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The Committee on Data for Science and Technology (CODATA) was established in 1966 by the International Council of Scientific Unions.

Working on an international, interdisciplinary basis, CODATA seeks to improve the quality, reliability and accessibility of data of importance to science and technology.

It is on a sorrowful note that this *Newsletter* opens.... CODATA has lost three very close and valuable collaborators in the last four months of 1979; Bertrand Dreyfus, Executive Secretary and editor of the *CODATA Newsletter* and *CODATA Bulletin* since 1974 whose many qualities *Newsletter* and *Bulletin* readers have been able to appreciate and with whom I had the honor to work during this period; Stephen Rossmassler, an active and founding member of the CODATA Task Group on Accessibility and Dissemination of Data, whose gentle wit and vast knowledge brought great joy whenever he entered the Secretariat; and lastly, Arnold A. Bondi, Chairman of the CODATA Task Group on Data for the Chemical Industry and an animating force on the needs of industrial data within CODATA, whose enormous experience, knowledge and fine personal qualities will be deeply missed.

Phyllis Glaeser

IN MEMORIAM
STEPHEN A. ROSSMASSLER

Dr. Stephen Atwater Rossmassler, a physical chemist and program manager with the Office of Standard Reference Data at the National Bureau of Standards, U.S.A. died suddenly of a heart attack on August 14, 1979 at the age of 59.

A native of White Plains, New York, Dr. Rossmassler was educated at Amherst College and the University of Utah, where he received his doctorate in chemistry in 1950.

Dr. Rossmassler worked for E.I. duPont de Nemours & Company of Wilmington, Delaware for 12 years as a research chemist and patent advisor, leaving in 1963 to become Assistant Director of the Office of Critical Tables at the National Academy of Sciences in Washington. One year later he joined the National Bureau of Standards to work in the Office of Standard Reference Data where he served until his death, although he often was detached on special assignments.

Dr. Rossmassler was an information specialist who never lost sight of the real purpose of scientific information. He studied and understood the enormous complexities of the movement of scientific knowledge from its source in research to its varied applications and uses. He was involved in many activities which attempted to tune the systems of information transfer and provide rapid and accurate access to the results of scientific endeavor.

His untimely death represents a great loss for the community symbolized by CODATA. As a charter member of the CODATA Task Group on Accessibility and Dissemination of Data, he helped formulate a meaningful program on data dissemination and gave generously of his energies to the various activities of the Task Group. He had written three chapters and was serving as co-editor for a book titled "Handling of Numerical Data for Science and Technology, an Overview and Sourcebook," which will be published by Elsevier North-Holland in 1980.

Rossmassler brought a scholar's mind to his work and interests, and was immensely well-liked and respected by his co-workers. His scholarly approach to complex problems, his conscientious service to many organizations, and his urbane and gentle wit will be remembered by all.

He is survived by his wife, Mildred Lang Rossmassler, and their sons, Richard and Maxwell.

David R. Lide, Jr.

IN MEMORIAM
ARNOLD A. BONDI

Arnold A. Bondi, a consulting engineer with Shell Development Company died on November 26, 1979 at the age of 63 years old after a long illness. Dr. Bondi had a life-long interest in the relationship between the molecular structure of substances and their behavior in the liquid and solid state. He put this interest to good use in his scientific and technical activities to interpret, correlate and predict the properties of liquid and solid systems.

He also had a keen interest in reference data and data evaluation. In his capacity as a delegate of the World Federation of Engineering Organizations, he played a very active role in the program of CODATA's Task Group on Data for the Chemical Industry of which he was the chairman, until just before his death. He was also a member of the U.S. National Committee for CODATA and of the NAS/NRC Evaluation Panel for the NBS Office of Standard Reference Data. Prior to these activities he had served for a number of years as an advisor to the American Petroleum Institute Research Project 42 on the higher molecular weight hydrocarbons and took part in the establishment of the API Technical Data Book - Petroleum Refining.

A prolific researcher, Dr. Bondi was the author of 12 patents and 84 books and research papers. He was a Fellow of the American Institute of Chemical Engineers and a member of the American Chemical Society.

Howard J. White, Jr.

IN MEMORIAM

BERTRAND DREYFUS

Bertrand Dreyfus, Executive Secretary of CODATA from 1 March 1974 until 15 May 1979, died on 28 September 1979.

Born in Paris on 15 January 1923, he attended the Lycée Janson in Paris, obtaining his Baccalauréat in 1940. In common with many of his compatriots he left France for the USA soon after the German invasion and studied at the University of Chicago, graduating with a Bachelor of Science degree in 1943.

He returned to France in 1945 and continued his studies at the Sorbonne, finishing with a Licence de Physique in 1947.

The next phase of his life, from 1947 till 1959 was devoted to research in F. Joliot-Curie's laboratory at the Collège de France, mainly studying low energy nuclear reactions with the help of cloud chambers.

After a brief interlude in commercial scientific publishing Dreyfus joined, in 1960 at its inception, the Preparatory Committee for Space Research, the forerunner of the European Space Research Organisation (ESRO), and remained during the next 13 years in close contact with Professor P. Auger, one of the "founding fathers" and, for 5 years, Director General of ESRO.

He successively organized the information services and the central library of ESRO and was for 7 years (1966-73) in charge of ESRO's scientific and technical publications. He resigned his position when ESRO moved its Scientific and Technical Centre to Nordwijk in the Netherlands.

When, early in 1974, CODATA transferred its Secretariat from Frankfurt to Paris, new staff had to be engaged and, thanks to both his experience in scientific information and, even more, to his wide interests and solid knowledge, Bertrand Dreyfus was the obvious and unanimous choice for the post of Executive Secretary. As Edgar Westrum, our Secretary General, remarked, interviewing Bertrand was not a dry, stereotyped affair but a stimulating and enjoyable experience, an animated yet thoughtful discussion on many scientific and organizational matters conducted, in Bertrand's case, in impeccable French and English.

The next five years showed the validity of this first impression. CODATA benefited immensely from Bertrand's incisive intellect, encyclopaedic knowledge and penetrating interest in everything and everybody around him. There was barely a topic, be it science, literature, music, history, linguistics, etc. to which he could not contribute - his vision was wide, his tastes catholic. To give an example - as a regular reader of the *Scientific American* he regarded the advertisements as an integral part of the publication, since they shed light on the attitudes, fads and fancies of scientists in the US, and he was therefore somewhat disappointed to see the slim, publicity-free issues of the French edition.

It was sometimes said, with a slight pejorative slant, that Bertrand was a "perfectionist", but to those of us who saw him at work as editor of the Proceedings of the Tsakchadzor, Boulder and Santa Flavia Conferences, it was clear that his search for perfection was more than a sterile, albeit worthy, effort to get rid of trivial errors. He was not content until he understood fully what the author had said - or wanted to say - and until he was sure that it would be understood equally well by the reader. This is just one example of Bertrand's uncompromising stand when it came to scientific integrity, an attitude which permeated his life and work in CODATA. It would be difficult to point to any particular important innovation or new project due to Bertrand during these 5 years, but his influence was ever-present and many of us in CODATA have become so accustomed to his wise counsel, that we still ask ourselves instinctively, when embarking on some new venture, "What would Bertrand have said?"

Bertrand was a good and generous man, devoid of any malice, a reliable friend. He had a gentle sense of humour, his conversation was absorbing, he was delightful company and, although he often suffered acute physical pain, he never showed it. Because of his many attainments, his lovable character, his integrity, Bertrand could best be described by the classical Greek expression αγηρ τετραγονοσ, literally translated as a "four-square man" but meaning more than "solidly based" or "steady" or "resolute". It has undertones of perfection, of integrity - like a reliable and accurately fashioned block of stone, its many facets pleasing to the eye, an entity fulfilling a purpose. A quotation from a Greek author is poignantly apposite to Bertrand: "the truly good many who is τετραγονοσ (four square) will best put up with the vicissitudes of fortune".

Indeed the last years of Bertrand's life were full of suffering. His health steadily declined, he had to undergo several major operations and he was only able to live through those years with unparallelled patience and serenity thanks to the strength of his character and the loving care of his wife, Stephane, to whom all connected with CODATA would wish to send their heartfelt sympathy.

Bertrand had to give up his position as CODATA's Executive Secretary on 15 May 1979 and, although he had hoped that he would recover sufficiently to resume, at least part-time, his connection with CODATA, this was not to be.

