

calendar

MARCH 1986

- 11-13 **Acoustics Conf** Oldenburg, FRG
See issue: 1/86
- 12-14 **Conf on Polymer Phys** Kaiserslautern, FRG See issue 1/86
- 12-14 **Conf on Phys Instruction** Giesen, FRG See issue 1/86
- 14 **S Course on Modern Experimental Techniques in Materials Research** Atlantic City, NJ See issue 11/85
- 17-21 **50. Physikertagung** Heidelberg, FRG See issue 1/86
- 17-20 **Symp on Adsorption on Carbons** Hilton Head, SC See issue 11/85
- 18-19 **19th Ann Symp on Ion Beam Tech and Its Applications** Anaheim, CA [AVS Southern chptrs.] (Contact C. Walsh [Tel. 818-349-5690] Helium Leak Testing, Inc., 19348 Londerly St., Northridge, CA 91324)
- 18-21 **Conf on Recent Advances in Electron and Light Imaging in Bio and Medicine** New York, NY See issue 1/86
- 19-21 **Wksp on Personal Computer Interfacing for Scientific Instrument Automation** Blacksburg, VA See issue 1/86
- 21-25 **Wksp on the Interface Between Electronic Structure and Dynam-**

ics Whitney Lab. and Marineland, FL See issue 9/85

- 22-25 **6th General Conf of Eur Phys Soc Condensed-Matter Div** Stockholm, Sweden See issue 7/85
- 24-26 **Top Mtg on Noninvasive Assessment of the Visual System** Monterey, CA See issue 11/85
- 24-27 **AGU Chapman Conf on Modeling of Rainfall Fields** Caracas, Venezuela (Contact AGU [Tel. 202-462-6903] 2000 Florida Ave., N.W., Washington, DC 20009)
- 24-27 **Top Mtg on Short-Wavelength Coherent Radiation** Monterey, CA See issue 7/85
- 25-27 **Vacuum Sci Tech and Applications** Univ. of Strathclyde, Glasgow, UK See issue 9/85
- 25-5 **Conf on Phys and Fabrication of Microstructures** Les Houches, France See issue 11/85
- 31-4 **NATO Adv Res Wksp on Relativistic Channeling** Acquafredda di Maratea, Italy See issue 1/86
- 31-4 **APS March Mtg** Las Vegas, NV (Contact W. W. Havens Jr., 335 E. 45th St., New York, NY 10017) note SPS program
- 31-4 **1986 Tech Symp Southeast on Optics and Optoelectronics** Orlando, FL See issue 7/85
- 31-4 **OSA 1986 Spring Mtg** Honolulu, HI See issue 1/86

Please note: Complete information is given only for new listings (marked +) or for newly revised listings (marked •). All items previously listed indicate the issue of PHYSICS TODAY that carries the complete listing. The listings are coded as follows:
date title location [sponsor] (contact) [abstract deadline].

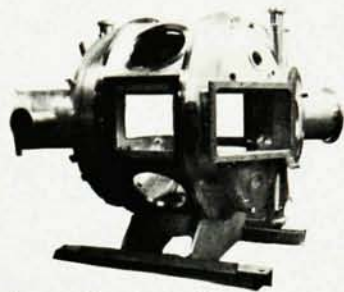
Conferences sponsored by AIP Member Societies are listed with dates in boldface.

This calendar appears in alternate (odd-numbered) months. Notices should be sent to: Calendar, PHYSICS TODAY, 335 East 45th Street, New York, NY 10017, at least three months in advance.

AAAS American Association for the Advancement of Science
AAPM American Association of Physicists in Medicine
AAPT American Association of Physics Teachers
AAS American Astronomical Society
ACA American Crystallographic Association
AGU American Geophysical Union
ANS American Nuclear Society
APS American Physical Society
ASA Acoustical Society of America
AVS American Vacuum Society
BNL Brookhaven National Laboratory
CNRS Centre National de la Recherche Scientifique
DOE Department of Energy
DPG Deutsche Physikalische Gesellschaft
EPS European Physical Society
IAEA International Atomic Energy Agency

IEEE Institute of Electrical and Electronics Engineers
IOP Institute of Physics (London)
IUPAC International Union of Pure and Applied Chemistry
IUPAP International Union of Pure and Applied Physics
LBL Lawrence Berkeley Laboratory
LLNL Lawrence Livermore National Laboratory
NAS National Academy of Sciences
MRS Materials Research Society
NBS National Bureau of Standards
NRC Nuclear Regulatory Commission
NRL Naval Research Laboratory
NSF National Science Foundation
ORNL Oak Ridge National Laboratory
OSA Optical Society of America
S of R Society of Rheology
SPS Society of Physics Students

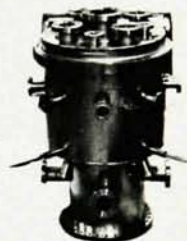
CUSTOM FABRICATION OF SCIENTIFIC EQUIPMENT - Customer Design or Design to Specification in HIGH VACUUM CHAMBERS AND SYSTEMS



Vacuum Chamber for Plasma Research.
60" Diameter Aluminum.

CRYOGENICS

- A line of Standard Bell Jar, Faceted Collar Systems.
- Unique full jacket water cooled Bell Jar.
- Unique 18" Bell Jar with door.
- Rotary, Water and LN₂ feed thru's in stock.
- Many system designs easily adaptable to customer process currently on hand.



Custom Designed UHV Bell Jar with LN₂ Cooled Furnaces.

SPECIAL CHAMBERS



"LOAD LOCK" CHAMBER
12" x 12" x 18" FOR UP TO 6" WAFERS.

We can provide Design and Fabrication of Liquid Helium Refrigerators and Research Dewars.

MTM
CRYO TECH LAB

DIV. OF

Meyer Tool & Mfg., Inc.

