

People and things

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HERA book

The HERA electron-proton collider soon to be commissioned at the DESY Hamburg Laboratory is the subject of a new book (in German) by DESY staffer Pedro Waloschek.

'Reise ins Innerste der Materie' (Journey into Innermost Matter) published by DVA recounts the building of the 6.3 kilometre collider and explains its scientific goals.

As well as being a distinguished scientist and author, Waloschek has faithfully served as DESY's CERN Courier correspondent since 1979. Since then scarcely a month has gone by without him keeping the CERN Courier, and thereby its 25,000 readers throughout the world, up to date on developments at DESY.

Quark Matter 91

'Quark Matter 91', the Ninth International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, to be held 11-15 November in Gatlinburg, Tennessee, will be dedicated to the memory of Leon Van Hove, Research Director General of CERN 1976-1980 and pioneer in studies of the quark-gluon plasma, who died last year.

As in earlier meetings, the emphasis will be on experimental and theoretical investigations of the production and properties of the long-awaited quark-gluon plasma. Franz Plasil is Chairman of the Organizing Committee. Further information – Quark Matter 91, Building 6003, MS 6372, Oak Ridge National Laboratory, PO Box 2008, Oak Ridge, Tennessee 37831-6372, phone (615) 574 4681, fax (615) 576 2822, bitnet QM91 at ORPHO1

CERN Courier index

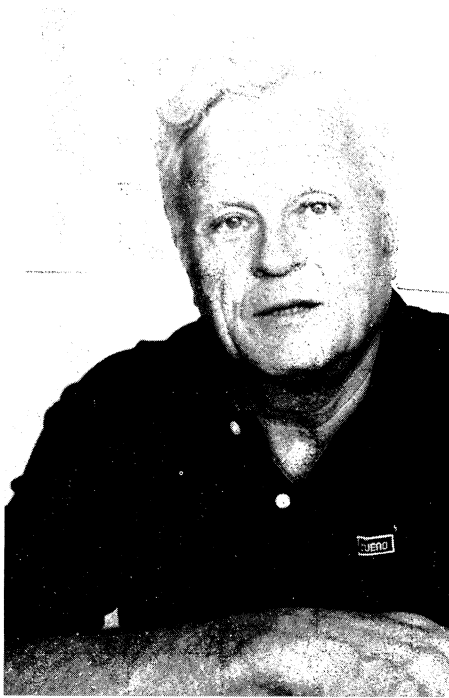
The index for Volume 30 (1990) of the CERN Courier is now available from Petra Pamblanco, Publications, CERN, 1211 Geneva 23, Switzerland (fax (+41) 22 782 1906, bitnet petra.pamblanco at macmail.cern.ch). Please specify whether you require an English or French edition.

Nobuyuki Tanaka 1937-1991

Noby Tanaka, scientist and international research collaborator at the Los Alamos Meson Physics Facility (LAMPF) died on 23 February after a brief illness.

Noby came to LAMPF in 1969 after a doctorate from Tufts and became a key member of the High Resolution Spectrometer team. He subsequently joined in many collaborations on HRS and other LAMPF spectrometers, especially in the face of difficult challenges, such as mounting polarized targets in the spectrometers, and Noby's role brought him the friendship and esteem of colleagues from abroad. Subsequently he worked on polarized target experiments at Fermilab and was involved in planning for spin physics at the UNK machine being built at the Soviet Institute for High Energy Physics, Serpukhov. LAMPF founder Louis Rosen said 'Noby's death leaves an empty place in our hearts as well as our plans'.

Klaus Steffen 1925-1991.



Klaus Steffen 1925-1991

Klaus Steffen, well-known accelerator expert and one of the early staff members of the DESY Laboratory in Hamburg, died on 17 March. He had retired from DESY last year but continued to work enthusiastically on several new projects.

After eighteen months at the US Cambridge Electron Accelerator, in 1958 he began his Hamburg career in high energy electron accelerators and beam optics with Willibald Jentschke. After being involved in the construction of the 6 GeV DESY synchrotron (in particular the magnets for the experiments) and the 450 MeV linac, his masterpiece was the DORIS electron-positron storage ring, commissioned in 1974 and still in operation.