His mental abilities, his spirit remained fully alive almost to the last. Mme. Dreyfus tells how, less than 5 hours before his death, Bertrand talked to her with, for him, unusual feverish urgency, about Beethoven's 5th Symphony; how that work, conceived and composed in a single creative act, was not performed until much later because of troubles in copying the work, and how Mozart had experienced similar difficulties. He seemed to have been preoccupied in those last hours with the interplay between creativity and the transmission of its results; and vice versa, the reliance of the creative artist on the orderly methods of technology. Although Bertrand spoke only of the composer, he must have had the scientist also in his mind. His ideas and reflections provide food for thought about the aspirations of CODATA.

Nicholas Kurti

TENTATIVE SCIENTIFIC PROGRAM
7TH INTERNATIONAL CODATA CONFERENCE
8-11 OCTOBER 1980 KYOTO, JAPAN

THEME: ROLE OF DATA IN A DYNAMIC WORLD

PLENARY SESSIONS

WEDNESDAY - OCTOBER 8

THE OPENING PLENARY SESSION:
Co-chairmen: Dr. W.W. Hutchison and Prof. T. Shimanouchi

Opening Ceremony
Presidential Address - *Masao Kotani, President, CODATA*

Key Note Addresses

Use of Data in Basic and Applied Sciences - *P.H. Abelson (Editor of SCIENCE, U.S.A.)*
Data for Development and Human Settlements in a Dynamic World - *A. Ramachandran (Executive Director of UNCHS (HABITAT), Kenya)*
Informatic Analysis of Scientific Research - *T. Kitagawa (Kyushu University, Japan)*
Earthquake Prediction and Data - *T. Rikitake (Tokyo Institute of Technology, Japan)*
Prediction of Volcanic Eruptions - *D. Shimozuru (University of Tokyo, Japan)*

THURSDAY - OCTOBER 9

BIOSCIENCE SESSION

Theme: Data Collection which has Contributed to the Formation of New Ideas

Chairman: Prof. H. Gutfreund

Data Evolutionary Heritage - *M. Kimura (National Institute of Genetics, Japan)*
Computerized Gas Chromatography-Mass Spectrometry in Biomedical Studies. Coordination and Handling of the Data - *E. Jellum (University of Oslo, Norway)*
Data Collection from Large Scale Electrophoretic Analysis - *P. Spragg (Univeristy of Birmingham, U.K.)*
Data Analysis from Cell Separation - *T. Jovin (Max-Planck Inst. fur Biophysikalische Chemie, F.R.G.)*
The Primary Structure of Immunoglobulins and the Notion of Generation of Diversity - *A. Bussard (Institut Pasteur, France)*
Higher Order Activities of Biological Systems - *K. Sato (Nagasaki University, Japan)*

FRIDAY - OCTOBER 10

COMPUTER USE SESSION

Theme 1: Computer Storage and Dissemination of Data

Chairman: Prof. J.E. Dubois
Data Base Management System for Numerical Data: An Overview - *V. Hampel (Lawrence Livermore, U.S.A.)*
Interactive Computer Graphics: An Update - *M. Lucas (Institut de Mathematiques et d'Informatique, France)*
Evaluation Tools for Data System Evaluation - *C. Michel (France)*

Theme 2: Evaluation of Large Data Sets

Chairman: Dr. D.R. Lide, Jr.

Handling and Evaluation of Large Networks of Thermochemical Data - *D.D. Wagman (National Bureau of Standards, U.S.A.)*
Large Data Bases for Igneous Petrology - *F. Chayes (Geophysical Laboratory, Washington, U.S.A.)*

SATURDAY - OCTOBER 11

DATA COMPILATION AND DISSEMINATION SESSION

Theme 1: Data in Industrial Applications

Chairman:

A Computerized Material Data Bank - An Initiative of the Metals Properties Council - *J. Graham (J. Deere & Co., U.S.A.)*
Data Gaps for the Industrial Organic Chemicals - *M. Schoenberg (Hoechst AG, Frankfurt, F.R.G.)*
Data Programs for a Chemical Company - *E. Bartkus (E.I. du Pont, U.S.A.)*
A Computerized Materials Data Base for an Automotive Manufacturer - *P. Appoo (BNF Metals Tech. Centre, U.K.)*
EMPIS, A Data Program of an Electrical Manufacturing Company - *J.H. Westbrook (GE Co., U.S.A.)*
The Data Programs of the Engineering Sciences Data Unit - *K. Reynard (ESDU, U.K.)*

Theme 2: Chemical Data Bank Formation

Chairmen: Dr. R.N. Jones and Prof. T. Shimanouchi

K. Frei (Sandoz AG, Switzerland)

V.G. Koptyug (Novosibirsk State University, U.S.S.R.)

Theme 3: Problems in Data Transfer

"Copyright" of Data
Data Preservation
Economics and Cost Effectiveness

CONTRIBUTED PAPERS

The following papers and poster sessions have been contributed. At the time of going to press the dates and session titles had not yet been organized. We present five general categories of papers herewith.

COMPUTER SESSIONS

Integrated Information and Communication System for a Scientist: Analysis and Design - *I. Mistrik ((GID-SfS) Heidelberg, F.R.G.)*

Application of a DBMS at NEA Data Bank: Problems and Experience with a Large Data Base on a Small Computer - *Nigel Tubbs ((NEA Data Bank, Gif-sur-Yvette, France)*

User-oriented Database Management System, COOD, and its Applications to On-line Data Storage and Retrieval - *Nobuyuki Tanaka, Takako Matsuda and Akifumi Yamada (Tokyo University, Japan)*

The Dedicated Microcomputer as an Instrument for Technology Transfer - *Claude McMillan (University of Colorado, U.S.A.)*

The Numeric Data-problems of Non Reproducible Data due to Large Growth Rates - *G.K. Hartman (Max-Planck Institut für Aeronomie, F.R.G.)*

First Experience with the Euronet DIANE Network as an On-line Source of Scientific and Technical Data - *G.W.P. Davies (Euronet DIANE General Manager, Luxembourg)*

Five Years of Chemical Information Service with TOOL-IR - *Takeo Yamamoto, Masamitsu Negishi, Mamoru Ushimaru and Shizuo Fujiwara (Japan)*

Omnidata and Related Software as Developed and Applied by the Office of Standard Reference Data for On-line Retrieval, Analysis, and Manipulation of NSRDS Data Files - *Bettijoyce Molino (NBS, Washington, U.S.A.)*

A Relational Data Base Management System for Scientific Data - *Stephen E. Jones (University of California, U.S.A.)*

Information System Monitoring and Analysis to Support the Evaluation of Computerized Access to On-line Data Bases: Part I. Monitoring and Part II. Analysis - *Wayne D. Dominick and W. David Penniman (University of Southwestern Louisiana, U.S.A.)*

Integrating Data, from Different Sources, at Different Scales - *Francois Bouille (Université Pierre et Marie Curie, Paris, France)*

Data Element Standardization; a Methodology for describing Numeric Data - *R.E. Nolan (Evaluation Research Corporation, Virginia, U.S.A.)*

Towards a Better Understanding of Data Base Mappings - *Elaine Lisboa (University of Southwestern Louisiana, U.S.A.)*

Format Translation of Computerized Data Bases - Beware! - *John Rumble (International Atomic Energy Agency, Vienna, Austria)*

Specification and Integration of Semantically Heterogeneous Data: Statistical Databases - *Hideto Sato (University of Tsukuba, Japan)*

Graph-Based Region Analyser - *Nobuo Ohbo, Kazuya Shimizu and Toshiasu L. Kunii (University of Tokyo, Tokyo, Japan)*

Hyperbolic Subsegmental Interactive Analysis of Curve-, Surface-, and Space-type Data - *R.R. Hartwig (IBM Scientific Center, Heidelberg, F.R.G.)*

Information Content of Analytical Signals and Their Evaluation - *K. Eckschlager and V. Stepanek (UHA, Prague, Czechoslovakia)*

Synthesis of Scientific Information Structure using Large Scale Database - *Sadaaki Miyamoto, Kazuhiko Nakayama and Terko Aoki (University of Tsukuba, Japan)*

Abstracting of Numerical Data - *A. Beck and A.S. Kertes (Armak Research Laboratory, Illinois, U.S.A.)*