9221 SOUTH KILPATRICK
OAK LAWN, ILLINOIS 60453
(312) 425-9080

Circle number 62 on Reader Service Card

2-3 **22nd Ann Mtg Nat Council on Radiation Protection and Measurements** Washington, DC *See issue 9/85*

3-5 • **Joint Mtg of APS and Texas Sec AAPT, Zone 10 SPS Mtg** Univ. of Texas, Dallas (Contact J. H. Hoffman [Tel. 512-736-7424] Texas Sec. AAPT, Phys. Dept., Trinity Univ., San Antonio, TX 78284) *note SPS program*

7-8 **Mtg on Ultrasound in Medicine** Univ. of Bath *See issue 1/86*

7-10 → **1986 Spring Conf on Acoustics** Salford, UK [Inst. of Acoustics] (Contact A. Corkhill, MIOA [Tel. 07073-23400] ICI Acoustics, P.O. Box 6, Bessemer Rd., Welwyn Garden City, England AL7 1HD)

7-10 **1986 Mtg on Acoustics** Univ. of Salford, UK *See issue 1/86*

7-10 **4th Int Symp on Incoherent Light Sources** Karlsruhe, FRG *See issue 11/85*

7-10 **Low-Energy Ion Beams—4** Univ. of Sussex, UK *See issue 9/85*

7-11 **Solid State Phys Conf** Freudenstadt, FRG *See issue 1/86*

7-12 **Extraterrestrial Phys** Göttingen, FRG *See issue 1/86*

8-10 **Atomic and Molecular Phys Conf** Univ. of Aberdeen, UK *See issue 7/85*

13-23 **3rd Int Tech Symp on Optical and Optoelectronic Applied Sci and Eng** Innsbruck, Austria *See issue 7/85*

14-17 **24th Int Magnetism Conf** Phoenix, AZ *See issue 11/85*

14-17 **8th Eur Conf on Surface Sci** FRG *See issue 11/85*

14-18 **13th Eur Conf on Controlled Fusion and Plasma Heating** Schliersee, FRG *See issue 11/85*

14-18 **MRS Spring Mtg** Palo Alto, CA *See issue 1/86*

16-18 **7th Wksp on Grand Unification and ICOBAN '86** Toyama City, Japan *See issue 11/85*

16-18 **Conf on Macromolecular Flexibility and Behavior in Solution** Univ. of Bristol, UK *See issue 9/85*

18-19 → **Spring Mtg NY Sect APS** Brookhaven Natl. Lab., Upton, NY [NY Sect APS] (Contact R. J. von Gutfeld IBM Thomas J. Watson Res. Ctr., Yorktown Heights, NY 10598)

18-19 → **Zone 3 SPS Mtg, AAPT Central PA Sec Mtg** Carlisle, PA (Contact R. M. Winter [Tel. 717-532-1570] Phys. Dept., Shippensburg Univ., Shippensburg, PA 17257)

21-16 **S Course on Physical Climatology for Solar and Wind Energy** Trieste, Italy *See issue 1/86*

21-22 **S Course on Micro-analytical Techniques in Materials Sci** Washington, DC *See issue 1/86*

21-23 **Conf on Frontiers of Electron Microscopy in Materials Sci** Argonne, IL *See issue 1/86*

24-25 → **Symp on Fusion Energy Development** Washington, DC [Fusion Power Assoc., Atomic Industrial Forum] (Contact Fusion Power Assoc. [Tel. 301-258-0545] 2 Professional Dr., Gaithersburg, MD 20879)

24-26 → **Int Symp on the Three-Body Force in the Three-Nucleon Sys** Washington, DC (Contact B. L. Berman [Tel. 202-676-6275] Phys. Dept., George Washington Univ., Washington, DC 20052)

28-1 **APS Spring Mtg** Washington, DC *See issue 9/85*

29-1 **4th Int Conf on Applications of Fiber Optics** London, UK *See issue 9/85*

MAY 1986

1-2 **Semiconductor-Based Heterostructures: Interfacial Structure and Stability** Murray Hill, NJ *See issue 1/86*

4-8 → **AGU Chapman Conf on Fast Glacier Flow** BC, Canada (Contact G. Clarke [Tel. 604-228-3602] Geophys. and Astron. Dept., Univ. of British Columbia, Vancouver, BC, Canada V6T 1W5)

Rugged reliability in high voltage, DC power supplies . . . the Glassman PG series



Air insulated, lightweight and compact, the PG series is the forefront of high voltage power supply technology. Its off-the-line switching design provides high efficiency and high reliability. The PG series is tightly regulated — better than $\pm 0.005\%$ line and load . . . standard models range from 0-5KV @ 100 mA to 0-300KV @ 2mA, positive, negative, or reversible polarity.

Just look at some of our standard features:

- constant voltage/constant current operation
- remote and front panel monitoring and programming of both DC output voltage and current
- low stored energy for maximum personnel/equipment safety
- low ripple — better than 0.1% of rated voltage at full load

For specifications and complete information
call John Belden at 201-534-9007

Innovations in high voltage power supply technology.

GLASSMAN HIGH VOLTAGE INC.

Route #22 (East), Salem Industrial Park, P.O. Box 551, Whitehouse Station, N.J. 08889
(201) 534-9007 • TWX 710-480-2839

Circle number 63 on Reader Service Card



- 5-7 **Seminar on Phys of Emergent Modalities in Clinical Radiology** Stateline, NV *See issue 1/86*
- 5-9 **7th Int Conf on Plasma-Surface Interactions in Controlled Fusion Devices** Princeton, NJ *See issue 11/85*
- 9-10 → **Mtg on Microcomputers in Phys and Astron, Zone 6 SPS Mtg** Valdosta, GA [SPS] (Contact D. Marks, Phys. Dept., Valdosta State College, Valdosta, GA 31698)
- 12-16 **111th ASA Mtg** Cleveland, OH *See issue 1/84*
- 12-16 **Int Conf on Heavy-Ion Nuclear Collisions in the Fermi Energy Domain** Caen, France *See issue 7/85*
- 13-15 **6th Eur Optoelectronics Mtg** Paris, France *See issue 11/85*
- 13-16 **8th Europhys Conf on Computational Phys: Computing in Plasma Phys** Garmisch-Partenkirchen, FRG *See issue 9/85*
- 19-23 **AGU Spring Mtg** Baltimore *See issue 1/86*
- 20-23 **1st Int Conf on the Phys of Phase Space** College Park, MD *See issue 11/85*
- 22-24 **12th Symp on Photon Detectors** Varna, Bulgaria *See issue 9/85*
- 25-30 **Int Symp on the Properties and Applications of Metal Hydrides V** Maubuisson, France *See issue 11/85*
- 26-31 → **Int Conf on Fast-Neutron Phys** Dubrovnik, Yugoslavia (Contact D. Miljanić [Tel. 041-435-111] Ruder Bosković Inst., P.O. Box 1016, 41 001 Zagreb, Yugoslavia)
- 26-31 **2nd Conf on Particle and Nuclear Phys** Lake Louise, Canada *See issue 1/86*
- 27-30 **Int Conf on Composite Interfaces** Cleveland, OH *See issue 7/85*
- 27-30 **Optical and Millimeter Wave Propagation in the Atmosphere** Florence, Italy *See issue 11/85*
- 28-30 **40th Ann Frequency Control Symp** Philadelphia, PA *See issue 1/86*
- 29-31 **Wksp on Personal Computer Interfacing for Scientific Instrument Automation** Blacksburg, VA *See issue 1/86*

