

FOR EXPERIMENTS TO 15°K IN...

- Spectroscopy
- X-ray diffraction
- Hall effects
- Field-ion microscopy
- Semiconductor measurements
- Magnetic susceptibility
- EPR, ESR, NMR

roscopy • Lasers

• Low noise receivers

... CRYO-TIP^{⁽¹⁾} is the ideal refrigeration source. Surprisingly compact (only 10 inches high and weighing less than four pounds) CRYO-TIP is easy to handle — operates in any orientation. Interchangeable, inexpensive vacuum shrouds are available for varying applications.

Utilizing the Joule-Thomson open-cycle principle, CRYO-TIP refrigerators provide temperatures from 15°K to 200°K by simply varying gas pressures. Temperature controls can be as precise as ± 0.1 °K for extended periods of time.

CRYO-TIP operates on economical nitrogen and hydrogen cylinder gas . . . eliminates the need for liquid helium. Standard units produce up to four watts refrigeration.

CRYO-TIP refrigerators are designed for maximum reliability, safety, and ease of use. This proved performance can work for you. Write or phone for full technical details . . . today.

Air Products and Chemicals

Allentown, Pennsylvania ADVANCED PRODUCTS DEPARTMENT

Pennsylvania) expressed the opinion that a hospital should be recognizably different from all other types of structures and illustrated some of his ideas by pointing out characteristics of buildings being constructed at the Salk Institute at San Diego, California, and in Karachi, Pakistan.

In pointing out that one must "distinguish the inevitable from the circumstantial," Kahn could well have been speaking of what must be done in the field of medical care, as Osler Peterson (Harvard) pointed out the alternative courses which this country may follow with regard to who will be treating the patients and who will be paying the bills for medical care and medical education in the year 2000.

In summarizing what he believes will be the relation of biology, medicine, and society in the year 2000, Robert Davies described several genetic and eugenic experiments which are now being carried out in subhuman species. Two examples of such experiments are those dealing with the viability of bull sperm, which has been kept in the frozen state for years, and the rapid establishment of good stock in remote regions. The latter experiments involved air transportation of rabbits, into which fertilized ova of a highly desirable strain of sheep had been transplanted. On arrival, the fertilized sheep ova were then transplanted into sheep of a less desirable strain, thereby establishing, in a short time, a flock of sheep with highly desirable characteristics.

The consensus was that the conference served the purpose for which it was organized, that is, to focus attention upon and discuss the problems in medicine which might be present at the beginning of the 21st century because of the thoughts and actions in 1964 of physicians and those responsible for the training of physicians.

STELLA Y. BOTELHO Department of Physiology,

Division of Graduate Medicine, University of Pennsylvania Medical School, Philadelphia

Forthcoming Events

March

9-10. Arms Control, first West Coast conf., Los Angeles, Calif. (R. D. DeLauer, TRW Space Technology Laboratories, Redondo Beach, Calif.)

9-11. Wildlife Management Inst., Las Vegas, Nev. (C. R. Gutermuth, 709 Wire Bldg., Washington, D.C.)

SCIENCE, VOL. 147

10-12. Particle Accelerator, conf., Washington, D.C. (R. S. Livingston, Oak Ridge Natl. Laboratory, P.O. Box X, Oak Ridge, Tenn.)

13. Experimental Basis for the Current Management of **Portal Hypertension**, Philadelphia, Pa. (B. Sigel, Woman's Medical College of Pennsylvania, 3300 Henry Ave., Philadelphia 19129)

13-18. Proctology, 17th annual teaching seminar, New Orleans, La. (A. J. Cantor, 147-41 Stanford Ave., Flushing, L.I., N.Y. 11355)

14-16. Society for the Study of **Development and Growth**, southeastern regional, Univ. of Georgia, Athens. (D. T. Lindsay, Dept. of Zoology, Univ. of Georgia, Athens 30601)

15-17. Plant Protection, 2nd intern. conf., Naples, Italy. (Intern. Anti-Parasitic Centre, Via Barberini, 86, Rome, Italy)

15-17. Solar Energy Soc., intern. symp., Phoenix, Ariz. (SES, Arizona State Univ., Tempe 85281)

17-19. Instrumentation in the Iron and Steel Industry, 15th natl. conf., Pittsburgh, Pa. (R. P. Trauterman, Allegheny-Ludlum Steel Corp. Research Center, Alabama Ave., Backenridge, Pa.)

