

People and things

On people

Robin Marshall of the UK Rutherford Appleton Laboratory has been appointed Professor of Experimental Physics at the University of Manchester, taking up his duties in April. Since 1978, he has led the RAL team involved in the JADE and H1 experiments at DESY, Hamburg. Manchester collaborates in H1 as well as the Opal experiment at CERN, and has begun preparations for the proposed LHC collider at CERN.

New Award

The new Faraday Cup award, sponsored by Bergoz and worth \$5000, for innovative beam instrumentation will henceforth be presented at the annual Accelerator Instrumentation Workshop. Nominations to Jim Hinkson or Greg Stover, Lawrence Berkeley Lab, MS 46-125, 1 Cyclotron Road, Berkeley, CA 94720.



T.G. Pickavance 1915-1991

T.G. ('Gerry') Pickavance, who died on 12 November, was one of the enthusiasts who worked hard to ensure that the United Kingdom became a Member State of CERN, although his relative youth at the time prevents him from being thought of as one of its founding fathers. He went on to play important roles in CERN affairs: advisor to the cyclotron project and Chairman of the European Committee for Future Accelerators (ECFA) in 1970. For many years he was scientific advisor to the UK CERN delegation.

His particle physics research career began at Liverpool under James Chadwick. At the end of World War II he moved to the Atomic Energy Research Establishment at Harwell, under John Cockcroft, as Head of the Cyclotron Group. Pickavance would almost certainly have moved to a senior post at CERN if Cockcroft had been prepared to release him. Instead he took charge at Harwell of a 600 MeV proton linear accelerator project. This ambitious machine was never completed, but served as a basis for the design of the 50 MeV injector for the CERN PS.

In 1957 Pickavance became the first Director of the UK's Rutherford Laboratory, charged with the task of building the 7 GeV Nimrod proton

Franz Plasil of Oak Ridge Laboratory, Tennessee, chaired the Organizing Committee of the recent 'Quark Matter '91' meeting, the ninth International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, held in Gatlinburg, Tennessee, from 11-15 November. Dedicated to the memory of Leon Van Hove, the meeting attracted about 50 per cent more physicists than originally planned, reflecting the current interest in the interface between particle and nuclear physics. Even just at CERN, this research attracts more than 500 scientists.

T.G. ('Gerry') Pickavance 1915-1991



synchrotron and creating a Laboratory for visiting scientists. In 1969, he left the Rutherford Laboratory to become Director of Nuclear Physics for the UK Science Research Council.

Sadly the physics community was soon deprived of his talents. On a trip to a conference in Bologna he became ill with pneumonia, followed by a stroke which left him partially paralysed and seriously impaired his speech. His wife and family have always spoken with gratitude of Antonino Zichichi's efforts in securing for him the best possible medical treatment in Bologna, which may well have saved his life. Although forced to retire in 1972 at the age of 57, Pickavance always retained his enthusiasm for physics and, right up to his death, held court at his UK home for many friends.

He was awarded the order of Commander of the British Empire (CBE), elected Fellow of the Royal Society and a Visiting Fellow of St. Cross College, Oxford. He received an honorary doctorate from London's City University and the Glazebrook Medal and Prize from the UK Institute of Physics.

From Godfrey Stafford



SSC Laboratory

Superconducting Super Collider Laboratory

We're about to change the way we look at the universe.

The SSCL, located just south of Dallas, Texas, is rapidly moving to become the premier center of particle physics research in the world. Major activities at the SSCL include design and construction of the 20 TeV proton collider and its associated complex of accelerators and detection apparatus as well as research in particle physics.

As part of the SSC Laboratory team of scientists, engineers and computer scientists, you'll be doing work which will have incalculable consequences for the future of science and technology, as well as the growth of human knowledge.

ASSOCIATE DIRECTOR: COMPUTING DIVISION

We seek an exceptional scientist with management experience to provide strong leadership as Division Head of the newly established Computing Division. The Computing Division, at the forefront of scientific computing hardware and software, provides leadership, guidance and planning for scientific computing policy and environments; develops, operates and maintains central computing resources, support operations of distributed facilities and establishes/maintains the laboratory computer networking system. The Division Head should have experience with currently available mainframes & workstations, as well as UNIX, VMS and PC operation systems. Additionally this Division will do research and development in computing methodology, techniques and software relevant to the anticipated needs of its users. Division staff will be the contact points for joint development projects with industry and university groups. The Division Head, reporting to the Laboratory Director, will manage and lead a current staff of 75 people which is expected to increase to 100+ over time.

The Superconducting Super Collider invites applications from outstanding candidates with an advanced degree, preferably a PhD in Physics or Computer Science, who have had significant experience with computing as practiced in a particle physics research environment, along with management and supervisory experience.

To Apply: Send Complete Resume and Salary History

Fax: 214-708-5592

Mail: SSC Laboratory
2550 Beckleymeade Ave.
MS-2050 / 3438-LB
Dallas, Texas 75237

An Equal Opportunity/Affirmative Action Employer.
As always the SSCL strongly encourages minorities and female candidates to apply.

UNIVERSITY OF COPENHAGEN

The Niels Bohr Institute

Applications are invited for a Chair (Professorship) in **Experimental Physics** at the Niels Bohr Institute, to commence November 1, 1992.

The professor will be appointed as a Civil Servant under the Ministry of Education and Research. The annual salary will amount to approximately 360.000 Danish kroner.