His knowledge of beam optics and magnet design proved invaluable in the construction of other accelerators. In particular he devel-

oped the 'mini-beta' focusing system for the PETRA storage ring and the spin rotators for the new HERA electron ring.

The direct and clear way he expressed opinions, proposed solutions and pointed out problems – always constructively and objectively – was highly appreciated, making him an ideal partner to discuss new ideas and projects. His excellent contacts included colleagues from Laboratories all over the world.

Sakharov-70

The 21 May would have been the 70th birthday of Andrei Sakharov, who died on 14 December 1989 (January/February 1990, page 29). The anniversary is being celebrated by some conferences in the USSR, and the reminiscences of colleagues will be published in a book 'Andrei Sakharov – Facets of a Life' (ISBN 2-86332-096-3) to be issued by Lebedev Physics Institute and Editions frontières.

The contributions follow pivotal periods of Sakharov's life, revealing both scientific and humane aspects of his personality. Many documents are published for the first time. The collection underlines the man's remarkable impact on the intellectual and moral foundations of the modern world.

A special May issue of the review journal 'Uspekhi Fizicheskikh Nauk' is also devoted to Sakharov, containing his main scientific papers and other revealing contributions, providing a natural complement to the new book.

First protons in HERA

On the night of 14/15 April, the first protons (at 40 GeV) were stored in the new 6.3 kilometre superconducting ring of the HERA electron-proton collider at the DESY Laboratory, Hamburg. The single bunch was held for about a minute, making several million turns.

The radiofrequency value did not have to be changed, meaning that the circumference of the ring is correct. The quadrupole and sextupole correction magnets were not brought into action, as the machine's working point and chromaticity were at their expected values.

The next stage is to attempt an initial beam acceleration.

TEXAS ACCELERATOR CENTER

Associate Directors

Positions are open for Associate Directors at the Texas Accelerator Center (TAC). TAC is a division of the Houston Advanced Research Center (HARC), a nonprofit research institution linked with 8 collaborative universities. Created in 1983, HARC has six research centers and a staff of 125. The mission at TAC is to perform research in accelerator physics including relevant spin-offs and training of physics students. It is anticipated that an Associate Director would be eligible for a parallel regular faculty appointment at one of the collaborative institutions and be able to advise Ph.D. graduate students. Technology transfer to industry is an important consideration at TAC.

The required qualifications are the same as for the director, since they would, as associate directors, be expected to function as director in his absence. These responsibilities include directing existing research projects, initiating new research, interaction with funding agencies, and administrative duties as director. TAC has a research staff of 10 physicists, 10 engineers and 15 technicians.

Present research at TAC includes:

- design, construction and testing of the ion source, the low energy beam transport and the radio frequency quadrupole for the SSC;
- design and testing of superconductor for superconducting magnetic energy storage (this is in collaboration with Bechtel and General Dynamics);
- design of a complete compact synchrotron light source and construction and testing of one superconducting magnet for the ring.;
- development of high field NMR for medical diagnostics including the construction of a 4 tesla, 1-meter-bore, self shielded solenoid;
- development of very high gradient cavities for future accelerators;
- R&D on greater than 25 Tesla superconducting magnets;
- development of a superferric self-shielded magnet for magnetically levitated trains;
- theory including non linear beam dynamics; and
- particle research on D0 at FNAL and SDC at SSC.
- TAC frequently collaborates with FNAL, ANL and BNL.

There are currently 12 physics graduate students doing their Ph.D thesis work at TAC on the various projects. TAC has a special collaborative relationship with Rice University, Texas A&M University, University of Houston, The University of Texas at Austin, Sam Houston State University, Prairie View A&M University and the Baylor College of Medicine MR Center. TAC is located at HARC in The Woodlands, Texas near Houston Intercontinental Airport. For more information contact:

Contact: F. Russell Huson, Director
Texas Accelerator Center
4800 Research Forest Drive, Building II
The Woodlands, Texas 77381
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ARGONNE NATIONAL LABORATORY

Argonne National Laboratory (ANL) is currently seeking several professionals for its 7GeV Advanced Photon Source (APS) Project. The APS Project will be a national user facility producing extremely brilliant x-rays for applications in a broad range of scientific disciplines.