JUNE 1986

- 1-9 **S Course on Genesis and Propagation of Cosmic Rays** Erice, Sicily, Italy *See issue 9/85*
- 2-3 → **S Course on Techniques for Surface Analysis** Dayton, OH (Contact J.T. Grant, Univ. of Dayton Res. Inst., 300 College Park, Dayton, OH 45469)
- 2-6 **1986 Quebec Symp on Optical and Optoelectronic Applied Sci and Eng** Quebec, Canada *See issue 7/85*
- 2-6 **5th Int Conf on Phonon Scattering in Condensed Matter** Urbana, IL *See issue 7/85*
- 2-14 **NATO Adv Study Inst on Phys of Two-Dimensional Electron Gas** Antwerp, Belgium *See issue 1/86*



Your NMR work deserves our RF amplifiers.

Conservatively-rated power amplifiers, with the noise-blanking capability that pulsed NMR demands, have been a specialty of ours for well over a decade. Whether your needs for clean rf power are at the 200- to 500-watt level (as supplied by our Model 200L shown here) or up in the kilowatt range, we have the pulse power systems to ensure your peace of mind.

During pulse operation (at duty cycles up to 25%), the 200L can deliver up to 500 watts over a bandwidth of 1-200 MHz; yet when blanked with a +5V signal it reduces noise 30 dB in less than 5 microseconds. We know how important that noise-free environment is to the integrity of your results.

If you're upgrading an existing system or moving into high-power spectrometry for solid-material experiments, we suggest you work for a few moments with an AR amplifier. Enjoy the instant frequency response without need for tuning or bandswitching; the total immunity to any degree or phase of load mismatch; the assurance that nowhere within the bandwidth will the output power be less than the rated minimum. (When we say minimum, we mean *minimum*.)

Call us to discuss your present and expected applications. Or write for our NMR Application Note 0013 and the informative booklet "Your guide to broadband power amplifiers."

AR **AMPLIFIER
RESEARCH**

160 School House Road, Souderton, PA 18964-9990 USA
Phone 215-723-8181 • TWX 510-661-6094
APS SHOW-BOOTH #106

7816

Circle number 64 on Reader Service Card

- 3-5 3rd Int Conf on Advanced Infrared Detectors and Systems London, UK See issue 1/86
- 4-6 → 8th Symp on Applied Surface Analysis Dayton, OH (Contact J. T. Grant, Univ. of Dayton Res. Inst., 300 College Park, Dayton, OH 45469)
- 4-6 Top Mtg on Tunable Solid-State Lasers Zigzag, OR See issue 1/86
- 8-11 → 1986 IEEE Int Symp on Applications of Ferroelectrics Bethlehem, PA [IEEE, Amer. Ceramic Soc.] (Contact B. Zdinak, Dept. of Metal-

lurgy and Materials Eng. [Tel. 215-861-4221] Lehigh Univ., Whitaker Lab. 5, Bethlehem, PA 18015)

- 9-13 → 4th Int Conf on Particle-Induced X-Ray Emission Tallahassee, FL (Contact M. Telli [Tel. 904-644-6250] Nuclear Res. Bldg., Florida State Univ., Tallahassee, FL 32306)
- 9-13 → Heidelberg Colloq on Glassy Dynamics and Optimization Heidelberg, FRG (Contact L. van Hemmen, Univ. of Heidelberg SFB 123, Im Neuenheimer Feld 294, D-6900 Heidelberg 1, FRG)

- 9-13 5th Int Conf on Ion-Beam Modification of Materials Catania, Italy See issue 11/85

- 9-13 → IQEC '86: Int Quantum Electronics Conf San Francisco, CA [OSA] (Contact OSA [Tel. 202-223-8130] 1816 Jefferson Pl. N.W., Washington, DC 20036) [6 Jan. 86]

- 9-13 → CLEO '86: Conf on Lasers and Electro-optics San Francisco, CA [OSA] (Contact OSA [Tel. 202-223-8130] 1816 Jefferson Pl. N.W., Washington, DC 20036) [6 Jan. 86]

- 9-13 8th Int Conf on Spectral Line Shapes Williamsburg, VA See issue 7/85

- 10-13 Conf on Quasi Elastic Light Scattering Spectra Worcester, MA See issue 1/86

- 10-10 Sum Sch in Observational Astron and Astrophys Rome, Italy See issue 11/85

- 15-20 ANS Ann Mtg Reno, NV See issue 9/85

- 15-27 → MIT-Harvard Sum Program on Nuclear Weapons and Arms Control Cambridge, MA (Contact W. Durch [Tel. 617-253-8075] MIT, Ctr. for Int. Studies, 292 Main St., Cambridge, MA 02142) [31 Mar. 86]

- 16-18 → 46th Ann Conf of Physical Electronics Austin, TX (Contact L. Kleinman [Tel. 512-471-3215] Phys. Dept., Univ. of Texas, Austin, TX 78712) [25 Apr. 86]

- 16-18 Ann Joint Mtg Can Soc Color-Int Soc Color Council: Color Reproduction Toronto, ON See issue 11/85

- 16-19 Conf on Star Formation in Galaxies Pasadena, CA See issue 1/86

- 16-19 5th Top Mtg on Ultrafast Phenomena Aspen, CO See issue 11/85

- 16-20 15th Int Symp on Rarefied Gas Dynamics Grado, Gorizia, Italy See issue 11/85

- 16-5 Wksp in Condensed Matter, Atomic and Molecular Phys Trieste, Italy See issue 1/86

- 17-19 MRS Eur Mtg Strasbourg, France See issue 1/86

- 18-20 Mtg APS Div of Electron and Atomic Phys Eugene, OR See issue 1/86

- 19-20 Mtg on Color in Computer-Generated Displays Toronto, ON See issue 11/85

- 19-30 NATO Adv Study Inst on Techniques and Concepts of High-Energy Phys St. Croix, US Virgin Islands See issue 11/85

- 22-26 168th Mtg AAS Ames, IA See issue 1/86

- 22-27 1986 Ann Mtg ACA McMaster Univ., Hamilton, ON See issue 3/85

- 23-26 → 29th Acoustic Emission Working Group Mtg Kingston, Ontario, Canada (Contact S. L. McBride [Tel. 613-545-7637] Phys. Dept., Royal Military College, Kingston, Ontario K7K 5L0) [15 May 86]

- 23-27 Conf on Precision Electromagnetic Measurements Gaithersburg, MD See issue 1/86

- 23-27 CEBAF 1986 Sum Wksp Newport News, VA See issue 1/86

BERTAN 24 NIM High Voltage Power Supplies from Stock

- Output Voltage to 10kV • AC & DC Input Models • Low Ripple & Noise • Remotely Programmable • Short Circuit & Arc Protected • Reversible Polarity • MWPC Series for Multiwire Proportional Chambers • 0.001% Regulation • 50 ppm/°C Temp. Coef. • Custom & OEM Designs Available

BERTAN Associates manufactures the widest range of precision high voltage power supplies in NIM configuration. These units are ideally suited for use with sensitive nuclear detectors. Each BERTAN power supply is fully tested and burned-in prior to shipment. All have one year warranty.