The chosen candidate is expected to take part in the experimental research activities of the Niels Bohr Institute, - either in low- and medium-energy nuclear physics in connection with the Tandem Accelerator Laboratory and accelerators abroad, - or in experimental high-energy particle physics in connection with the Institute activities at CERN.

The professor will also participate in the university teaching at all levels. The language of instruction is Danish, but English will be accepted for the first two years of the appointment. In the evaluation of the applicant, importance will also be given to teaching experience and qualifications.

Information about research plans, facilities and staff at the Niels Bohr Institute may be obtained from the Director, Blegdamsvej 17, DK 2100 Copenhagen Ø, Denmark.

Applications should include a *curriculum vitae*, a complete list of publications, copies of scientific publications and further documentation which the applicant wishes to be considered, and a brief outline of proposed research. Information concerning the applicant's teaching experience, to be evaluated by the Study Board, should also be enclosed. The material should be submitted in triplicate together with a complete list of the material.

After evaluation of the applicants' qualifications by a specially appointed Evaluation Committee, the Committee's report will be sent to all applicants.

Applications are to be addressed to Her Majesty the Queen of Denmark, and sent to the Faculty of Natural Sciences, Panum Institutet, Blegdamsvej 3, DK - 2200 Copenhagen N, Denmark.

The closing date for receipt of applications is April 1st, 1992.

Research Associate Experimental High Energy Physics

The J.W. Goethe Universität Frankfurt/Main, Institut für Kernphysik, is involved in the CERN Heavy Ion Program and is seeking a

Research Associate

to take part in the preparation of new experiments and in the analysis of the ongoing experimental work (NA35, NA49).

A Ph.D. in experimental physics and experience in the field of ultrarelativistic nucleus-nucleus collisions are requested.

The successful applicant will be offered an indefinite contract. The salary is defined by the German BAT regulations.

Applicants are requested to submit within 3 weeks of publication date curriculum vitae, list of publications, statements of research interests and names of three references to

Prof. Dr. R. Stock
Institut für Kernphysik
Aug. Euler Str. 6
D - 6000 Frankfurt/Main 90
Tel. 49-697984240

Theodorus J. Sluyters

Theodorus J. Sluyters, who retired at the end of June after 27 years at Brookhaven, died of a heart attack on 17 November while vacationing in his native Holland. He was 63 years old.

Sluyters had many friends in Laboratories all over the world. He earned his physics PhD at Amsterdam in 1958. After working at the F.O.M.-Laboratory in Amsterdam, and then at CERN, he joined Brookhaven in 1964. In 1971-72 he was visiting professor at the KEK Laboratory in Japan. Sluyters was a member of the Dutch Physical Society, the British Interplanetary Society, and the American Physical Society.

In the early 1970s Sluyters and his colleagues at Brookhaven began working on the development of ion sources. Pioneer work on negative hydrogen ion (H^-) sources suggested a superior injection technique for high energy accelerators. This programme soon showed that negative ions of hydrogen isotopes can also have applications for plasma heating of fusion devices. Negative ion injection has since become a standard technique at proton accelerators, making possible, for example, a doubling of the Brookhaven Alternating Gradient Synchrotron (AGS) beam intensity. Later the group built a spin-polarized H^- source for experiments with polarized protons at the AGS.

Sluyters was a forceful organizer of people and events. In 1971 he organized the first Symposium on Ion Sources and Formation of Ion Beams, and from 1977 he and his colleagues have sponsored a broader Symposium, held every three years at Brookhaven, on the Production and Neutralization of Negative Ions and Beams; these meetings have become the most important on the subject worldwide.



In 1983 Sluyters became deputy head, and in 1986 head of the AGS Accelerator Division, overseeing the longterm upgrade programme to prepare the AGS for higher intensity operation and heavy ion operation with the new Booster. From 1990 until his retirement he was Deputy Chairman of the AGS Department.

With unbounded energy and enthusiasm, Sluyters was a generous colleague and friend. He chose early retirement with extensive plans to enjoy many years of travelling. His sudden death left his many friends shocked, with a deep feeling of loss. He was buried in Amsterdam on 21 November.

His colleagues

Sakharov Remembered

'Sakharov Remembered – A Tribute by Friends and Colleagues' is the title of a remarkable volume about a remarkable man. Edited by Sidney D. Drell and Sergei P. Kapitza and published by the American Institute of Physics, New York, in cooperation with the Physical Society of the

USSR, it covers both the life and the contributions to science of a man who was looked on by many as a living saint.

Some of the material has already been published – in Moscow in a special issue of 'Priroda' ('Nature') and in the US in 'Physics Today'. These essays are supplemented by other contributions, by many poignant photographs, and by a panel discussion ('On Free Thought') organized in Moscow by 'Priroda'.

The book is a worthy memorial to a man who 'was a moment in the conscience of humanity'.

Books

'Elementary Particles and the Universe', edited by John H. Schwarz and published by Cambridge University Press (ISBN 0 521 41253 6, hardback) includes essays from a two day-symposium at Caltech in 1989 marking the 60th birthday of polymath Murray Gell-Mann, with additional contributions from friends and colleagues.