Quantitative Analysis of General Trend of Science and Technology - *Hajime Eto (University of Tsukuba, Japan)*

An Approach to Retrieval of Conceptional Contents of Scientific Information - Sentence Retrieval - - *Michiyo Nikkuni and Hajime Tanaka (University Hokeido, Sapporo, Japan)*

A Model Topological Information Spatial Data Base System for Unified Description and Management of Various Data - *Seiichi Uchinami and Yoshikazu Tezuka (Osaka University, Japan)*

Multimicroprocessor Architecture for Reliable Collection and Processing of Air Traffic Real-time Surveillance Data - *G. Bucci and D. Maio (University of Bologna, Italy)*

Quantification of Patterns and its Application to the Analysis of Variance - *Mitsuo Sato and Ayako Shinozaki (Gunma University, Kiryu, Japan)*

Adaptive Method for Dual Parametric Identification and Reverse Filtration of Non-linear Stochastic Dynamic Plants - *D. Burev (Bulgarian Academy of Sciences, Sofia, Bulgaria)*

Centre of Data for Research in Siberian Branch of U.S.S.R. Academy of Sciences - *Y. Drobyshev (Novosibirsk, U.S.S.R.)*

PHYSICS AND CHEMISTRY

Preliminary Research for the Establishment of Spectral Data Bank in National Chemical Laboratory for Industry - *Shinnosuke Saeki and Osamu Yamamoto (Tsukuba Research Center, Japan)*

The Evaluation of the Results of Spectrochemical Analyses in Terms of Information Quantities - *K. Eckschlager, V. Stepanek (UHA, Prague, Czechoslovakia)*

Evaluation and Quality Control of Large Spectral Data Bases in the NIH/EPA CIS - *G.W.A. Milne and Stephen R. Heller (NHLBI, NIH, Maryland, U.S.A.)*

Evaluation of Raman Spectral Data - *Jiro Hiraishi, Shinnosuke Saeki and Takehiko Shimanouchi (Tsukuba Research Center, Japan)*

Retrieval and Simulation of UV Photoelectron Spectra of Organic Molecules - *P.K. Basu, M.K. Uppal and C.N.R. Rao (Indian Institute of Science, Bangalore, India)*

The JICST On-line Mass Spectral Retrieval System - *Hiroshi Nakai, Hisako Uchida, Natsua Onodera, Tooru Morooka, Masayuki Sato and Takaharu Osada (Centre of Information for Science and Technology, Japan)*

Present Status of Users and Contributors of Mass Spectroscopic Data in Japan - Results of Survey by Enquete Method - *Committee on MS Data Base Mass Spectroscopic Society of Japan (Ibaragi-ken 305, Japan)*

Personal Literature Database Construction for Nuclear Magnetic Resonance - *Akira Yamasaki (University of Electro-Communications, Tokyo, Japan)*

A Carbon-13 and Proton NMR Spectral Data Retrieval System: SPIRES - *Hidetsugu Abe, Kazuo Tanaka and Shin-ichi Sasaki (Toyohashi University of Technology, Japan)*

Carbon-13 NMR Database for Advanced Researches of Polymers - *Y. Fujiwara, K. Hatada, T. Hirano, S. Kondo, K. Matsuzaki, A. Hishioka, Y. Tanaka and B. Tomita (University of Tsukuba, Japan)*

An Efficient Search Program (KISS) for ASTM Infrared Spectral Data - *Kazutoshi Tanabe, Tadao Tamura, Jiro Hiraishi and Shinnosuke Saeki (Tsukuba Research Center, Ibaraki 300-31, Japan)*

Reference Standards for Infrared Intensity Measurements - *R. Norman Jones (Tokyo Institute of Technology, Tokyo, Japan)*

Compact Description of Chemical Structures - *Yoshihiro Kudo (Association of Chemical Information, Tokyo, Japan)*

Geometrical Structure of Carbonyl Chloride; A Case Study of the Complementary Use of Gas Electron Diffraction and Microwave Spectroscopy - *M. Nakata, T. Fukuyama, K. Kuchitsu, T. Takeo and C. Matsumura (University of Tokyo, Tokyo, Japan)*

Vapor Pressure Data of Simple Organic Substances, Their Availability and Reliability - *Eliahu Hoffmann (National Center of Scientific and Technical Information, Tel-Aviv, Israel)*

Vapor Pressure Compilations - Critical Review and New Proposals - *Andrzej Maczynski and Andrzej M. Szafranski (Polish Academy of Sciences, Warsaw, Poland)*

Molecular Structure and Ideal Gas Thermodynamic Properties of Simple Chemical Substances - *Jing Chao and Kenneth R. Hall (Texas A&M University, Texas, U.S.A.)*

Chemical Thermodynamic Properties of Coal Chemicals: Aromatic Hydrocarbons - *S.A. Kudchadker, P.K. Paranjape and A.P. Kudchadker (Indian Institute of Technology, Bombay, India)*

Thermodynamic and Phase Diagram Data of Metal-Sulfur Systems - *Y. Austin Chang (University of Wisconsin-Milwaukee, Wisconsin, U.S.A.)*

Estimation of Physical Properties from the Data File on Superconducting Materials - *H. Ihara, M. Yamazaki, K. Kawaguchi and S. Gonda (Electrotechnical Laboratory, Ibaraki 305, Japan)*

Methodology for Critical Analysis of Thermophysical Property Data and the Evaluation of Standard Reference Materials in Thermophysics - *Merrill L. Minges (Wright-Patterson AFB, Ohio, U.S.A.)*

Prediction of Thermodynamic and Transport Properties of Fluids by means of Significant Liquid Structure Theory - *W. Nowak (Stuttgart University, F.R.G.)*

The Development of Generalized Techniques for the Prediction of the Thermophysical Properties of Industrial Fluids - *Neil A. Olien (NBS, Colorado, U.S.A.)*

On the Use of Thermochemical Data for Optimisation and Handling the Different Steps in Industrial Processes - *C. Bernard (Centre de Thermodynamique Chimique Minerale, France)*

Thermodynamic Data in Industrial Application - *Andrzej Bylicki and Andrzej Maczynski (Polish Academy of Sciences, Warsaw, Poland)*

Necessity for Establishing the Skeleton Tables on the Thermodynamic Properties of Fluids - *J. Straub, K. Scheffler, N. Rosner, K. Watanabe, M. Uematsu, H. Sato (Keio University, Yokohama, Japan)*

The Fluid Phase Equilibrium Data Project of the IUPAC Subcommittee on Thermodynamic Tables - *Henry V. Kehiaian (C.N.R.S., Marseille, France)*

Densities of Liquid Haloethanes - *A.P. Kudchadker and S.A. Kudchadker (Indian Institute of Technology, Bombay, India)*

Compilation of Second Virial Coefficients for Pure Organic Compounds and Binary Mixtures and Comparative Evaluation of the Existing Methods for Correlation and Estimation - *J. Cholinski, A.M. Szafranski and D. Wyrzykowska-Stankiewicz (Institute for Industrial Chemistry, Warsaw, Poland)*

Vapor Liquid Equilibrium Data for p-xylene-vinyl acetate and m-xylene-vinyl acetate Systems - *R. Rajamani and D.M. Seshadri (Indian Institute of Science, Bangalore, India)*

Recent Activities of the Japanese Research Committee on Thermophysical Properties of Fluids - *T. Makita, Y. Tanaka, K. Date, H. Iwasaki, S. Takahashi, K. Watanabe, A. Nagashima, K. Oguchi, J. Osugi, Y. Takesaki and N. Sugita (Department of Chemical Engineering, Kobe University, Japan)*

Application of the Tait Equation of State to the Determination of Thermophysical Properties of Liquids Under Pressure - *B. Le Neindre and R. Tufeu (Université Paris Nord, Villetaneuse, France)*

Representation of Physical Relationships by Empirical Equations - *John Mandel (NBS, Washington, U.S.A.)*

Critical Evaluation and Compilation of Molecular Geometry Data determined by Gas Electron Diffraction - *K. Kuchitsu (University of Tokyo, Tokyo, Japan)*

Molecular and Crystal Data System - *Takehiko Shimanouchi (University of Tsukuba, Ibaraki 300-31, Japan)*

Inorganic Crystal Structure Data Base - *G. Bergerhoff (Bonn, F.R.G.)*

Accumulation of Atomic Coordinates Not Printed in Crystal Structure Reports - *K. Osaki and N. Yasuoka (Kyoto University, Japan)*