BERTAN Associates specialize in the design and manufacture of precision high voltage power supplies and instrumentation. A BERTAN Applications Engineer is ready to assist you in satisfying your requirement.

See EEM or GOLD BOOK for specifications on over 100 standard products

BERTAN
ASSOCIATES, Inc.

121 New South Road, Hicksville, NY 11801
• (516) 433-3110 • TWX 510-221-2144



Circle no. 65 for immediate application.
Circle no. 66 for literature only

AIP INTRODUCES Pi-NET AN ELECTRONIC PHYSICS INFORMATION NETWORK

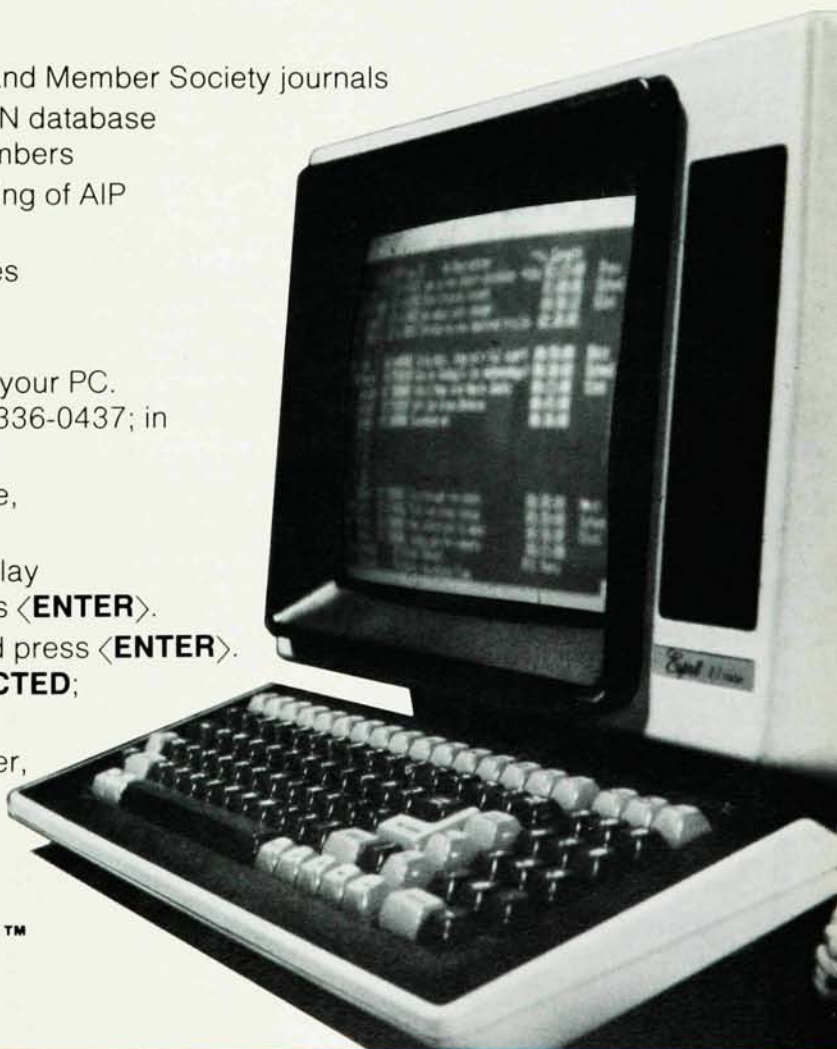
MAKE A LOCAL PHONE CALL...THE REST IS ON US! *Pi-NET is an Electronic Database Service providing selected AIP and Member Society Information to the Physics Community, Online. This one-year Pilot Program is being offered Free Of Charge (except for the cost of a local phone call) to Members of AIP Member and Affiliate Societies.*

Services Include

- ☐ Job Opportunities in physics
- ☐ Calendar of Meetings
- ☐ Advance Abstracts of over 40 AIP and Member Society journals
- ☐ Journal Article Titles from AIP's SPIN database including: author(s), date, page numbers
- ☐ Electronic catalog and online ordering of AIP and Member Society publications
- ☐ Announcements and News Releases

Available March 31st

1. Dial local GTE Telenet number from your PC.
(To obtain local number, call 1-800-336-0437; in Virginia call 703-689-8400)
2. When you hear the high-pitched tone, press **<ENTER>** twice.
3. Telenet will announce itself and display **TERMINAL = .** Type in **D1** and press **<ENTER>**.
4. At the **@** prompt, type in **516617** and press **<ENTER>**.
Telenet will display **516617 CONNECTED**; press **<ENTER>** again.
5. Pi-NET will announce itself. To register, type in an asterisk **<*>** and press **<ENTER>**.
6. **Follow** instructions displayed.



PI-NET™



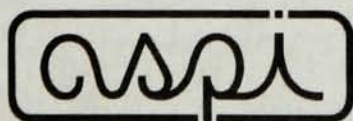
SIGNAL PROCESSING SOFTWARE AND HARDWARE FOR YOUR PC

TMS 32010 Hardware/Software

For your IBM PC, XT, or AT with the 320/PC CARD. TMS 32010, A/D, D/A on the board and utility software. Debugger, loader, real-time efficiency monitor and patch processor, and signal acquisition and editing utilities. The Algorithm Development Package priced under \$2,000.

Software for Digital Filter Design

For your IBM PC, XT, AT or compatible. Design Butterworth, Chebyshev, Elliptic, Kaiser window and Parks-McClellan filters for general purpose and TMS 320-specific implementations. Now available (version 2.0) with arbitrary magnitude FIR filter design capability. Generates TMS 32010 assembly code for filter implementation. Priced starting at under \$1000.