Meetings

The XV International Conference on High Energy Accelerators will be held in Hamburg, Germany, from 20-24 July, organized by DESY and sponsored by IUPAP. Further information from HEACC 92 Conference Office, DESY, Notkestrasse 85, 2000 Hamburg 52, Germany, fax +49 40 8969-7305, e-mail HEAC92 at DHHDESY3.BITNET

The Third International Symposium on the History of Particle Physics will be held at the Stanford Linear Accelerator Center (SLAC) from 24-27 June. Co-sponsored by SLAC and

FACULTY POSITION EXPERIMENTAL HIGH ENERGY PHYSICS The Ohio State University

The Department of Physics invites applications for a tenure track faculty opening in Experimental High Energy Physics. We are looking for a person with a strong record and outstanding promise as a researcher, who will also be a good teacher. Present research interests of our group of nine faculty include studies of heavy quarks and tau leptons, neutrino oscillations, high energy electron-proton collisions, and detector development for the SSC. Experiments are now running or staging at CESR, Fermilab, and HERA.

Applicants should send their curriculum vitae and the names of at least three references to :

Richard Kass, Search Committee Chair
Department of Physics
The Ohio State University
Columbus, OH 43210

Applicants will be screened beginning March 1, 1992 and will be accepted until the position is filled. Pending final administrative approval, the department hopes to fill this vacancy by Autumn, 1992. The Ohio State University is an equal opportunity and affirmative action employer.

UNIVERSITY OF CALIFORNIA, RIVERSIDE Faculty Position in Experimental High Energy Physics

The Department of Physics at the University of California, Riverside, expects to make a faculty appointment in the area of experimental high energy physics on or after July 1, 1992. This tenure-track appointment will be at the level of Assistant Professor. The department is seeking candidates with outstanding research records and strong commitment to teaching. The individual appointed will be expected to join, for the near term, the ongoing Riverside research program in high energy proton-proton and proton-antiproton collisions. Please send a resume and arrange to have at least three letters of recommendation sent to

Chair, Search Committee
Experimental High Energy Physics
Department of Physics
University of California, Riverside
Riverside, California 92521

The deadline for receiving applications will be February 29, 1992. Any applications received after this date will be considered only if an appointment is not made from the original pool.

The University of California, Riverside, is an Equal Opportunity, Affirmative Action Employer. Minority and women candidates are encouraged to apply.

UTRECHT UNIVERSITY

The Department of Physics and Astronomy of the University of Utrecht (Netherlands) has an opening in the subatomic physics group for a

Professor of Experimental Physics

[full time vac.nr. 566/63065]

The group with a staff of about 40 (including Ph.D. students and technicians) and about 15 undergraduate students performs research in the field of nuclear physics and high-energy physics with an emphasis on the thematic overlap of both disciplines, the subatomic physics. Electron and hadron experiments are carried out at national (Amsterdam, Groningen) and international (Geneva, Caen, Bonn) facilities.

The applicant is expected to play a leading role in the research programme and to take an active part in the teaching of subatomic physics, the general teaching programme of the faculty as well as the management tasks. We are looking for an experimental physicist with a broad knowledge and proven originality in the fields of experimental nuclear physics and/or high-energy physics, particularly in subatomic physics. The candidate should have experience and quality in scientific teaching (which, after two years, should also be done in Dutch). Furthermore good management abilities are required. The annual salary amounts to approximately Hfl. 100,000.— to Hfl. 150,000.— depending on experience.

More information may be obtained from Prof. R. Kamermans, P.O. Box 80.000, 3508 TA Utrecht, tel. +31 30 532517/531492. Those wishing to recommend candidates are also invited to contact him.

Applications with a curriculum vitae, a list of publications and the names of three referees, should be sent to the Dean of the Department * Prof. dr. H.P. Hooymayers * Princetonplein 5 * P.O. Box 80.000 * 3508 TA Utrecht, within 4 weeks after appearance of this announcement.



UNIVERSITE CATHOLIQUE DE LOUVAIN, BELGIUM Department of Physics

FACULTY POSITION IN EXPERIMENTAL PHYSICS

The Rector of the Catholic University of Louvain (UCL) in Louvain-la-Neuve, Belgium, invites applications for a full-time academic position beginning in fall of 1992. Applicants will have a Ph.D. or equivalent and postdoctoral experience. The appointed person is expected to teach physics courses in the university and play a leading role in both shaping and implementing the research program of the Institute for Nuclear Physics of UCL.

Presently this program includes experiments pertaining to the following domains of investigation :

- physics with radioactive ion beams (e.g. study of nuclear reactions of astrophysical interest) ;
- nuclear reactions induced by heavy ions ;
- fundamental interactions and symmetries ;
- high energy physics : neutrino induced reaction ; neutrino oscillations ;
- nuclear physics applied to medicine and radiobiology ;
- solid state physics studies using nuclear techniques.

At the beginning, only a good knowledge of English is required but, as the candidate is expected to teach physics in French, he should acquire a reasonable command of the language within two years. Rank and salary will depend upon qualification and experience. Candidates should send a curriculum vitae, a research program (short and long term), three letters of recommendation and a copy of their five most representative publications to Professor P. Macq, Rector of UCL, Halles Universitaires, Place de l'Université, 1, B-1348 Louvain-la-Neuve, Belgium. Closing date for applications is March 31, 1992.

For further information, especially about the current research programs of the Institute, write or call Professor J.-P. Antoine, Chairman of the Department of Physics, Chemin du Cyclotron, 2, B-1348 Louvain-la-Neuve, Belgium, Tel. +32.10.47.32.94, Fax +32.10.47.24.14.