17-20. Medical Schools and Teaching Hospitals: Curriculum, Programming and Planning, New York Acad. of Sciences, New York, N.Y. (NYAS, 2 E. 63 St., New York 10021)

17-20. American Orthopsychiatric Assoc., New York, N.Y. (E. Harrison, 477 FDR Drive, New York, N.Y.)

18. American Vacuum Soc., midwestern section, Houston, Tex. (J. H. Kimzey, Manned Spacecraft Center, 2101 Webster-Seabrook Rd., Houston 77058)

18-19. Zinc Metabolism, symp., Detroit, Mich. (A. S. Prasad, School of Medicine, Wayne State Univ., Detroit 48207)

18-20. Michigan Acad. of Science, Arts, and Letters, Univ. of Michigan, Ann Arbor. (I. J. Cantrall, Museum of Zoology, Univ. of Michigan, Ann Arbor)

19-20. New York Microscopical Soc., biennial symp., New York, N.Y. (T. G. Rochow, American Cyanamid Co., Room 467A, Stamford, Conn. 06904)

19-20. British Assoc. of **Physical Medicine**, annual, London, England. (J. P. Mitchell, 21 St. John St., Manchester 3, England)

19-21. American Soc. of Internal Medicine, Chicago, Ill. (A. V. Whitehall, 3410 Geary Blvd., San Francisco, Calif.)

20. Identification of Drugs and Poisons, symp., Pharmaceutical Soc. of Great Britain, London. (PSGB, 17 Bloomsbury Sq., London, W.C.1)

22-25. Thermophysical Properties, 3rd symp., Purdue Univ., Lafayette, Ind. (S. Gratch, Ford Motor Co., P.O. Box 2053, Dearborn, Mich. 48121)

22-26. Medical Film, intern. congr., Paris, France. (Dr. Beauchesne, 22, rue Micheli-du-Crest, Geneva, Switzerland)

22-26. Institute of Electrical and Electronics Engineers, intern. convention, New York, N.Y. (E. L. Harder, IEEE, Box A, Lenox Hill Station, New York 10021)

22-26. American College of Physicians, Chicago, Ill. (E. C. Rosenow, Jr., ACP, 4200 Pine St., Philadelphia, Pa. 19104)

22-26. Physics and Chemistry of Fission, symp., Salzburg, Austria. (J. H. Kane,

5 MARCH 1965



number **479,322**

...one of a set of Beckman UV Cells ordered recently by a major Southeast research laboratory for use with a DB[®] Ultraviolet Spectrophotometer. They were delivered almost immediately.

Since then, of course, we've topped the 480,000 mark by several hundred cells...all shipped off to owners of all makes of ultraviolet spectrophotometers and colorimeters around the world.

Sometimes we're amazed how fast you buy them. After all, we are not the only manufacturer of cells. But you do get flawless and consistent quality, which minimizes matching and gives reliable and reproducible results. And you can select from a complete line of rectangular, cylindrical and demountable gas and liquid cells; liquid micro-cells and micro-aperture flow cells; plus cell holders and other attachments. And we manufacture a complete line of UV spectrophotometers, giving us first-hand insight into your cell requirements.

For a detailed, illustrated catalog of nearly 150 cells and related accessories, contact your local Beckman Sales Engineer, or write for Data File LUV-365. And ask him about Cell No. 479,322... not because it's unique, but because it's such an ordinary case history of availability and quick delivery.

Beckman

INSTRUMENTS, INC.