Atlanta Signal Processors, Inc.
770 Spring St., Atlanta, GA 30308
(404) 892-7265

- 23-4 → **Sum Course in Applied Optics** London, England (Contact J. C. Dainty [Tel. 01-589-5111, ext. 6842] Optics Sec., Blackett Lab., Imperial College, London SW7 2BZ)
- 23-13 → **Wksp on Phase Changes and Reactions of Microclusters** Telluride, CO (Contact P. Salamon, Dept. of Mathematical Sci., San Diego Univ., San Diego, CA 92182)
- 25-27 **AAPT Sum Mtg** Columbus, OH See issue 1/86
- 29-3 → **31st Ann Mtg Health Phys Soc** Pittsburgh, PA (Contact D. Taub, 1340 Old Chain Bridge Rd., Ste. 300, McLean, VA 22101)
- 30-1 **Sum Sch on Chance and Matter** Les Houches, France See issue 11/85
- 30-4 **11th Int Liquid Crystal Conf** Berkeley, CA See issue 1/86
- 30-4 **4th Int Mtg of Phys Chem: Dynamics of Molecular Crystals** Grenoble, France See issue 7/85
- 30-10 → **S Course on Laser Cooling and Trapping** Helsinki, Finland [Res. Inst. for Theor. Phys., Finnish Ministry of Educ., NORDITA] (Contact S. Stenholm, Res. Inst. for Theor. Phys., Univ. of Helsinki, Siltavuorenpenger 20 C, SF-00170 Helsinki 17, Finland)
- 30-11 → **NATO Adv Study Inst on Micro-electronic Materials and Processes** Castelvecchio Pascoli, Italy (Contact R. A. Levy [Tel. 201-582-7375] AT&T Bell Labs., Room 2C-235, Murray Hill, NJ 07974)
- 30-20 → **Wksp on Simulated Annealing** Telluride, CO (Contact P. Salamon, Dept. of Mathematical Sci., San Diego Univ., San Diego, CA 92182)
- 7-20 → **Wksp on Intramolecular Dynamics** Telluride, CO (Contact P. Salamon, Dept. of Mathematical Sci., San Diego Univ., San Diego, CA 92182)
- 12-17 **98th Ann Mtg ASP** Boulder, CO See issue 11/85
- 13-25 **NATO Adv Study Inst on High-Brightness Accelerators** Pitlochry, Scotland See issue 1/86
- 14-17 **4th Int Conf on Megagauss Magnetic-Field Generation and Related Topics** Santa Fe, NM See issue 7/85
- 14-18 **Conf on Scanning Tunneling Microscopy** Santiago de Compostela, Spain See issue 1/86
- 14-19 → **S Course on Design and Analysis of Scientific Experiments** Cambridge, MA (Contact Dir. of Summer Session, Rm. E19-356, MIT, Cambridge, MA 02139)
- 15-18 **12th Int Conf on Improving University Teaching** Heidelberg, FRG See issue 1/86
- 16-18 **Int Top Mtg on Image Detection and Quality** Paris, France See issue 7/85
- 16-23 **23rd Int Conf on High-Energy Phys** Berkeley, CA See issue 3/85
- 16-25 **8th Int Cong on Math Phys** Marseilles, France See issue 7/85
- 21-23 → **23rd Ann Conf on Nuclear and Space Radiation Effects** Providence, RI (Contact D. W. Bushmire [Tel. 505-844-6572] Organization 2151, Sandia Natl. Labs., Albuquerque, NM 87185)
- 21-25 → **S Course on Applied Molecular Spectroscopy: Infrared** Arizona St. Univ. (Contact J. Fuchs, Chem. Dept., Arizona St. Univ., Tempe, AZ 85287)
- 21-1 **8th Sum Wksp in Astron and Astrophys** Santa Cruz, CA See issue 11/85
- 21-8 → **Latin Amer Sch of Phys in Exper and Theor Particle Phys and Accelerators** Mexico City, Mexico [OAS, Fermilab, CERN, BNL] (Contact C. Avilez, Instituto de Fisica Apdo. Postal 20-364, 01 Mexico, D.F.)
- 22-7 → **31st Sum Sch on Localization and Interaction** St. Andrews, Scotland [NATO, SERC] (Contact D. M. Finlayson, Univ. of St. Andrews, Phys. Dept., N. Haugh, Fife, St. Andrews, KY16 9SS, Scotland)
- 23-24 → **Wksp on Quantitative X-Ray Diffraction Analysis** Gaithersburg, MD [NBS] (Contact L. Struble [Tel. 301-921-2635] B348 Res. Bldg., NBS, Gaithersburg, MD 20899)
- 24-1 **12th Int Cong on Acoustics** Toronto, ON See issue 7/85
- 25-6 → **NATO Adv Res Wksp on Super Field Theories** Vancouver, Canada (Contact H. C. Lee, Theor. Phys., CRNL, Chalk River, Ontario, Canada K0J 1J0)
- 26-9 **NATO Adv Study Inst on Phys and Tech of Hyperthermia** Urbino, Italy See issue 1/86
- 27-1 **Sum Sch on Radiation Oncology Phys** Oxford, OH See issue 1/86
- 28-30 **1986 Sum Computer Simulation Conf** Reno, NV See issue 1/86

JULY 1986

- 1-3 **26th Liège Int Astrophys Colloq** Liège, Belgium See issue 1/86
- 1-5 **5th Int Conf on Mechanics in Medicine and Bio** Univ. of Bologna, Italy See issue 9/85
- 2-4 **Sum Sch on History of Phys for Physicists** Oxford, UK See issue 1/86
- 5-15 → **10th S Course on Intercalation in Layered Materials** Erice, Sicily, Italy [EPS] (Contact M. S. Dresselhaus, Rm. 13-3005, MIT, Cambridge, MA 02139)
- 7-8 **Winter Sch on Chaos and Quantum Chaos** Johannesburg, South Africa See issue 1/86
- 7-9 **3rd Int Symp on Applications of Laser Anemometry to Fluid Mech** Lisbon, Portugal See issue 1/86
- 7-11 **Symp on Advances in Helio- and Astroisomology** Aarhus, Denmark See issue 1/86
- 7-11 **4th Int EXAFS and XANES Conf** Abbaye Royale de Fontevraud, France See issue 1/86
- 7-11 **4th Int Conf on Boundary and Interior Layers—Computational and Asymptotic Methods** Novosibirsk, USSR See issue 9/85
- 7-11 **Int Optical Computing Conf** Jerusalem, Israel See issue 7/85
- 7-11 **5th Int Conf on Surface Modification of Metals by Ion Beams** Kingston, ON See issue 7/85