PHYSICIST

A Ph.D. in Physics and minimum ten years experience in accelerator vacuum chamber systems are vital. Additionally, considerable knowledge of ultra-high vacuum physics and technology, surface physics and experimental techniques of surface science, and safety practices are required. (Box# 89239)

SURFACE SCIENTIST

Requirements include a Ph.D. in Chemistry or equivalent and two years experience with experimental and analytical surface science studies at a large light source installation. Knowledge of physical chemistry principles and practices; ultra-high vacuum system technology, design and analysis; fabrication and machining of materials; an understanding of machine drawings; and the ability to prepare sketches is also necessary. (Box# 89271)

VACUUM ENGINEER

A degree in Mechanical Engineering or equivalent and ten years experience are needed, along with excellent knowledge of ultra-high vacuum construction and measurement techniques, general instrumentation, and good skills in interpreting results. (Box# 89281)

DIAGNOSTICS GROUP LEADER

A Ph.D. in Physics or Electrical Engineering or equivalent, and comprehensive experience in the design of diagnostics hardware and electronics are required. Technical challenges include the designing of: extremely sensitive beam positron monitors for the storage ring, a broadband longitudinal damper system, and a complex feedback orbit control system. Will also be responsible for a budget of over eight million dollars, while recruiting approximately four additional group members. (Box# 92412)

ELECTRICAL ENGINEER

Requires a Master's degree in Electrical Engineering or Computer Science; 5-7 years experience designing and programming hardware interfaces, digital electronics, and data acquisition systems. Experience with 'C', Unix, and data communications using ethernet and VME are required. Knowledge of VXI and implementing the latest communications architectures, including MXI bus and FDDI is desired. (Box# 37995)

MICROWAVE SCIENTIST/ENGINEER

Requires a Ph.D. or equivalent in Engineering/Physics; knowledge of general rf microwave science and technology, electromagnetic theory and basic engineering fundamentals; and, an understanding of high rf-power (pulsed) generating systems and the distribution of such rf-power. (Box# 82904)

Argonne is located in an attractive suburb 25 miles southwest of Chicago, and offers an excellent salary and benefits package. Confidential consideration can be obtained by sending a resume, in response to the appropriate box number, to: **Walter D. McFall, Box J-APS-(Box#)-88, Employment and Placement, ARGONNE NATIONAL LABORATORY, 9700 South Cass Avenue, Argonne, IL 60439.** Argonne is an equal opportunity/affirmative action employer. (Use your PC to learn more about ANL and other available opportunities. Dial (508) 263-3857 and key in the password ARGON.)



Post Doctoral Position in High Energy Physics

The experimental high energy group at the University of Houston seeks a Research Associate. The group's present involvements include the Spin Muon Experiment, now running at CERN, the Large Volume Detector, now being assembled at Gran Sasso, and the L* detector for SSC, now being designed. In-house work includes both R&D, and production of streamer tubes at the Streamer Chamber Assembly and Research Facility (SCARF), and the development of high T_c superconducting permanent beam magnets. The appointment will not be reviewed until the third year. Candidates should have a Ph.D. in high energy physics, and be available as soon as possible, and no later than September 1991. Applicants should send a vita, list of publications, and the names of three references to Prof. Roy Weinstein, Institute for Beam Particle Dynamics, 632 SR1, University of Houston, Texas, 77204-5506. The University of Houston is an Equal Opportunity/Affirmative Action employer.

BROOKHAVEN NATIONAL LABORATORY

Mechanical Engineer

Brookhaven National Laboratory, one of the nation's leading R&D facilities, has an opening for a mechanical engineer within our National Synchrotron Light Source Department (NSLS) to work on the design, analysis, fabrication, assembly and installation of various magnetic, mechanical and support systems of the Superconducting X-Ray Lithography Source.