The NIH-EPA Chemical Information System in Support of Structure Elucidation - *Stephen R. Heller and G.W.A. Milne (EPA, Washington, U.S.A.)*

QCLDB - Quantum Chemistry Literature Data Base - *Y. Osamura, S. Yamabe, F. Hirota, H. Hosoya, S. Iwata, H. Kashiwagi, K. Morokuma, M. Togashi, S. Obara, K. Tanaka and K. Ohno (Women's University of Ochanomizu, Tokyo, Japan)*

Database and Retrieval-Display System of Atomic Data for Thermonuclear Fusion Research - *Y. Itikawa, Y. Kanada, T. Kato and R. Watanabe (Laboratory of Plasma, Nagoya University, Japan)*

Data Bases for Rapid Response to Power Reactor Problems - *Betty F. Maskewitz (EPIC, Tennessee, U.S.A.)*

The Impact of a Database on Elementary Particle Physics Research in the U.K. - F.D. Gault *(University of Durham, Durham, U.K.)*

Numerical Data Banks in Physics: What has been done, What should be done - *H. Behrens and G. Ebel (Fachinformationszentrum Energie, Physik, Mathematik GmbH, Karlsruhe, F.R.G.)*

The Use of the Thermodynamic and Physical Data Bank EPIC in Energy Accounting - *Boris Kalitventzeff, Georges Heyen, Christian Renson and Robert Gosset (Université de Liège, Belgium)*

The TRL correlation Package and the related Thermodynamic Data Banks: Mixture Data - *Buford D. Smith (Washington University, Missouri, U.S.A.)*

Views on a Data Bank on High Pressures and Criteria for the Evaluation of a Data Bank - *B. Vodar (Centre Universitaire Paris Nord, Villetaneuse, France)*

A New Database on the Thermophysical Properties of Fluids - *T. Makita, Y. Tanaka, T. Takamori and Y. Takaoka (Kobe University, Kobe, Japan)*

Thermodata: An Integral System for Physical Chemistry Information - *Yves Deniel (Bibliothèque Inter-Universitaire de Grenoble, Saint Martin d'Heres, France)*

Basic Policies for Developing Accumulation and Distribution System of Physical and Chemical Property Data - *Makane Shimizu (Promotion Bureau Science and Technology, Japan)*

Data Storage, Evaluation and Standardization in the Fields of High Performance Liquid Chromatography - *Hiroyuki Hatano (University of Kyoto, Japan)*

Mineral and Inorganic Crystal Data Base - *Gen Sato, Hiroshi Takeda, Yoshio Takeuchi and Masamichi Miyamoto (University of Tokyo, Tokyo, Japan)*

A Data Base Management System to handle Time Series of Solar Energy Data - *D. Maio and M. Spadoni (CIOC-CNR, Bologna, Italy)*

Computer-based Compilation and Filing of Electrochemical Kinetic Parameters - *Hisakuni Sato, Katsumi Niki, Reita Tamamushi (University of Yokohama, Yokohama, Japan)*

Data in Electromembrane Processes - *R. Audinos (Université Paul Sabatier, Toulouse, France)*

Evaluation and Compilation of Electrochemical Data for Organic and Inorganic Compounds - *L. Meites, E. Rupp, A. Narayanan and P. Zuman (Department of Chemistry, Clarkson College, Potsdam, New York, U.S.A.)*

Screening of Latent Heat-Thermal Energy Storage Materials by using Evaluated Thermodynamic Data - *T. Ozawa, M. Kamimoto, R. Sakamoto, Y. Takahashi and K. Kanari (Electrotechnical Laboratory, Ibaraki 305, Japan)*

New Thermodynamic Functions Relevant to Conservation of Energy - Theta Function and Reference Energy Table of Elements, version 1980 - *S. Yamauchi and K. Fueki (University of Tokyo, Tokyo, Japan)*

Evaluation of Large Data Sets in Mineralogical Thermochemistry - *John L. Haas, Jr., Gilpin R. Robinson, Jr. (U.S. Geological Survey, Virginia, U.S.A.*

Information Storage and Retrieval, and Evaluation of Data on Ferroelectrics and Related Materials - *Koichi Toyoda, Yoichi Shiozaki, Eiji Nakamura and Toshio Mitsui (University of Shizuoka, Hamamatsu, Japan)*

Compilation of Nuclear Reaction Data in Japan - *Masatomo Togasi and Hajime Tanaka (University of Hokeido, Sapporo, Japan)*

Gaphyor: Properties of Neutral or Ionized Atoms, Molecules and Gases - *J.M. Mermet (Institut National des Sciences Appliquees, Villeurbanne, France)*

Discussion concerning possible Program on Reference Data for Metrology and Measurement Technique - *Tomasz Plebanski (R & D Centre for Standard Reference Materials, Warsaw, Poland)*

Automorphism Partitioning of Vertices of Chemical Graph - *M. Uchino (University of Science and Technology of Tokyo, Yokohama, Japan)*

Adjacent Name Fragment Pair - a New Search Key to Chemical Substances - *Soichi Tokizane and Hideaki Chihara (Association of Chemical Information, Tokyo)*

Compilation of Materials Data for Development of Specific Electronic Devices - *Masaya Yabe (Fugi Electronic, Yokosuka, Japan)*

Materials Data Base for Energy Applications - *S. Iwata, A. Nogami, S. Ishino and Y. Mishima (University of Tokyo, Tokyo, Japan)*

Improving Reproducibility of Low Temperature Standards - *Akira Inaba (Laboratory of Weights and Volumes, Ibaragi, Japan)*

Numerical Data and Optical Methods for Pollution Control - *N.G. Rambidi, R.I. Muchtarov, L.R. Malov (U.S.S.R.)*

Standardization and Numerical Data for Science and Technology - *L.K. Isaev, A.D. Kozlov and N.A. Semenko (U.S.S.R.)*

Data Bank for Thermodynamic Properties of Pure Substances - *L.V. Gurvich et al (U.S.S.R.)*

Joint Proceedings of Thermal, Calorical and Acoustical Experimental Data for Compilation of Thermodynamic Tables - *V.V. Sytchev and G.A. Spiridonov (U.S.S.R.)*

Numerical Data and Optical Methods for Pollution Control - *N.G. Rambidi, R.I. Muchtarov and L.R. Malov (U.S.S.R.)*

BIOSCIENCE

Coding and Acquisition of Phenotypic Data for Computers on Algae, Bacteria, Fungi, and Protozoa by a Common Method for Computers - *Frances A. Benedict, Claude Jackson and Micah I. Krichevesky (Food and Drug Administration, Maryland, U.S.A.)*

Construction of Numerical Descriptions of Groups of Microbes from Binary Data - *Cynthia A. Walczak (National Institutes of Health, Maryland, U.S.A.)*

Basic Requirement for Operating Sub-center Work in Data Processing System. A Model Case in Research of Peptide - *Yasuhiko Seto (Laboratory of Albumin, Mino, Japan)*

Systematic Information Retrieval and Directional Data Analysis of Oligopeptide Units in Protein Data Bank - *K. Kitamura, M. Sunada, A. Wakahara, K. Tomita, Y. Matsuura, N. Yasuoka, M. Kakudo and Y. Baba (University of Osaka, Suita, Japan)*

Cluster Analysis of Microbiological Data in Oversize Data Bases - *Micah I. Krichevsky (National Institutes of Health, Maryland, U.S.A.)*

On-line Information Retrieval System on Protein Structure Data and Interactive Graphics Display in Protein Crystallography - *M. Taketani, Y. Iga, Y. Matsuura, N. Yasuoka, M. Kakudo and Y. Isomoto (University of Osaka, Suita, Japan)*

Compilation and Evaluation of Radiation Depth-dose Data from Electron Accelerators used for Radio-therapy-experiences of a Pilot Data Project in a Hospital Environment - *Sherman P. Fivozinsky and J.A. Purdy (NBS, Washington, U.S.A.)*

The Automation of Human Fertility Analysis - *Gigi Bar-Or and Israel Paz (Technion Israel Inst. of Tech., Haifa, Israel)*

Evaluation of Neuronal Spike Train Data by new Methodologies of Waveform Discrimination and Point Process Analysis - *Masao Nakamura, Yosihiko Ogata and Yutaka Oomura (Fukui University, Japan)*