- 28-1 → **S Course on Fiberoptic Communication Sys** Santa Barbara, CA (Contact Dept. of Sci. and Management, Univ. of California Extension, Santa Barbara, CA 93106)
- 28-1 **4th Trieste ICTP-IUPAP Semiconductor Symp** Trieste, Italy See issue 11/85
- 28-8 → **14th SLAC Sum Inst on Particle Phys** Stanford, CA (Contact E. Brennan, SLAC Summer Inst., P.O. Box 4349, Stanford, CA 94305)
- 30-2 **Conf on Computers in Mathematics** Palo Alto, CA See issue 11/85

AUGUST 1986

- 3-7 → **28th Rocky Mountain Conf** Denver, CO [Rocky Mtn. Sec. Soc. for Applied Spectroscopy, Rocky Mtn. Chromatography Discussion Group] (Contact R. Barkley [Tel. 303-492-1158] CIRES, Univ. of Colorado, Boulder, CO 80309) [21 Mar. 86]
- 3-7 **28th Ann AAPM Mtg** Lexington, KY See issue 1/86
- 3-8 → **NMR Symp** Denver, CO (Contact F. P. Miknis, Univ. of Wyoming Res. Corp., Box 3395, Laramie, WY 82071)
- 3-8 → **9th Int EPR Symp** Denver, CO (Contact G. R. Eaton, Chem. Dept., Univ. of Denver, CO 80208)
- 3-8 **Review of Progress in Quantitative Nondestructive Evaluation** La Jolla, CA See issue 11/85
- 4-8 → **S Course on Detection of Infrared Radiation** Santa Barbara, CA (Contact Dept. of Sci. and Management, Univ. of California Extension, Santa Barbara, CA 93106)
- 4-8 → **Sum Sch on Optical Propagation, Detection and Communication** Cambridge, MA (Contact Dir. of Summer Sessions, Rm. E19-356, MIT, Cambridge, MA 02139)
- 4-8 **8th Int Conf on Vacuum Ultraviolet Radiation Phys** Lund, Sweden See issue 3/85
- 5-30 **Sum Sch on Limits of Nuclear Stability** Les Houches, France See issue 11/85
- 6-9 **Conf on the Planet Mercury** Tucson, AZ See issue 1/86
- 10-13 **Int Conf on Low-Energy Dislocation Structures** Charlottesville, VA See issue 7/85
- 11-15 **18th Int Conf on Phys of Semiconductors** Stockholm, Sweden See issue 9/85
- 11-15 **IUPAP Int Conf on Stat Phys: Stat Phys 16** Boston, MA See issue 7/85
- 13-14 → **Symp on Antenna Tech and Applied Electromagnetics** Winnipeg, Manitoba, Canada [Univ of Manitoba, IEEE, NRC of Canada] (Contact L. Shafai, Univ. of Manitoba, Dept. of Electrical Eng., Winnipeg, Manitoba, Canada R3T 2N2)
- 17-22 **30th Ann Int Tech Symp on Optical and Optoelectronic Applied Sci and Eng** San Diego, CA See issue 7/85
- 18-20 → **2nd NASA Symp on the Space Station** Washington, DC (Contact P. Edwards [Tel. 212-408-9778] Amer. Inst. of Aeronautics and As-

tronautics, 1633 Broadway, New York, NY 10019)

- 18-22 **11th Int Conf on Electromagnetic Isotope Separators** Los Alamos, NM See issue 1/86
- 18-28 → **NATO Adv Study Inst on Physical Processes in Interstellar Clouds** Irsee, FRG (Contact G. E. Morfill, Max-Planck Inst. für extrater. Physik, 8046 Garching, FRG) [1 May 86]
- 20-30 **11th Int Sch on Disarmament and Res on Conflicts** Venice, Italy See issue 1/86
- 24-29 → **6th Int Conf on Liquid and Amorphous Metals** Garmisch-Partenkirchen, FRG (Contact E. Lüscher, Phys. Dept. Technische Universität München, D-8046 Garching, FRG)
- 24-30 **11th Int Conf on Few-Body Systems in Particle and Nuclear Phys** Tokyo, Japan See issue 1/86
- 25-27 → **23rd Ann Tech Mtg Soc of Eng Sci** Buffalo, NY (Contact A. Soom, [Tel. 716-636-2768] Dept. of Mechanical and Aerospace Eng., State Univ. of New York at Buffalo, 14260)
- 25-29 **10th Int Conf on Atomic Phys** Tokyo, Japan See issue 1/86
- 25-30 **IUPAP Int Nuclear Phys Conf** Harrogate, UK See issue 3/85
- 26-29 **8th Int Conf on Solid-State Dosimetry** Oxford, UK See issue 11/85
- 26-6 → **NATO Adv Study Inst on Low-Dimensional Conductors and Superconductors** Magog, Québec, Canada (Contact L. G. Caron, Centre de Recherche en Physique du Solide, Faculté des Sciences, Université de Sherbrooke, Québec, Canada J1K 2R1)

SEPTEMBER 1986

- 1-3 **Autumn Course on Seismology** Trieste, Italy See issue 1/86
- 2-5 **Int Symp on Molecular Luminescence and Photophysics** Toruń, Poland See issue 11/85
- 2-6 **6th Symp Fed of Acoustical Soc of Eur** Sopron, Hungary See issue 11/85
- 3-5 → **Mtg on Stability of Polymers in Electronic Applications** Manchester, UK (Contact N. S. Allen, Chem. Dept., John Dalton Faculty of Tech., Manchester Polytechnic, Chester St., Manchester M1 5GD, England)
- 3-13 **Course and Wksp on Basic and Adv Fusion Plasma Diagnostic Techniques** Varenna, Italy See issue 3/85
- 7-10 **4th Int Conf on Molecular-Beam Epitaxy** York, UK See issue 7/85
- 7-12 **3rd Int Symp on Resonance Ionization Spectroscopy and Its Applications** Swansea, Wales See issue 11/85
- 8-11 **16th Eur Solid-State Device Res Conf** Cambridge, UK See issue 7/84
- 8-12 **7th Int Conf on Hyperfine Interactions** Bangalore, India See issue 11/85
- 8-12 **6th Int Symp on Gas Flow and Chemical Lasers** Jerusalem, Israel See issue 7/85

Savvy Physicists

around the world are discovering Cryomagnetics (CI) exciting new generation of cryo-instruments and magnets. NASA, HUGHES, MIT, LANL, others: how about you?

- * **Superconducting magnets**, large and small - novel designs
- * Liquid helium level indicators, controllers, sensors
- * Power supplies, control systems
- * Complete cryomag systems

We are ready to assist you with a design specific to your needs.