Fermilab, the meeting is organized around the central theme of 'The Rise of the Standard Model' of particle physics from 1964-79. Topics include the growth of large international collaborations, the transition from fixed target to colliding beam work, the unification of the weak and electromagnetic forces, and the development of the quark model. Speakers include physicists, science historians and philosophers, and sociologists. Meeting chairpersons are Lillian Hoddeson and Michael Riordan. Further information from Nina Adelman Stolar, SLAC Public Affairs Office, MS 70, PO Box 4349, Stanford, California 94309, USA. Phone 415-926-2282, bitnet nina at slacvm or fax 415-926-4999 or telex 3722871 stanuniv.

The Seventh International Symposium on Very High Energy Cosmic Ray Interactions will be held at the University of Michigan in Ann Arbor, Michigan during the week 21-27 June, 1992. These symposia, held biennially over the past decade, focus on the nature of the interactions of elementary particles and nuclei at the highest attainable energies as studied with cosmic rays and at high-energy particle accelerators. Lawrence W. Jones of Michigan is chairman of the Local Organizing Committee. Information may be obtained from: ISVHECRI, University of Michigan, Department of Conferences and Seminars, 541 Thompson Street, room 112; Ann Arbor, Michigan, 48109-1360, USA, Telefax: 313-764-1557, E-mail: David H. Frankel at ub.cc.umich.edu.

A NATO Advanced Study Institute will be held from 12-25 July in Il Ciocco near Lucca (Tuscany), Italy, on Particle Production in Highly

Excited Matter, directed by G. Bellettini, H.H. Gutbrod, and J. Rafelski. It is intended for young scientists, such as final-year graduate students and postdocs, and will focus on the study of highly excited nuclear matter and quark-gluon plasma formation by observation of particle production and emission. All enquiries to: Hans H. Gutbrod, CERN, PPE-Division, 1211 Geneva 23, Switzerland, e-mail gutbrod at cernvax.bitnet fax: +41 22 782 4897. Students eligible for a NATO fellowship should send a short one-page CV and a letter of recommendation. Deadline for applications is 1 March.

The 10th International Symposium on High Energy Spin Physics will be held in Nagoya from 9-14 November. Information from the Symposium Secretariat, Department of Physics, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464, Japan. Fax +52-783-0365, e-mail kekvox::spin92 or spin92 at jpnkekvx

1992 CERN School of Physics

The next CERN School of Physics will take place from 13-26 September in Monschau (near Aachen), Germany. The topics covered will include Field Theory, Electroweak Interactions, QCD, Beyond the Standard Model, CP Violation and the Experimental Higgs Search; with additional lectures on electron-positron machines and on LEP results. Further information from Miss S.M. Tracy, CERN School of Physics, CERN - DG-A, 1211 Geneva 23, Switzerland, e-mail tracy at cernvm.cern.ch Telex: 419000 cer ch Telephone: + 41 22 767 27 24, Telefax: + 41 22 782 30 11. Closing date for applications is 30 March.

CERN Courier changes printer

This edition of the CERN Courier was printed by Lannoo Printers, Tielt, Belgium, breaking with a 12-year tradition dating from 1979, when the printing has been handled (apart from a short break in 1985) by Presses Centrales, Lausanne, Switzerland. As well as their continual reliability, quality and attention to detail, Presses Centrales also expertly guided the journal through the rapidly developing technology of publishing and printing in the 1980s.

Back in 1979 all text was prepared as typescript, often heavily annotated, and sent to the printer by mail. This was manually typeset (rekeyboarded) and the results returned as galley proofs for checking and dummy page makeup. A second production stage involved checking the subsequent page proofs. Repeated keyboarding was onerous and error-prone, and called for vigilant reading.

With the advent of electronic mail, CERN Courier material increasingly became available as computer files for editing on the screen. Soon these spellchecked files could also be marked-up on the screen by the Editor and forwarded to the printer by modem, with a dummy page layout produced by desk-top publishing.

The CERN Courier's easy access to computer systems has also acted as a catalyst for the printer, hastening the introduction of some new techniques. As well as cutting out drudgery and improving turnaround, the net result has decreased the ever-present risk of error.

The CERN Courier thanks Presses Centrales Lausanne for their courtesy, skill, enthusiasm and reliability.

ANNUAL REVIEW OF NUCLEAR AND PARTICLE SCIENCE, Volume 41

J. D. Jackson • Harry E. Gove • Vera Lüth • Editors

Price: \$55.00 USA / \$60.00 other countries

Postpaid • ISBN 0-8243-1541-3 • 558 pages

CONTENTS

- **Decays of B Mesons**, K. Berkelman and S. L. Stone
- **Subthreshold Particle Production in Heavy-Ion Collisions**, U. Mosel
- **Tests of the Electroweak Theory at the Z Resonance**, H. Burkhardt and J. Steinberger
- **Hadron Collider Physics**, M. D. Shapiro and J. L. Siegrist
- **Advances in Hadron Calorimetry**, R. Wigmans
- **Isobar Excitations in Nuclei**, C. Gaarde
- **Low Energy Antiproton Physics**, C. Amsler and F. Myhrer
- **Searches for New Macroscopic Forces**, E. G. Adelberger, B. R. Heckel, C. W. Stubbs, and W. F. Rogers
- **Superdeformed Nuclei**, R. V. F. Janssens and T. L. Khoo
- **Storage Rings for Nuclear Physics**, R. E. Pollock
- **The Stanford Linear Collider**, J. T. Seeman
- **Quasi-Elastic Heavy-Ion Collisions**, K. E. Rehm
- **Quantitative Tests of the Standard Model of Electroweak Interactions**, W. J. Marciano
- **Charm Baryons: Theory and Experiment**, J. G. Körner and H. W. Siebert
- **Indexes**

Available through booksellers and subscription agents worldwide or direct from . . .