We require a BS/MS degree in mechanical engineering and several years relevant experience in finite element analysis of thermal/structural problems. Experience in design and fabrication of magnets and a knowledge of CAD/CAM, especially AUTOCAD, is desirable. Must also be familiar with machine shop practices.

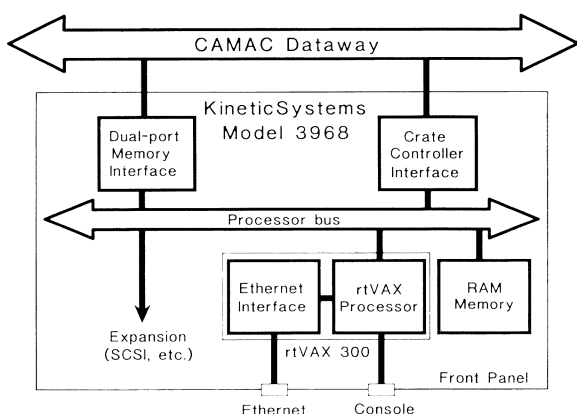
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RESEARCH ASSOCIATE STANFORD UNIVERSITY

The Stanford Synchrotron Radiation Laboratory (SSRL) is seeking two accelerator physicists to assist with the operation and development of SPEAR and its injector. SPEAR is a dedicated synchrotron radiation source that is now starting to operate with a newly built injector (Linac and Booster).

The successful applicants will work with a small group of accelerator physicists with responsibility for the accelerator physics studies of the SPEAR storage ring and its new injector.

Operating as a fully dedicated source, the SPEAR ring offers immense capability and potential as a synchrotron radiation source. Improvement plans include a low emittance optics, better beam stability, higher stored current and higher energy and several more insertion devices. The successful candidates will also be expected to contribute to the long-term upgrade of the facility involving state-of-the-art accelerator technology and to the studies of new and advanced concepts in the field of synchrotron radiation.

A Ph.D. in a related field is required. For a senior position, at least 5 years experience in accelerator physics is expected.

Applicants should write to Dr. Max Cornacchia, Stanford Synchrotron Radiation Laboratory, Stanford University, P.O. Box 4349, Bin 99, Stanford, CA 94309-0210, enclosing a curriculum vitae and names of at least two references.

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UNIVERSITY OF GENEVA

The Department of Nuclear and Particle Physics is involved in a program of detector development for the next generation of hadron colliders (LHC), and in particular at present a study of electron identification at high machine luminosities.

Applications are invited for the position of

RESEARCH ASSOCIATE

Responsibilities of the Geneva group in this program currently include electronic and mechanical aspects of detector design as well as associated physics simulations. Some involvement in an ongoing physics program may also be negotiated.

This post is limited to a maximum of six years, and applicants should have a PhD or equivalent in High Energy Physics. Applicants should send a resume describing their previous experience and major interests, before 31 May 1991, to

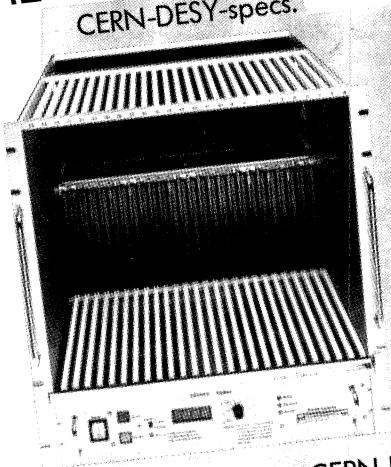
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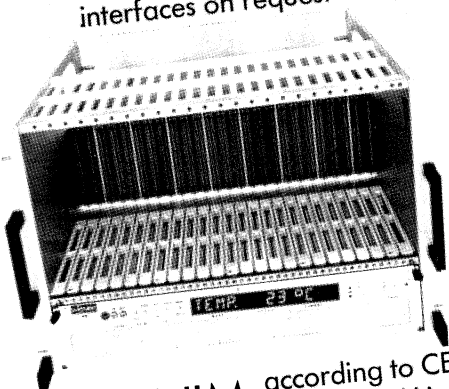
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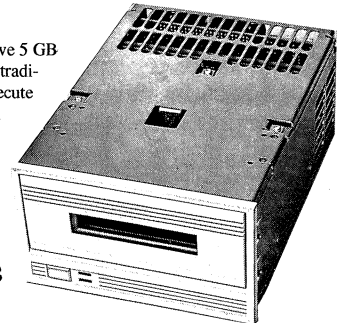