CI's New Model 24

- Most advanced level meter available today
- μ P-based sample-and-hold
- Digital read-out of helium level in % or cm
- Display of time-to-next-sample
- Alarm relay
- Computer accessibility

Coming Soon!...

IEEE-488 CRYO-Interfaces

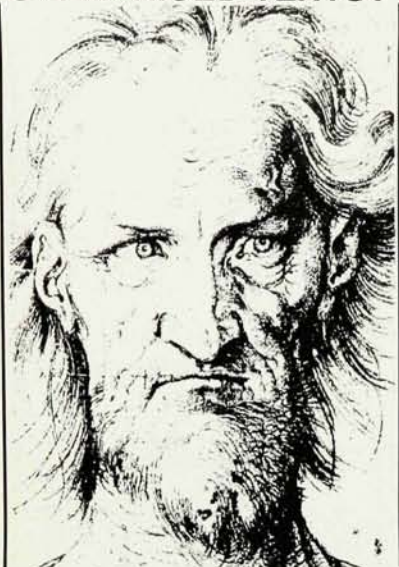
Please call or write for more info or to discuss your needs...
(616) 482-9861
Telex 883 945



CRYOMAGNETICS, INC.
P.O. BOX 548, OAK RIDGE, TN 37831

INNOVATION AND EXCELLENCE IN CRYOMAGNETICS

FED UP WITH OVERPRICED TEXTS?



SO WERE WE.

Faculty Publishing, Inc. is a publishing and marketing service, organized by professors, to bring quality texts to students at reasonable prices. We are proud to offer the following two books for your consideration. Each is offered at the remarkable price of \$8.95 (in sales of five or more).

QUANTUM PHYSICS by R. G. Winter (William & Mary) The 2nd edition of an undergraduate text in the fundamentals of quantum mechanics. The principles of quantum theory, and particularly its relation to experimental observations, are treated carefully but the book is not overly formal. All of the topics that one would expect to find in a solid one-year course are discussed with thoroughness. These include step and delta function potentials, the H. O., particle exchange, electrons in solids, ang. momentum, WKB, variational, and perturbation methods. Class tested and corrected. (With solutions manual.)

20TH CENTURY PHYSICS by C. Garrod (UC Davis) Designed for a semester course in Modern Physics. Special Relativity is done in unusual depth. Basic quantum theory and its applications to atomic, molecular, nuclear, solid-state, and high-energy physics are covered at an appropriate level. (With solutions manual.)

For a review copy, send the following form to
FACULTY PUBLISHING, INC.
1421 Tulane Dr., Davis, CA 95616
(Tele: 916-756-1232)

PLEASE SEND ME:

- [] A REVIEW COPY OF QUANTUM PHYSICS BY R. G. WINTER. I AM ENCLOSING \$3.50.**
- [] A REVIEW COPY OF 20TH CENT. PHYSICS BY C. GARROD. I AM ENCLOSING \$3.50**
- [] INFO. ABOUT FACULTY PUBLISHING, INC.

NAME & ADDRESS

**Sorry about charging for review copies but it's the only way that we can keep prices low.

Circle number 69 on Reader Service Card

- 10-12 **7th Int Conf on Ternary and Multinary Compounds** Snowmass, CO *See issue 1/86*
- 13-16 **39th Ann Conf on Eng in Medicine and Bio** Baltimore, MD (Contact S. P. Leone [Tel. 202-857-1199] Ste. 700, 1101 Connecticut Ave. N.W., Washington, DC 20036) [15 Apr. 86]
- 14-17 **Joint UVSG-CORM Conf on Spectrometry** Oxford, England (Contact K. D. Mielenz, B306 Metrology Bldg., NBS, Gaithersburg, MD 20899)
- 15-17 **Carbon Fibers Conf** Univ. of Salford, UK *See issue 7/85*
- 22-25 **12th Int Symp on Discharges and Electrical Insulation in Vacuum** Shresh, Israel *See issue 11/85*
- 22-25 **1st World Cong on Computational Mechanics** Austin, TX *See issue 11/85*
- 22-25 **12th Eur Conf on Optical Communication** Barcelona, Spain [OSA] (Contact OSA, 1816 Jefferson Pl. N.W., Washington, DC 20036) [15 Apr. 86] *note changed date*
- 28-1 **13th Int Symp on Gallium Arsenide and Related Compounds** Las Vegas, NV (Contact C. M. Wolfe, Washington Univ., Box 1127, St. Louis, MO 63130) *note changed location*
- 28-3 **1986 Applied Superconductivity Conf** Baltimore, MD *See issue 11/85*

OCTOBER 1986

- 7-9 **Int Conf on Optical-Fiber Sensors** Tokyo, Japan *See issue 1/86*
- 9-11 **Mtg APS Div of Nuclear Phys** Vancouver, BC *See issue 1/86*
- 13-17 **Banff Conf on Quantum Fluids and Solids** Banff, AB *See issue 11/85*
- 14-17 **10th IEEE Int Semiconductor Laser Conf** Kanazawa, Japan *See issue 1/86*
- 18-23 **Ann Mtg S of R** Tulsa, OK *See issue 1/86*
- 19-24 **OSA Ann Mtg** Seattle, WA *See issue 1/86*
- 20-26 **11th Int Conf on Infrared and Millimeter Waves** Pisa, Italy (Contact M. Inguscio [Tel. 39-50-45222] Dipartimento di Fisica dell'Università di Pisa, Piazza Torricelli 2, I 56100 Pisa, Italy)
- 27-31 **33rd AVS Nat Vacuum Symp, 10th Int Vacuum Cong, 6th Int Conf on Solid Surfaces** Baltimore, MD (Contact M. Churchill, AVS [Tel. 212-661-9404] 335 E. 45th St., New York, NY 10017) *note corrected entry*
- 28-1 **Int Symp on Phys and Chem of Small Clusters** Richmond, VA (Contact P. Jena [Tel. 804-247-1313] Phys. Dept., Virginia Commonwealth Univ., 1020 W. Main St., Richmond, VA 23284-1)