On the Use of a Data Base System for Information Processing in Plant Breeding - *Shigeru Suzuki (National Institute of Agricultural Sciences, Ibaraki, Japan)*

The Use of Cluster Analysis and Display Method of Pattern Recognition in Structure-activity Studies of Antibiotics - *Yoshikatsu Miyashita (Toyohashi University of Technology, Toyohashi, Japan)*

Development of a National Information System of Laboratory Organisms - *H. Sugawara, Y. Tateno and N. Sakamoto (Institute of Physical and Chemical Research, Tokyo, Japan)*

Data Contents and Processing in a National Information System of Laboratory Organisms - *H. Sugawara, Y. Tateno and N. Sakamoto (Institute of Physical and Chemical Research, Tokyo, Japan)*

A New Computer Program for Chemical Diagnosis of the Metabolic Diseases - *I. Matsumoto, T. Kuhara, T. Shinka, T. Mizuno, H. Teshima and N. Abe (Kurume University School of Medicine, Japan)*

Collection, Storage and Dissemination of Clinically Useful Data - An Experience with Drug Data - *Shigekoto Kaihara and Noboru Kawamura (University of Tokyo Hospital, Tokyo, Japan)*

On the Construction of the Medical Record Database for the A-Bomb Survivors - *T. Nakamura, H. Mori, M. Mine, H. Kondoo and S. Okajima (University of Nagasaki, Japan)*

Data-Base Computer-aided Conception: a Bio Medical Application - *J-P. Gondran and C. Prost (Université Pierre et Marie Curie, Paris, France)*

GEOSCIENCE

The BIWA System as a Prototype Data Base to manage various kinds of Data in Geology and Related Sciences - *Niichi Nishiwake, Kaichiro Yamamoto and Kiyoshi Wadatsumi (University of Kyoto, Japan)*

Assessment of Israel's Mineral Resources Potential by the Aerial Estimation Method - *Dan Gill (The Israel Academy of Sciences and Humanities, Tel-Aviv, Israel)*

Processing and Dissemination of Geological Data at the Geological Survey of Israel - *Dan Gill (The Israel Academy of Sciences and Humanities, Tel-Aviv, Israel)*

Interactive Graphic Data Entry and Display for the Geo-database System - *Kiyoshi Wadatsumi (Osaka City University, Osaka, Japan)*

Data Base for the Igneous Rocks of Japan - *Shigeo Aramaki (Earthquake Research Institute, University of Tokyo, Japan)*

Characteristics of Geological Field Data and Information Systems - *G. Gabert (Federal Geological Survey, Hannover, F.R.G.)*

Drilling data. Contribution to a Geological Data Bank - *M.J. Roulet (Université Pierre et Marie Curie, Paris, France)*

Developments in Geological Field Data - *D. Bureau (Université Pierre et Marie Curie, Paris, France)*

Systems of Remote Sensed Data - *Ivan Wiesenberger (Charles University of Prague, Prague, Czechoslovakia)*

The Equation of State of the Earth as a Habitat - *Michele Caputo (Università degli Studi, Rome, Italy)*

Real Time Data Collection System for Meteorological Applications: Design, production and experiences - *F. Baldassarri, G. Bucci and G. Neri (Universita degli Studi di Bologna, Bologna, Italy)*

SMLESIS - Database for Multidisciplinary Researches with Applications to Environmentology - *Yasuo Shimazu (Nagoya University, Nagoya, Japan)*

Current and Potential Application of Remote Sensing Satellite Data in Oceanography - *Jean-Marie Monget (Centre de Télédétection et Analyses des Milieux Naturels, France)*

Pattern Recognition and Cartographic Themes Combination for Water Resources Mapping - *C. David (Université Pierre et Marie Curie, Paris, France)*

Correspondencies Analysis in Thematic Cartography - *D. Lefebvre (Université Pierre et Marie Curie, Paris, France)*

Climap Data Base - Documentation of Global Climate and Climatic Change - *William Hutson (Oregon State University, Oregon, U.S.A.)*

The Electric Power Research Institute Water Supply Data Base System - a Scarce Resource Research Tool - *Frank W. Allen (The University of Arizona, Arizona, U.S.A.)*

Data Banks in Astronomy - *Carlos Jaschek (Observatoire, Strasbourg, France)*

Compilation of Machine-readable Astronomical Data Files - *Akira Uesugi and Ichiro Fukuda (University of Kyoto, Kyoto, Japan)*

Dissemination of Data in Astronomy and Astrophysics - *B. Hauck (Institut d'Astronomie de l'Université de Lausanne, Lausanne, Switzerland)*

Data Management Techniques Applied to Machine-readable Astronomical Data - *Yoichi Terashita and Akira Kitamura (Kanazawa Institute of Technology, Japan)*

Information Needs of Environmental Management System - *Nenad Prelog (Referral Center of the University of Zagreb, Zagreb, Yugoslavia)*

A Geographic Data Base for Computer Assisted Cartography - *Flavio Bonfatti and Paolo Tibertio (CIOC-CNR, Bologna, Italy)*

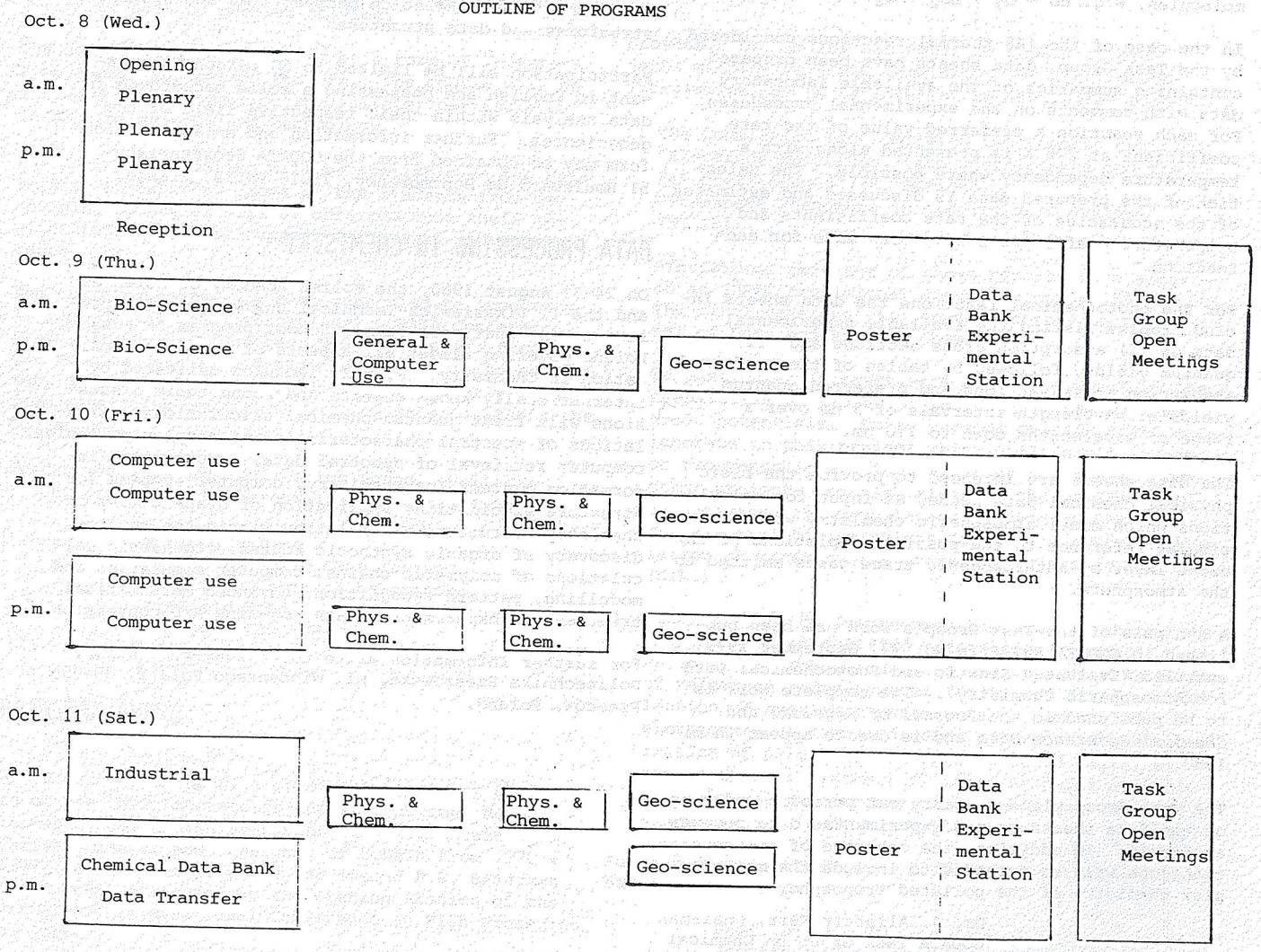
Microcomputers and the Aggregation of Field Data in the South Pacific Basin - *Sheldon C. Bachus (c/o United Nations Development Program, Western Samoa)*