ANNUAL REVIEWS INC.

a nonprofit scientific publisher

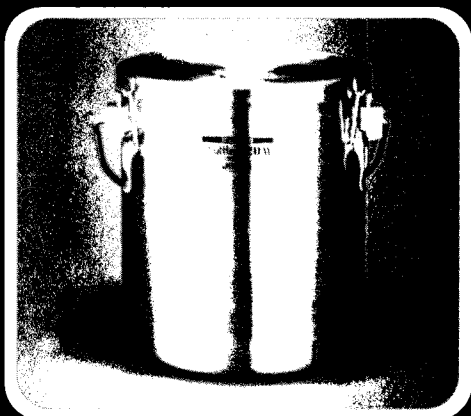
4139 El Camino Way • P. O. Box 10139
Palo Alto, CA 94303-0897 • USA

32 Circle advertisement number on reader service form

all stainless steel THERMOS CONTAINERS

8 - 10 - 12 - 14 - 16 - 18 l

for experiments, storage, transportation



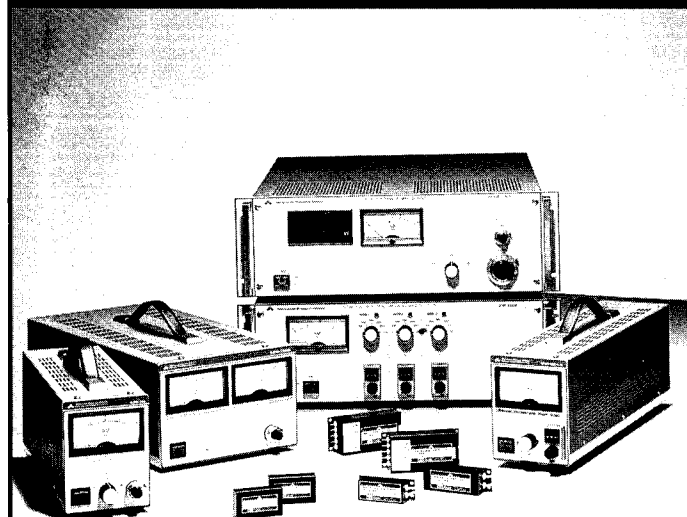
double wall stainless steel * permanent high vacuum insulation * tight closing insulated cover * temperature range 70 to 470 K *

European distributor: Dr. Ing. N. Eber & Co.,
CH-8103 Unterengstringen, Switzerland
Tel: (01) 750 55 72 - Fax: (01) 750 55 81

18 Circle advertisement number on reader service form

High Voltage Power Supplies

*Optimum for
Photomultiplier and
MCP Applications*



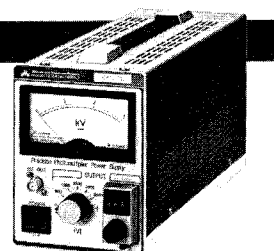
HPM Series

- High Performance, Regulated DC-DC On Board Modules
- Up to 3000Vdc output (from 0V)
- Low ripple, high stability (output ripple 80mVp-p Typical)
- Small size (60L+40W+20Hmm)
- A wide range of input voltage (+11 to -16Vdc)



HJPM Series

- Bench-Top type power supplies
- Short circuit and Arc protected
- Up to 5kVdc output
- Reversible Polarity Available
- More precision SP models (output ripple 10mVp-p Typical)



Matsusada Precision Devices Inc.

European Representative

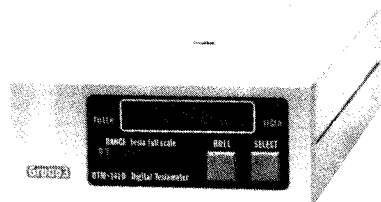
Zettachring 6, D-7000 Stuttgart 80, Germany
Tel: (0711) 7287143 Fax: (0711) 7289631

Head Office

745 Aojicho Kusatsu Shiga 525, Japan
Tel: 81-775-62-3111 Fax: 81-775-65-1211

31 Circle advertisement number on reader service form

Precision Magnetic Field Measurement



- Digital Hall Effect Teslameter
- Overall precision of 0.01%
- Temperature coefficient < 10 ppm/°C
- Field ranges from 0.03 to 3 T
- RS-232C or IEEE488 interface options
- Miniature probes for field mapping
- Precision, versatility and cost-effectiveness unequalled by any other manufacturer

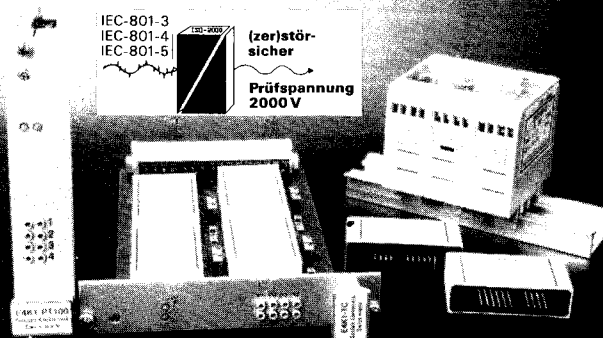


DANFYSIK A/S · Møllehaven 31 · DK-4040 Jyllinge · Denmark
Tel.: +45 46 78 81 50 · Fax: +45 46 73 15 51
In USA: GMW Associates · Tel.: (415) 368-4884 · Fax: (415) 368-0816