SCIENTIFIC AND PROCESS INSTRUMENTS DIVISION FULLERTON, CALIFORNIA • 92634

INTERNATIONAL SUBSIDIARIES: GENEVA, SWITZERLAND; MUNICH, GERMANY; Glenrothes, scotland; Paris, France; Tokyo, Japan; Capetown, South Africa

EFFECTIVE FEBRUARY 15, 1965

NEW ORGANIC CHEMICALS NOW AVAILABLE IN J.T. BAKER'S GROWING LINE

$C_6^{-}C_7^{-}C_8^{-}Olefins$			
J658	2,3-Dimethyl-2-butene , 'Baker' (CH₃)₂C:C(CH₃)₂ FW 84.16 B.P. 70-73 °C.	10 g. 25 g.	8.00 16.00
J812	2,5-Dimethyl-2-hexene, 'Baker' (CH₃)₂CHCH₂CH:C(CH₃)₂ FW 112.22 B.P. 113-114°C.	10 g. 25 g.	12.50 25.00
J813	trans- 2,5-Dimethyl-3-hexene, 'Baker' (CH₃)₂CHCH:CHCH(CH₃)₂ FW 112.22 B.P. 101-102°C.	10 g. 25 g.	12.50 25.00
J960	cis-4,4-Dimethyl-2-pentene, 'Baker' CH₃C(CH₃)₂CH:CHCH₃ FW 98.19 B.P. 80-81°C.	10 g. 25 g.	40.00 80.00
M090	3-Ethyl-1-pentene, 'Baker' CH₃CH₂CH(C2H₅)CH:CH2 FW 98.19 B.P. 83.5-84.5°C.	10 g. 25 g.	6.50 14.50
M091	3-Ethyl-2-pentene, 'Baker' CH₃CH₂C(C2H₅):CHCH₃ FW 98.1 9 B.P. 95.5-96.5°C.	10 g. 25 g.	5.00 11.25
N017	trans- 2-Heptene , 'Baker' CH ₃ (CH ₂) ₃ CH:CHCH ₃ FW 98.19 Assay (CH ₃ (CH ₂) ₃ CH:CHCH ₃) 99% Min. B.P. 97.5-98.5°C.	10 g. 25 g.	4.00 7.00
N018	trans- 3-Heptene , 'Baker' CH ₃ CH ₂ CH ₂ CH:CHCH ₂ CH ₃ FW 98.19 B.P. 95.5-96.0°C.	10 g. 25 g.	7.00 14.00
N241	trans- 3-Hexene, 'Baker' CH ₃ CH ₂ CH:CHCH ₂ CH ₃ FW 84.16 B.P. 67-68°C.	25 g. 50 g.	20.00 35.00
Q586	trans- 2-Methyl-3-heptene , 'Baker' CH ₃ CH ₂ CH ₂ CH:CHCH(CH ₃) ₂ FW 112. 22 B.P. 112-113°C.	25 g. 100 g.	40.00 120.00
Q605	4-Methyl-1-hexene, 'Baker' CH₃CH₂CH(CH₃)CH₂CH:CH₂ FW 98,19 B.P. 86-87°C.	25 g. 100 g.	12.00 35.00
Q606	5-Methyl-1-hexene, 'Baker' (CH ₃) ₂ CHCH ₂ CH ₂ CH ₂ CH ₂ CH ₂ FW 98.19 B.P. 85.0-85.5°C.	25 g. 100 g.	14.00 42.00
Q892	3-Methyl-1-pentene , 'Baker' CH ₃ CH ₂ CH(CH ₃)CH:CH ₂ FW 84.16 B.P. 54.0-54.5°C.	10 g. 25 g.	15.00 25.00
\$726	trans- 2-Octene , 'Baker' CH ₃ (CH ₂) ₄ CH:CHCH ₃ FW 112.22 Assay (CH ₃ (CH ₂) ₄ CH:CHCH ₃)99% Min. B.P. 124.5-125.5°C.	10 g. 25 g.	8.00 16.00
\$727	trans- 3-Octene , 'Baker' CH ₃ (CH ₂) ₃ CH:CHCH ₂ CH ₃ FW 112.22 Assay (CH ₃ (CH ₂) ₃ CH:CHCH ₂ CH ₃),99% Min B.P. 123.0-123.5°C.	10 g. . 25 g.	18.00 36.00
The group of olefins listed above have just been added to			

The group of olefins listed above have just been added to J. T. Baker's line of organic laboratory chemicals and are available for immediate delivery. They represent newest additions not yet listed in our catalogs. Check the chemicals you require and pass this list to your purchasing department. Orders can be sent to your nearest distributor of Baker organics or directly to J. T. Baker. And you'll get fast service.