The Retrieval System for the Stellar Bibliography in Japan - *Shiro Nishimura (Tokyo Astronomical Observatory, Tokyo, Japan)*

GENERAL

On a Tentative Step to find Active CODATA Coworkers in a Country - Report of a Survey - *Lodovico Riva di Sanseverino (University of Bologna, Bologna, Italy)*

OUTLINE OF PROGRAMS



For further information on the Conference and application forms, please write to Dr. Y. Mashiko, c/o Japan Society for CODATA, Dai-ichi Kanamori Bldg, 1-5-31 Yushima, Bunkyo-ku, Tokyo 113, Japan.

CODATA TASK GROUP ON CHEMICAL KINETICS

The CODATA Task Group on Chemical Kinetics has now completed an initial project of providing evaluated kinetic and photochemical rate data for reactions of relevance to atmospheric chemistry. It is well recognized that the levels of ozone in the stratosphere are controlled by the elementary (single-step) reactions of certain atoms, radicals and molecules. In all, about 150 such reactions are required to define stratospheric and unpolluted tropospheric chemistry. These reactions are conveniently classified under the following headings: (i) O_x reactions, (ii) HO_x reactions, (iii) NO_x reactions, (iv) CH_4 reactions, (v) SO_x reactions, (vi) FO_x reactions, (vii) ClO_x reactions and (viii) BrO_x reactions.

The reactions are either (a) photochemical processes in which a molecule absorbs a quantum of solar radiation and dissociates into atomic, radical or molecular fragments, e.g. $O_3 + h\nu \rightarrow O(^1D) + O_2$, or (b) thermal reactions of atoms, radicals and molecules, e.g. $HO + O_3 \rightarrow HO_2 + O_2$.

In the case of the 148 thermal reactions considered by the Task Group, data sheets have been prepared containing summaries of the available laboratory data with comments on the experimental procedures. For each reaction a preferred value of the rate coefficient at 298 K is presented along with a temperature dependency where possible. The selection of the prepared data is discussed and estimates of the accuracies of the rate coefficients and temperature coefficients have been made for each reaction.

For the photochemical reactions the data sheets include tables listing the available experimental data on (i) absorption cross sections and (ii) quantum yields, followed by tables of the preferred absorption cross sections and preferred quantum yields at wavelength intervals of 5 nm over a range of wavelengths down to 170 nm.

The data sheets are intended to provide the basic physical chemical data needed as input for calculations which model atmospheric chemistry with particular reference to the possible depletions of the ozone layer by anthropogenic trace gases emitted to the atmosphere.

A synopsis of the Task Group's work has been published in *CODATA Bulletin* No. 33, September 1979, entitled "Evaluated Kinetic and Photochemical Data for Atmospheric Chemistry". The complete work is to be published in the *Journal of Physical and Chemical Reference Data* and is due to appear in mid-1980.

The Task Group plans to carry out periodic updating of the data sheets as new experimental data becomes available. In addition, the coverage of atmospheric reactions will be extended to include the more complex chemistry of the polluted troposphere.

Dr. J. Alistair Kerr, Chairman
CODATA Task Group on Chemical Kinetics

CODATA/UNESCO/CNRS TO OFFER TRAINING COURSE ON HANDLING OF GEOSCIENCE DATA

CODATA, Unesco and the Centre National de la Recherche Scientifique will be offering a course entitled "International Training Course in the Handling of Experimental Data: Geoscience Data" at the Centre de Recherches Archéologiques located at Sophia Antipolis, Valbonne, France, from 15 to 19 December 1980.

The course is proposed as an advanced multidisciplinary training course which will focus on geoscience data handling as seen from the statistical profession. Professional statisticians will, in cooperation with geoscientists, comment upon data analysis case histories from geophysics, geology, geography, oceanography and meteorology. They will emphasize that most appearances which are recognized in geoscience data can be regarded as partial descriptions, and will show how one can look beneath them for new insights. The first three days will treat the case histories and the last two days will cover 'Evaluation, selection and transformation of raw data', 'Relation between methods of data analysis and mathematical structures', and 'Relation between time and spatial structures and data structures'.

Participation will be limited to 50 persons conversant in English and possessing a solid background in data analysis within their respective field of the geosciences. Further information and an application form may be obtained from the CODATA Secretariat, 51 Boulevard de Montmorency, 75016 Paris, France.

DATA PROCESSING IN CHEMISTRY

On 24-31 August 1980, the Polish Academy of Sciences and the I. Likasiewicz Technical University will present an International Summer School program in Reszow, Poland covering almost all aspects of computer application in Chemistry. Plenary lectures delivered by internationally known experts and round-table discussions will treat quantum-chemical calculations, calculations of spectral characteristics of complex molecules, computer retrieval of spectral data, computerized information systems for chemistry, computer systems for structure elucidation, application of graph theory in chemistry, structure manipulation within the machine, discovery of organic synthetic routes, stochastic calculations of polymeric chains, computer simulation and modelling, pattern recognition, advanced mathematical treatment of experimental data, on-line A/D-conversion.

For further information write to Professor Z. Hippe, Politechnika Rzeszowska, ul. Wincentego Pola 2, 35-959 Rzeszów, Poland.

TRAINING COURSE ON DATA DISSEMINATION

With the sponsorship of ICSU-CODATA, Unesco and the Japan Society for CODATA, a course on the accessibility and dissemination of data will be held at the University of Tsukuba, Japan during the first week of October, 1980.

The objectives of the course are:-

- to review the current and future role of numerical data as a component of the activity of information service organizations
- to describe the range of data resources and services currently available to users of numerical data
- to analyse the particular problems of data dissemination and how they differ from problems encountered in the dissemination of other kinds of information
- to examine the factors involved in the application of data to problem solving.

The course will be conducted by a team of lecturers from Japan, Europe and the USA. The course will be intended for information specialists, particularly in applied science and technology.

Low-cost accommodation will be available at the University of Tsukuba. Some of the students from developing countries will be offered, upon their application, financial support for travel and subsistence.

The training course has been scheduled to immediately precede the 7th International CODATA Conference, Kyoto, Japan, 8-11 October 1980, which will focus on the role of data in a dynamic world; it is hoped that many of the course participants, particularly those from developing countries, will be able to attend the Conference.

Further details and application forms, available 1 February 1980, can be obtained by writing to:-

Dr. D.G. Watson
Crystallographic Data Centre
University Chemical Laboratory
Lensfield Road
Cambridge CB2 1EW
England.

BRIDGMAN AWARD

Professor Boris Vodar, a physicist, Honorary Directo of the CNRS Laboratoire des Interactions Moléculaires et des Hautes Pressions at Villetaneuse (near Paris), France, and President of CODATA from 1970 - 1974, was the recipient of the second P.W. Bridgman Award Medal presented at the Opening Session of the 7th AIRAPT International Conference on High Pressures on July 30, 1979.

The Award is named for the Nobel Laureat Percy William Bridgman; the first recipient in 1977 was Professor H. Drickamer of the University of Illinois, U.S.A.

Boris Vodar has been a pioneer in the use of high pressure experimentation for elucidating the laws of intermolecular interactions. He has developed ingenious new methods for high pressure physics, particularly in the field of spectroscopy. Discoveries of fundamental importance were the results of his work. He has created a high pressure laboratory of worldwide reputation and has stimulated a great number of young scientists to work successfully in very different areas of high pressure applications.

Boris Vodar has had outstanding success over many years in promoting the international cooperation of physicists, chemists, engineers and geologists in the field of high pressure research.

IUPAC COMMISSION FOR ELECTROCHEMISTRY

Professor Dr. N. Ibl has notified CODATA of projects within the IUPAC Commission for Electrochemistry which may be of interest to Newsletter readers.