21 Circle advertisement number on reader service form

Isolated Transmitter

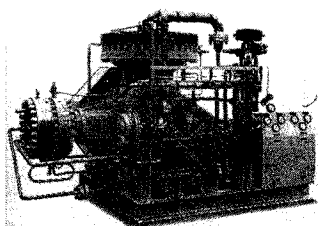
- Transmitter and Isolator, newest generation
- for PT100, thermocouple, CLTS, resistant,
- voltage, current and custom design
- Output 4/20 mA current loop (2-wire)
- or voltage f.e. 0/2, -5/+5, 0/10 V, 10 mV/K
- Accuracy from 0,05 % to 0,4 %
- Swiss made, 5 years Warranty
- conform with IEC-801-3, -4, -5
- EMC proof, newest EC standard



**STEINER
TECHNIK**

Rietacker 9
CH-9548 Matzingen
Tel. 054 53 12 12
Fax 054 53 12 83

42 Circle advertisement number on reader service form



Burton Corblin-Membrankompressoren

verdichten hermetisch alle Gase

Keine Umweltbelastung, absolute
Reinhaltung der Gase. Ein- und mehr-
stufig bis 2500 bar. In vielen Bauarten
und Leistungsgrößen.

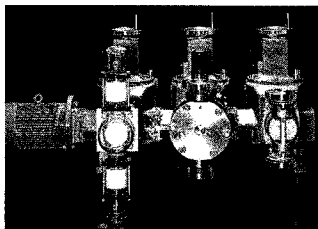
Generalvertretung in der Schweiz.

Fachberatung · Service · Ersatzteilhaltung

Missionsstrasse 22, CH-4003 Basel

Tel. 061/26198 00, Fax 061/261 25 47

HERBERT OTT AG



LEWA-Dosierpumpen

Die ganze Spannweite der Flüssigkeitsdosierung

- Laborpumpen
- modular aufgebaute Dosierpumpen
- Triplex-Prozess-Membranpumpen
- kundenspezifische Dosiersysteme

Generalvertretung in der Schweiz.

Fachberatung · Service · Ersatzteilhaltung

Missionsstrasse 22, CH-4003 Basel

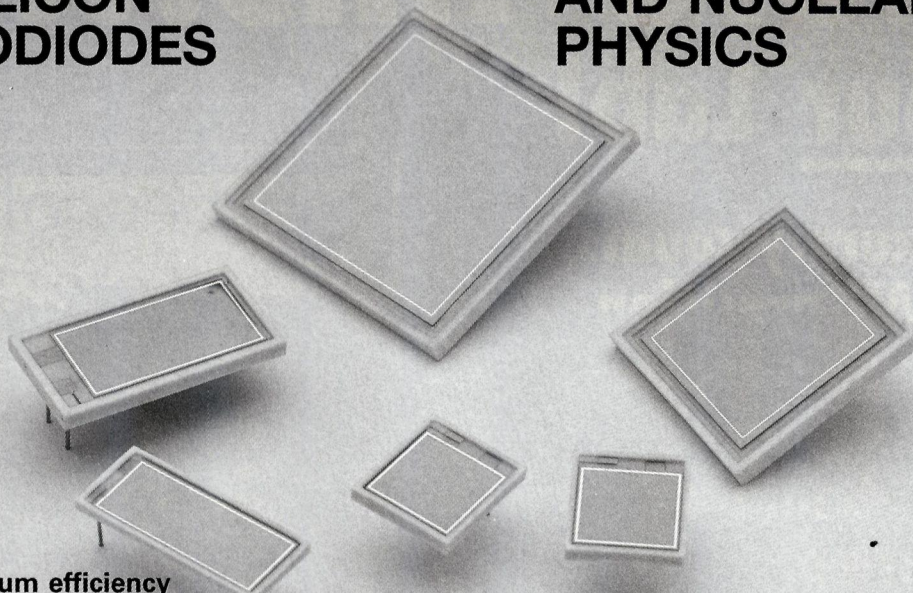
Tel. 061/26198 00, Fax 061/261 25 47

HERBERT OTT AG

44 Circle advertisement number on reader service form

LARGE-AREA PIN SILICON PHOTODIODES

FOR HIGH ENERGY AND NUCLEAR PHYSICS

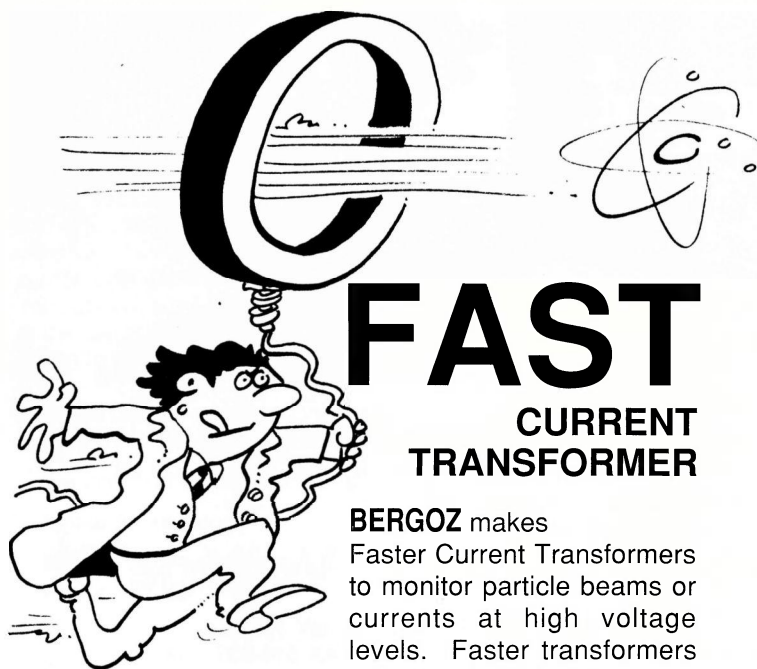


- High quantum efficiency
- Good energy resolution
- Windowless Types Available
- Large sensitive area :
10 x 10 mm, 10 x 20 mm, 30 x 30 mm, etc.
- 200, 300, 500 μ m Wafer Thickness Types