NOVEMBER 1986

- 3-5 **Symp on Optical Materials for High-Power Lasers** Boulder, CO

- [Amer. Soc. for Testing and Materials, USAF, Office of Naval Res., DARPA, DOE, NBS] (Contact A. H. Guenther, Air Force Weapons Lab., CCN, Kirtland AFB, NM 87117-6008) [18 Aug. 86]
- 3-7 **APS Div Plasma Phys Mtg** Baltimore, MD *See issue 11/85*
- 6-8 **Mtg of Texas Sec AAPT, Texas Sec APS and SPS Zone 10** Nacogdoches, TX *See issue 1/86*
- 10-12 **9th Int Conf on Application of Accelerators in Res and Industry** Denton, TX *See issue 11/85*
- 17-21 **9th Int Conf on Magnetohydrodynamic Electrical Power Generation** Tsukuba, Ibaraki, Japan (Contact W. D. Jackson, HMJ Corp., P.O. Box 15128, Chevy Chase, MD 20815)
- 18-20 **4th Int Conf on Quantitative Surface Analysis** Teddington, UK *See issue 11/85*
- 20-22 **Mtg APS Southeastern Sec** Williamsburg, VA *See issue 1/86*
- 23-25 **Mtg APS Div of Fluid Dynamics** Columbus, OH *See issue 1/86*
- 30-5 **Gen Mtg AAPM and Radiological Soc N Amer** Chicago, IL *See issue 1/86*

DECEMBER 1986

- 1-5 **MRS Fall Mtg** Boston, MA *See issue 1/86*
- 2-5 **6th Eur Conf on Materials Sci Under Microgravity** Bordeaux, France *See issue 1/86*
- 8-12 **112th ASA Mtg** Anaheim, CA *See issue 3/85*
- 8-12 **AGU Fall Mtg** San Francisco, CA *See issue 1/86*
- 17-19 **Ann Solid State Phys Conf 1986** London, UK *See issue 3/85*

JANUARY 1987

- 4-8 **169th Mtg AAS** Pasadena, CA *See issue 1/86*
- 11-17 **Conf on Optoelectronics and Laser Applications in Sci and Eng** Los Angeles, CA *See issue 7/85*
- 14-16 **Top Mtg on Picosecond and Optoelectronics** Lake Tahoe, NV *See issue 1/86*
- 19-22 **Conf on Optical-Fiber Communication, Int Conf on Integrated Optics and Optical-Fiber Communication** Reno, NV *See issue 1/86*
- 26-28 **Top Mtgs on Laser Analytical Spectroscopy and Noninvasive Assessment of Visual System** Lake Tahoe, NV *See issue 1/86*
- 27-31 **Ann Joint Mtg APS and AAPT** San Francisco, CA *See issue 1/86*
- 28-30 **34th Ann Conf Western Spectroscopy Assoc** Pacific Grove, CA *See issue 11/85*

FEBRUARY 1987

- 9-13 **Southwest Conf on Optics** Albuquerque, NM *See issue 1/86*

22-27 **Int Mtg of Adhesion Soc** Williamsburg, VA See issue 11/85

MARCH 1987

- 5-7 **Mtg of Texas Secs AAPT and APS** Abilene, TX See issue 1/86
- 11-13 **Top Mtg on Optical Data Storage** Lake Tahoe, NV See issue 1/86
- 15-20 **Tech Symp Southeast on Optics and Optoelectronics** Orlando, FL See issue 11/85
- 16-18 **Top Mtg on Optical Computing** Lake Tahoe, NV See issue 1/86
- 16-20 **APS March Mtg** New York, NY See issue See issue: 1/86
- 18-20 **Top Mtg on Machine Vision** Lake Tahoe, NV See issue 1/86

APRIL 1987

- 7-11 **Electrostatics '87 Conf** Oxford, UK See issue 1/86
- 20-23 **APS Spring Mtg** Crystal City, VA See issue 1/86
- 20-24 **MRS Spring Mtg** Anaheim, CA See issue 1/86
- 20-24 **11th Int Conf on Particles and Nuclei** Kyoto, Japan See issue 1/86
- 27-1 → **CLEO '87: Conf on Lasers and Electro-optics** Baltimore, MD [OSA, IEEE] (Contact OSA [Tel. 202-223-8130] 1816 Jefferson Pl. N.W., Washington, DC 20036)
- 27-1 → **IQEC '87: Int Quantum Electronics Conf** Baltimore, MD [OSA, IEEE] (Contact OSA [Tel. 202-223-8130] 1816 Jefferson Pl. N.W., Washington, DC 20036)

MAY 1987

- 3-7 **5th Int Symp on Gaseous Dielectrics** Knoxville, TN See issue 1/86
- 11-15 **113th ASA Mtg** Indianapolis, IN See issue 7/84

JUNE 1987

- 14-18 **170th Mtg AAS** Vancouver, BC See issue 1/86
- 24-27 **AAPT Sum Mtg** Bozeman, MT See issue 1/86

JULY 1987

- 13-17 **AAPM Sum Sch** Ann Arbor, MI See issue 1/86
- 19-23 **29th Ann Mtg AAPM** Detroit, MI See issue 1/86
- 26-31 **American Conf on Theoretical Chem** Gull Lake, MN See issue 1/86

AUGUST 1987

- 12-20 **14th Cong and Gen Assembly ACA** Perth, Australia See issue 1/86



KIPP & ZONEN

BB90/91 X-Y RECORDERS

Low Cost Single & Dual Pen X-Y Recorders... designed for fast and accurate pen response.

- Plug-in preamplifier with 16 fixed and variable input ranges 50uV/cm-5V/cm
- Slewing speed up to 140 cm/s
- Acceleration up to 5500 cm/s²
- Pen response
x axis 0.3s fsd
y axis 0.2s fsd
- Electrostatic paper hold-down
- Electronic over-range protection
- LED over-range indicators
- Polarity reversal switch
- Optional time base module with 18 speed settings
- Optional remote control for pen control and motor drive
- Optional zero suppression
- Disposable fiber tip pen system
- Use 11 x 17 or 8 1/2 x 11 paper
- For Lab or OEM use



KIPP & ZONEN

div. of ENRAF-NONIUS

390 Central Ave., Bohemia, NY 11716 / 516-589-2885 / Telex: 96-0250

Circle number 70 on Reader Service Card



KIPP & ZONEN

low profile multi channel recorders

Critical Features:

- BD 100: 1-3 Channels
- BD 101: 1-6 Channels
- 10 Spans: 1mV-1V fsd (25cm) standard (1mV-10V Option)
- 16 Speeds
- Over-range Protection

Optional Features:

- Universal module for thermocouples and Pt-100
- Zero Suppression
- Limit Switches
- Event Marker
- Remote Control of Chart Drive and Pen Lift

BD 100

BD 101

KIPP & ZONEN

OEM Models Available

div. of ENRAF-NONIUS

390 Central Ave., Bohemia, NY 11716 / 516-589-2885 / Telex: 96-0250

Circle number 71 on Reader Service Card