1. The Commission has completed two reports entitled: "Electrode reactions, rate coefficients and transfer coefficients" (R. Parsons).
   "Transport Phenomena in electrolytic systems" (N. Ibl).

   Provisional versions of these reports have appeared as IUPAC provisional documents number 59 and 60. The final versions will appear shortly in the Journal of Pure and Applied Chemistry.

2. Of particular interest is a current project on the preparation of tables of selected values of electrode potentials. Forty persons outside IUPAC collaborate in this project which will result in one or two years in a volume of about 500 pages. Two other projects are also close to the CODATA field of activity: the compilation of conductance data for electrolytic solutions (Justice) and the compilation of kinetic parameters for electrode reactions (Niki).

3. Other current or future projects are: a) absorption phenomena at electrified interfaces (Trasatti, Parsons); b) recommendations regarding the selection of reference redox systems (Gritzner, Kuta); c) collection of available parameters on semi conductor electrodes; d) standard redox systems and generalization of acid base concepts to fused salts; e) non isothermal systems; f) ionic transfer at ionic crystals; g) electrochemical methods for studying kinetics; h) electrocrystallization.

Further details about any of these activities may be had by writing to:-

Prof. Dr. N. Ibl
Technisch-Chemisches Laboratorium
ETH -Zentrum
CH - 8092 Zurich, Switzerland.

CODATA NATIONAL COMMITTEES

Several CODATA National Committees have recently been reorganized and we are pleased to list herewith the new composition of four of these Committees:

FEDERAL REPUBLIC OF GERMANY

Dr. Manfred Schönberg, Chairman
HOECHST A.G.
Postfach 80 03 20
6230 Frankfurt 80

Dr. Robert Abbel (information and documentation)
Gesellschaft für Information und Dokumentation (GID)
Herriotstr. 5
6000 Frankfurt 71

Dr. Heinrich Behrens (physics)
FIZ Energie, Physik, Mathematik GmbH
7514 Eggenstein-Leopoldschafen 2

Dr. R. Eckermann (chemistry)
Deutsche Gesellschaft für Chemisches Apparatewesen (DECHEMA)
Theodor-Heuss-Allee 25
6000 Frankfurt 97

Prof. Dr. Karl Esser (biology)
Ruhr-Universität Bochum
Postfach 2148
4630 Bochum

Prof. Dr. G. Gabert (geo-sciences)
Bundesanstalt für Geowissenschaften und Rohstoffe
Postfach 51 01 53
3000 Hannover 51

Dr. Gerd Hartmann (aeronomy)
Max-Planck-Institut für Aeronomie
3411 Katlenburg-Lindau 3

Prof. Dr. Friedrich Kohler (thermodynamics)
Institut für Thermo- und Fluiddynamik der Ruhr-Universität
Postfach 10 21 48
4630 Bochum

GERMAN DEMOCRATIC REPUBLIC

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Zentralinstitut für physikalische Chemie der Akademie der Wissenschaften der DDR
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Zentralinstitut für physikalische Chemie der Akademie der Wissenschaften der DDR
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Berlin

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Amt für Standardisierung, Messwesen und Warenprüfung
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Berlin

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Zentralinstitut für solarterrestrische Physik der Akademie der Wissenschaften der DDR
Potsdam

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Merseburg

Prof. Dr. W. Fratscher
Technische Hochschule "Carl Schorlemmer" Leuna-Merseburg, Sektion Verfahrenstechnik
Merseburg

Frau Dr. S. Schmidt
VEB Chemieanlagenbaukombinat Leipzig-Grimma
Leipzig

Dr. U. König
Institut für Leichtbau
Dresden

Dr. G. Liessman
VEB "Otto Grotewohl" Böhlen
Böhlen

Dr. K. Schaarschmidt
Technische Universität Dresden
Dresden

Prof. Dr. H. Schuberth
Martin-Luther-Universität Halle-Wittenberg
Halle

Dr. F. Freydank
VEB Leunawerke "Walter Ulbricht"
Leuna

JAPAN

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College of Information Science, Sakura-mura, Ibaraki-ken 300-31

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Faculty of Science, University of Tokyo
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Osaka University
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Science University of Tokyo
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Australian Road Research Board
P.O. Box 156
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Department of Science
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Dr. B. Yates
Australian Science and Technical Library
P.O. Box E333
Canberra ACT. 2600

P. Vallee, Librarian
Australian Academy of Science
P.O. Box 783
Canberra City ACT. 2601

NEW PUBLICATIONS

BIOLOGICAL SCIENCES

AUSTRALIAN BIOTAXONOMIC INFORMATION SYSTEM: INTRODUCTION AND DATA INTERCHANGE STANDARDS (1979, 25 pp, Australian Government Publishing Service, Canberra, Australia) by J.R. Busby. Standard interchange format and procedures used to manage the storage and retrieval of information on the identity and recorded locations of Australian animals and plants.

CHEMICAL KINETICS

CHEMICAL KINETIC DATA NEEDS FOR MODELING THE LOWER TROPOSPHERE (1979, 105 pp, $4.00, U.S. Govt. Printing Office, Washington, D.C. 20402, SD Stock No. SN003-003-02111-3) edited by J.T. Herron, R.E. Huie and J.A. Hodgeson. Proceedings of a workshop on chemical kinetic data needs for modeling the lower troposphere, held at Reston, Virginia, May 1978. The meeting focussed on six key problem areas in tropospheric chemistry: reactions of olefins with hydroxyl radicals and ozone, reactions of aldehydes, free radical reactions, reactions of oxides of nitrogen, reactions of aromatic compounds, and reactions of oxides of sulfur. Includes a summary and list of major recommendations for further work, review papers, discussion summaries, contributed comments, recommendations, and an attendance list.

EVALUATED KINETIC AND PHOTOCHEMICAL DATA FOR ATMOSPHERIC CHEMISTRY (1979, 15pp, $7.50, CODATA Bulletin No. 33, CODATA Secretariat, Paris) by CODATA Task Group on Data for Chemical Kinetics. Summary of a larger article to be published in the *Journal of Physical and Chemical Reference Data,* presenting summary lists of gas phase chemical reactions of neutral species involved in middle atmosphere (10-55 km altitude) chemistry.

RATE COEFFICIENTS FOR ION-MOLECULE REACTIONS - ORGANIC IONS OTHER THAN THOSE CONTAINING ONLY C AND H (1979, 27pp, $1.30, U.S. Govt. Printing Office, Washington, D.C., Stock No. 003-003-02027-3) by L.W. Sieck. Covers the literature from 1960 to 1979 and both positive and negative ions are considered. 577 reaction-partners are tabulated. Preferred values are suggested for a number of these processes.

RATE CONSTANTS FOR REACTIONS OF INORGANIC RADICALS IN AQUEOUS SOLUTIONS (1979, 62 pp, U.S. Govt. Printing Office, Washington, D.C. 20402, SD Stock No. 003-003-02072-9, $3.50) by A.B. Ross and P. Neta. Rate constants have been compiled for reactions of various transient inorganic radicals produced by radiolysis or photolysis in aqueous solution. Data are included for the carbonate radical, sulfate radical, phosphate radical, nitrate radical and other nitrogen-, sulphur- and selenium-containing radicals, and the halide and pseudohalide radicals Cl_2^-, Br_2^-, I_2^-, and $(SCN)_2^-$

CHEMISTRY

BEILSTEIN HANDBOOK OF ORGANIC CHEMISTRY
BEILSTEINS HANDBUCH DER ORGANISCHEN CHEMIE
The following books are available from Springer-Verlag New York Inc., 175 Fifth Avenue, New York, N.Y. 10010, U.S.A. or Springer-Verlag KG, Abt. 4005, Heidelberger Platz 3, D-1000 Berlin 33, West-Deutschland.

Volume 3. Acyclic hydroxycarboxylic and oxocarboxylic acids.
- Part 1 (1977, 615 pp, $449.30).
- Part 2 (1977, 970 pp, $712.80).
- Part 3 (1979, 734 pp, DM 1035.-).

Volume 4. Acyclic sulfinic and sulfonic acids; Acyclic amines.
- Part 1 (1977, 1097 pp, $806.80).
- Part 2 (1979, 1355 pp, DM 1580).