HAMAMATSU PHOTONICS FRANCE

Z.A. ORLYTECH - BAT. 523
3, allée du C^t Mouchotte - Paray-Vieilleposte
91781 WISSOUS Cedex
Tél. : 33.1.49.75.56.80 - Fax : 33.1.49.75.56.87
Tlx : HPF 262 082

28 Circle advertisement number on reader service form



FAST CURRENT TRANSFORMER

BERGOZ makes
Faster Current Transformers
to monitor particle beams or
currents at high voltage
levels. Faster transformers
are made by BERGOZ using
specially annealed Cobalt

alloys. Standard models have 178mm inner diameter,
risetime-falltime < 1ns and 1.25 V/A sensitivity. Special
models can be as large as 300 mm, or very small. Other
models can integrate picosecond risetime primary pulses
with less than 1% ratio error.

BERGOZ Crozet, France, Fax 50.41.01.99 • Tel 50.41.00.89
REPIC Tokyo, Japan, Fax 03-3918-5741 • Tel 03-3918-5110
GMW Redwood City, CA, Fax 415-368-0816 • Tel 415-368-4884

17 Circle advertisement number on reader service form



Free 1992 catalog of instrumentation products for PCs, workstations,
and more. Features IEEE-488.2 interfaces and software, plug-in data
acquisition boards, VXIbus controllers, DSP hardware and software,
and signal conditioning accessories. Application software for complete
acquisition, analysis, and presentation of data, including graphical user
interfaces. Application tutorials and training classes also detailed.

CALL (512) 794 • 0100 or
(800) 433 • 3488 (U.S. and Canada)
Fax: (512) 794-8411

© Copyright 1991 National Instruments Corporation.
All rights reserved.

**NATIONAL
INSTRUMENTS®**
The Software is the Instrument®

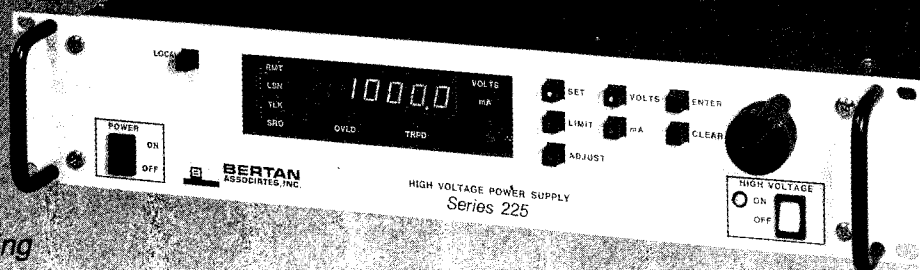
6504 Bridge Point Parkway
Austin, TX 78730-5039

34 Circle advertisement number on reader service form

Picture this... in your Lab!

**Where accuracy counts,
use BERTAN precision
high voltage supplies
to power detectors,
E-beam, I-beam or
X-ray sources.**

- Continuously adjustable, reversible output voltage to 50kV
- The lowest ripple available: 0.001% P-P
- Outstanding accuracy: 0.1%
- Excellent temperature coefficient: 50 ppm/°C
- Short circuit and arc protected
- Precise remote monitoring



Model	Voltage	Current	Ripple*
205B/225-01R	0 to $\pm$ 1kV	0 to 30mA	10mV
205B/225-03R	0 to $\pm$ 3kV	0 to 10mA	30mV
205B/225-05R	0 to $\pm$ 5kV	0 to 5mA	50mV
205B/225-10R	0 to $\pm$ 10kV	0 to 2.5mA	100mV
205B/225-20R	0 to $\pm$ 20kV	0 to 1mA	500mV
205B/225-30R	0 to $\pm$ 30kV	0 to 0.5mA	1.5V
205B/225-50R	0 to $\pm$ 50kV	0 to 0.3mA	2V

* Measured P-P

Call or write today for complete information
on all Bertan High Voltage Power Supplies.

What you see is what you get with Bertan High Voltage Power Supplies: digital LED readout, selectable for reading output voltage or current.

The Model 205B output is controlled via a front panel precision potentiometer and has remote analog programming and monitoring.

The Model 225 incorporates a microprocessor for front panel control and monitoring plus an IEEE-488 interface for remote operation.