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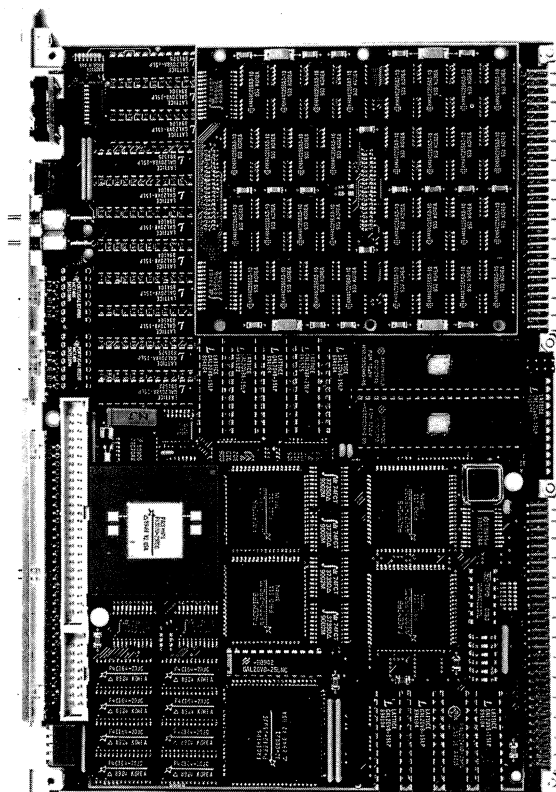
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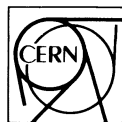
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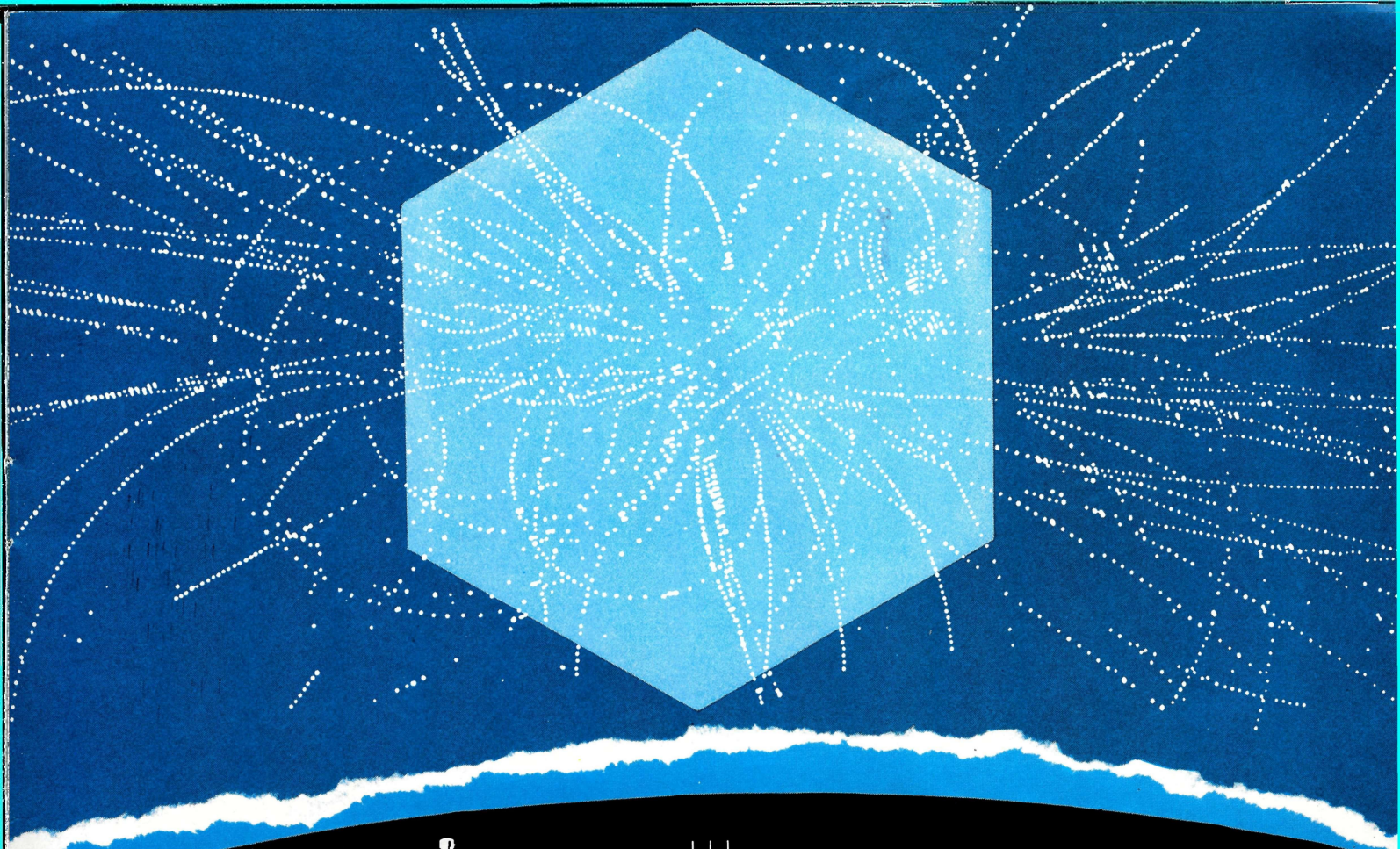


