmacological evaluation. Must have B.S. in pre med with some graduate work in physiology or pharmacology. Experience in screening drugs will be helpful.

ASSISTANT RESEARCH PHARMACIST—Major activities will be in the field of pharmaceutical product development and will include the preparation of pharmaceutical dosage forms based on basic concepts from the Product Development Committee. Must have a recent B.S. in pharmacy and some product development or manufacturing experience.

ASSISTANT RESEARCH CHEMIST – Principal responsibilities will involve analyzing active constituents of new pharmaceutical products during development stages and assist in working out assay procedures to facilitate studying new formulations under accelerated aging conditions. Must possess B.S. in chemistry or pharmacy. Industrial experience in a control laboratory of pharmaceutical or chemical firm is desirable.

ASSISTANT RESEARCH BIOCHEMIST—To carry out clinical chemical investigations in connection with laboratory evaluation of new drugs. B.S. in chemistry or biology plus training as a medical technologist is prerequisite: Previous hospital or industry chemical experience is highly desirable.



ICTOTEST has proven itself to be a quick, simple, and accurate test for detecting diseases of the liver.

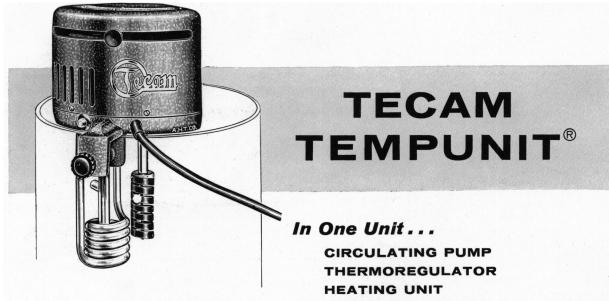
ICTOTEST is another example of how creative research at Miles-Ames is being translated into major pharmaceutical advances. Now occupying a new Research Center, The Miles-Ames Professional Staff is expanding its research activities in Biology, Biochemistry, Chemistry, Enzymology, Microbiology, Immunology, Pharmacology and Physiology. The continuing goal of these investigations is the development of new and more effective pharmaceutical products.

Inquiries may be directed in complete confidence to: **Dr. R. A. McCracken**, Coordinator of Management Recruitment (Personal discussions can be arranged at your convenience, including Saturdays, in Elkhart, Indiana.)

MILES LABORATORIES, INC. and AMES COMPANY, INC. 1127 MYRTLE STREET, ELKHART, INDIANA

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STIRRER

Controls temperature constant to $\pm 0.05^{\circ}$ C

A self-contained unit incorporating all components required for maintaining open water baths at temperatures up to approximately 90°C, and for circulating water to external apparatus at a rate of $1\frac{1}{4}$ quarts per minute at $1\frac{1}{2}$ ft. head.

The unique indicating thermoregulator system, with micro-switch for control of heater—pneumatically actuated by durable rubber bellows—has the precision of high-sensitivity electrical contact methods, but with greater dependability and longer life.

In use, it is necessary only to set the control pointer A at any desired temperature from slightly above ambient* to approx. 90°C.

The second pointer B continuously indicates bath temperature.

Temperature is attained and maintained constant within $\pm 0.05^{\circ}$ C in a tank or glass vessel without insulation.

Control housing contains stirring motor, thermoregulator with 4-inch temperature indicator dial graduated from 15 to 95°C and pilot lamp, and has cast-on clamp for attachment to vessels with wall thickness up to $1\frac{1}{4}$ inches. The helical, bimetallic sensing element, stirrer, aspirator tube and 1000-watt tubular immersion heater are integrally attached beneath the housing. Heater is wound in a coil which encircles the six-blade propeller of stirrer.

Stirring motor, 1/20 h.p., is fan cooled, induction type, self-lubricating for continuous use. For proper operation, bath must be filled to within 2 inches of rim. Switches off automatically if liquid level falls.

*Requires a cooling coil for control near or below room temperature.

For more detailed description, see p. 1022 of our 1961 catalog



VINE STREET AT 3RD . P. O. BOX 779 . PHILADELPHIA 5. PA., U.S.A.

IMMEDIATE SHIPMENT FROM OUR STOCK



Showing temperature dial on top of unit, with control pointer A and bath temperature indicator B.