Many other olefins are described in our Catalog 641 and in the recently issued Supplement No. 1. Both are available on request. Write J. T. Baker Chemical Co., Phillipsburg, N. J.

J.T. Baker Chemical Co.

Intern. Conferences Branch, Div. of Special Projects, U.S. Atomic Energy Commission, Washington, D.C. 20545)

23–24. Progress in **Biochemistry and Therapeutics**, 2nd symp., New York, N.Y. (C. Neuberg Soc. for Intern. Scientific Relations, 600 Lafayette Ave., Brooklyn, N.Y. 11216)

23-25. Asthma, world conf., Eastbourne, England. (Secretary, Chest and Heart Assoc., Tavistock House North, Tavistock Sq., London, W.C.1, England)

24-26. Society of the **Plastics** Industry, 22nd conf., western section, Coronado, Calif. (SPI 611 S. Catalina, Los Angeles, Calif.)

24–26. National Federation of Science Abstracting and Indexing Services, Columbus, Ohio. (C. J. Wessel, Prevention of Deterioration Center, NAS–NRC, 2101 Constitution Ave., Washington, D.C.)

24–27. American **Physical** Soc., Kansas City, Mo. (R. G. Sachs, P.O. Box 344, Argonne, Ill. 60440) 24–27. Society for Research in **Child**

24–27. Society for Research in **Child Development**, biennial, Minneapolis, Minn. (W. Hartup, Inst. for Child Development, Univ. of Minnesota, Minneapolis 55455)

25-26. Advances in **Tracer Methodol**ogy, 10th symp., Zurich, Switzerland. (E. Landegren, New England Nuclear Corp., Ave. de Chailly 28 c, P.O. Box 31, Lausanne 12, Switzerland)

sanne 12, Switzerland) 25-27. Heart and Circulation in the Newborn and Infant, Chicago, Ill. (D. E. Cassels, Chicago Heart Assoc., 22 W. Madison St., Chicago 60602)

25-27. Mid-Central States Orthopaedic Soc., 12th annual, Hot Springs, Ark. (Mrs. P. Lovan, 4101 Westport Lane, Wichita, Kan.)

26. Marine Environment, symp. and NDEA workshop, Fullerton, Calif. (M. D. Brown, Fullerton Junior College, Fullerton)

26-27. Association of **Industrial Medical Officers**, spring meeting, London, England. (Joint Secretariat, 47 Lincoln's Inn Fields, London W.C.2)

26-27. Louisiana Acad. of Sciences, Natchitoches. (S. M. Weathersby, Dept. of Zoology, Louisiana Polytechnic Inst., Ruston)

26-27. Rural Health, 18th natl. conf., Miami Beach, Fla. (B. L. Bible, 535 N. Dearborn St., Chicago, Ill. 60610)

26-2. **Rehabilitation**, natl. conf., Melbourne, Australia. (Intern. Soc. of Rehabilitation of the Disabled, 701 First Ave., New York, N.Y. 10017)

27-31. National Science Teachers Assoc., natl. convention, Denver, Colo. (NSTA, 1201 16th St., Washington, D.C. 20036)

27–3. Developmental Biology, U.S.– Japan Cooperative Science Program seminar, Tokyo, Japan. (Office of International Science Activities, National Science Foundation, 1951 Constitution Ave., NW, Washington, D.C.)

28. American College of Apothecaries, Inc., Detroit, Mich. (R. E. Abrams, Hamilton Court Hotel, 39th and Chestnut Sts., Philadelphia, Pa. 19104)

28-30. American Assoc. of **Colleges of Pharmacy**, Detroit, Mich. (C. W. Bliven, AACP, 1507 M St., NW, Washington, D.C. 20005)

T

Í. Bak

SCIENCE, VOL. 147