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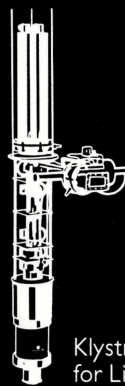
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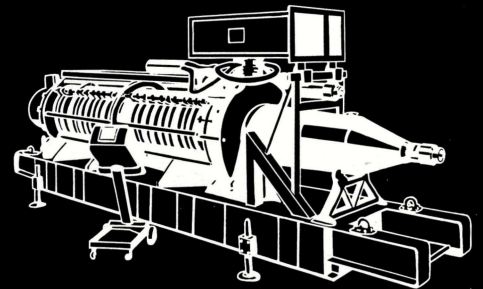
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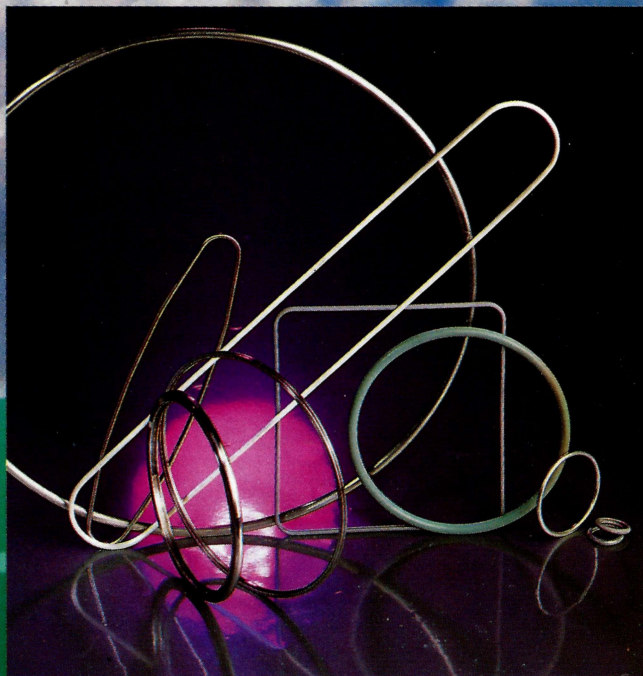
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