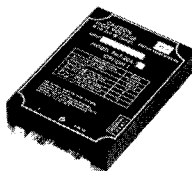
BERTAN High Voltage

121 New South Road • Hicksville, NY 11801
516-433-3110 • TWX 510-221-2144 • FAX 516-935-1766



High Voltage Test Instruments

- Precision Divider Networks
- Electronic Loads



Series PMT Compact Modules

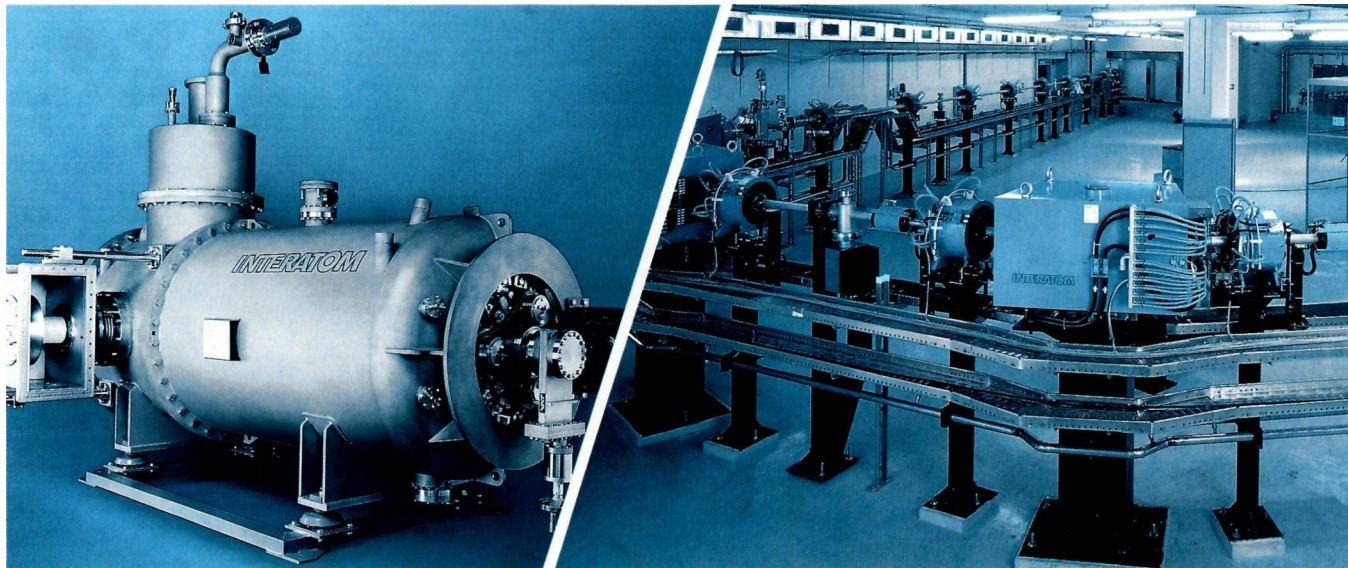
- Regulated DC-DC Converters
- Remote Programming/Monitoring



Models 206B/226 Dedicated ATE and System Applications

33 Circle advertisement number on reader service form

Accelerator and Magnet Technology



500 MHz superconducting accelerator module, INFN/Frascati

Injection beamline for the Cooler Synchrotron COSY, Forschungszentrum Jülich

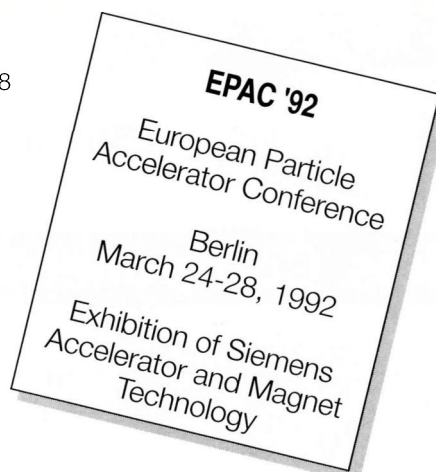
On October 1, 1991, Interatom until then a wholly-owned subsidiary of Siemens AG, was merged into the parent company. For our present and future customers only the name has changed. Your contacts will be the same people at the same place, with the same dedication to meet your requirements.

We offer design, construction, commissioning and services for:

- ☐ Synchrotron radiation sources
- ☐ Linear accelerators
- ☐ Normal and superconducting accelerator cavities
- ☐ Normal and superconducting magnet systems
- ☐ Beam transport lines
- ☐ Vacuum chambers
- ☐ Cryogenic components and systems
- ☐ Beryllium windows

Accelerator and magnet technology from Siemens –
The full range of engineering and manufacturing services

Siemens AG
Accelerator and Magnet Technology
Friedrich-Ebert-Straße
W-5060 Bergisch Gladbach 1
Germany
Telephone +49 22 04 84 22 88
Telefax +49 22 04 84 30 45

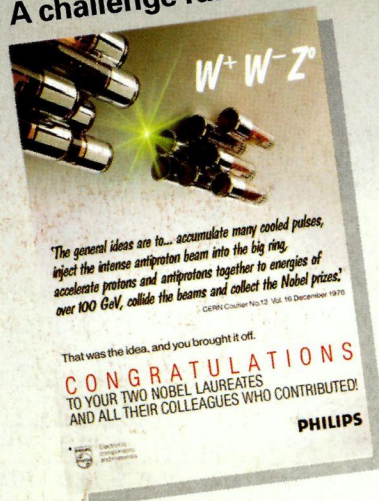


A 96 001-U 01-Z 230-V2-7600

24 Circle advertisement number on reader service form

HIGGS?

A challenge fulfilled



A challenge unfolding

To accumulate many proton pulses, inject two proton beams into the LHC ring in the LEP tunnel, accelerate the protons in twin-aperture superconducting magnets to energies of 8 TeV, collide the beams and collect the Higgs.

We wish CERN every success in launching the Large Hadron Collider enterprise. And for this challenge, as always, count upon our phototube design-in support to help bring it off again.

Still setting the standard

Philips Components



PHILIPS