Volume 5. Isocyclic hydrocarbons.
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- Part 2 (1978, 798 pp, $618.90).
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Volume 6. Isocyclic hydroxy-compounds.
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Volume 19. Heterocyclic compounds with two and more ring-chalcogen atoms.
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- Part 4 (1977, 978 pp, $717.20).
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- Part 6 (1977, 951 pp, $674.00).
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- Part 1 (1977, 919 pp, $678.30).
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- Part 5 (1979, 870 pp, DM 1030.-).
- Part 6 (1979, 829 pp, DM 1030.-)

JOURNAL OF PHYSICAL AND CHEMICAL REFERENCE DATA VOL. 8 (1979, 1330 pp, $100 for U.S., Canada and Mexico, $104 other countries, special rates for members ACS or AIP, American Chemical Society, Subscription Service, 1155 16th St., Washington, D.C. 20036), edited by David R. Lide, Jr. Contents: Energy Levels of Titanium, Ti I through Ti XXII by Charles Corliss and Jack Sugar; The Spectrum and Energy Levels of the Neutral Atom of Boron (B I) by G.A. Odintzova and A.R. Striganov; Relativistic Atomic Form Factors and Photon Coherent Scattering Cross Sections by J.H. Hubbell and I. Øverbø; Microwave Spectra of Molecules of Astrophysical Interest, XIV. Vinyl Cyanide (Acrylonitrile) by M.C.L. Gerry, K. Yamada, and G. Winnewisser; Molten Salts: Volume 4, Part 4, Mixed Halide Melts, Electrical Conductance, Density, Viscosity, and Surface Tension Data by G.J. Janz, R.P.T. Tomkins and C.B. Allen; Atomic Radiative and Radiationless Yields for K and L Shells by M.O. Krause; Natural Widths of Atomic K and L Levels, Kα X-ray Lines and Several KLL Auger Lines by M.O. Krause and J.H. Oliver; Electrical Resistivity of Alkali Elements by T.C. Chi; Electrical Resistivity of Alkaline Earth Elements by T.C. Chi; Vapor Pressures and Boiling Points of Selected Halomethanes by A.P. Kudchadker, S.A. Kudchadker, R.P. Shukla and P.R. Patnaik; Ideal Gas Thermodynamic Properties of Selected Bromoethanes and Iodoethane by S.A. Kudchadker and A.P. Kudchadker; Thermodynamic Properties of Normal and Deuterated Naphthalenes by S.S. Chen, S.A. Kudchadker and R.C. Wilhoit; Microwave Spectra of Molecules of Astrophysical Interest. XV. Propyne by A. Bauer, D. Boucher, J. Burie, J. Demaison and A. Dubrulle; A Correlation of the Viscosity and Thermal Conductivity Data of Gaseous and Liquid Propane by P.M. Holland, H.J.M. Hanley, K.E. Gubbins and J.M. Haile; Errata; Microwave Spectra of Molecules of Astrophysical Interest. XVI. Methyl Formate by A. Bauder; Molecular Structures of Gas-Phase Polyatomic Molecules Determined by Spectroscopic Methods by Marlin D. Harmony, Victor W. Laurie, Robert L. Kuczkowski, R.H. Schwendeman, D.A. Ramsay, Frank J. Lovas, Walter J. Lafferty and Arthur G. Maki; Critically Evaluated Rate Constants for Gaseous Reactions of Several Electronically Excited Species by Keith Schofield; A Review, Evaluation, and Correlation of the Phase Equilibria, Heat of Mixing, and Change in Volume on Mixing for Liquid Mixtures of Methane + Ethane by M.J. Hiza, R.C. Miller and A.J. Kidnay; Energy Levels of Aluminum, Al I through Al XIII by W.C. Martin and Romuald Zalubas; Energy Levels of Calcium, Ca I through Ca XX by Jack Sugar and Charles Corliss; Comments: Simplification of Thermodynamic Calculations Through Dimensionless Entropies by Kenneth S. Pitzer and Leo Brewer; Evaluated Activity and Osmotic Coefficients for Aqueous Solutions: Iron Chloride and the Bi-univalent Compounds of Nickel and Cobalt by R.N. Goldberg, R.L. Nuttall and B.R. Staples; Evaluated Activity and Osmotic Coefficients for Aqueous Solutions: Bi-univalent Compounds of Lead, Copper, Manganese, and Uranium by Robert N. Goldberg; Microwave Spectra of Molecules of Astrophisical Interest. XVII. Dimethyl Ether by F.J. Lovas, H. Lutz and H. Dreizler; Energy levels of Potassium, K I through K XIX by Charles Corliss and Jack Sugar; Electrical Resistivity of Copper, Gold, Palladium, and Silver by R.A. Matula.

EARTH SCIENCES

FOURTH CONSOLIDATED GUIDE TO INTERNATIONAL DATA EXCHANGE (1979, 113 pp, ICSU Panel on WDCs, c/o National Academy of Sciences, 2101 Constitution Avenue, N.W., Washington, D.C. 20418). This guide details the collection, exchanges and publications of the World Data Centre of data in the following areas: solar-terrestrial physics, rockets and satellites, meteorology, oceanography, glaciology (snow and ice), and solid-earth geophysics.

ENERGY

A LOW ENERGY STRATEGY FOR THE UNITED KINGDOM (1979, 259 pp, Science Reviews Ltd., London) by G. Leach, C. Lewis, F. Romig, A.van Buren and G. Foley. The authors argue that with the help of sensible and practicable measures for saving energy and for increasing the efficiency of the conversion and the use of energy the United Kingdom's prime energy consumption could remain very roughly constant up until 2025 - and that this could be achieved without interfering with the mode of life or the projected economic growth rate.

The justification for mentioning this book in a CODATA Newsletter is that it contains a wealth of technical and statistical data relating to energy albeit for one country only, and moreover, that the selection of the data can serve as a model for other, similar compilations. The Tables and diagrams cover many aspects as indicated by the following random list: Energy intensiveness (MJ/£ output) of various industries, Thermal characteristics of houses, Characteristics of solar collectors in U.K. conditions, Traffic energy intensiveness (MJ/passenger km.) in U.K. Transports, Energy intensiveness of road and rail freight transport, Performance characterization of electric vehicles etc., etc. N. Kurti.

N. Kurti

PHYSICAL PROPERTIES DATA COMPILATIONS RELEVANT TO ENERGY STORAGE (National Standard Ref. Data Series, National Bureau of Standards 61).

Part I: Molten Salts Eutectic Data (March 1978, 244 pp, $4.25) by G.J. Janz, C.B. Allen, J.R. Downey, Jr. and R.P.T. Tomkins.

Part II: Molten Salts: Data on Single and Multi-Component Salt Systems (April 1979, 442 pp, $3.25) by G.J. Janz, C.B. Allen, N.P. Bansal, R.M. Murphy and R.P.T. Tomkins.

Part III: Engineering Properties of Single and Polycristalline Sodium Beta and Beta"-Alumina (June 1979, 19 pp, $1.25).

This series of publications is aimed at providing physical properties data on materials used in energy storage systems.

HANDBOOKS

DATA HANDBOOK FOR CLAY MATERIALS AND OTHER NON-METALLIC MINERALS (1979, 360 pp, $60, Pergamon Press) edited by H. Van Olphen and J.J. Fripiat. Reference clay materials and some other non-metallic minerals, e.g. gibbsite, calcite, magnetite, gypsum,

available from the University of Missouri, the Laboratoire de Mineralogie du Muséum National d'Histoire Naturelle, Paris and the National Bureau of Standards, Washington, have been analyzed for chemical, physical and mineralogical data. Part 1 presents the data by sample and Part 2 presents the data by the property measured. An essential work of reference for those involved in R & D involving clay materials including persons working on ceramics, soils, cosmetics, geology, petroleum exploration and production engineering, and paper.

MECHANICAL AND ENGINEERING DATA

A CRITICAL COMPILATION OF COMPRESSIBLE TURBULENT BOUNDARY LAYER DATA (1977, 480 pp, AGARD, 7 rue Ancelle, 92200 Neuilly, France, Ref. AGARD-AG-223) by H.H. Fernholz and P.J. Finley. The compilation provides data obtained in 59 experimental studies of compressible, two-dimensional, turbulent boundary layers. The data are presented in standardised form as tables and microfiche, and are available on magnetic tape. The published descriptions of the experiments have also been standardised, and in many cases supplemented by additional information provided by the original authors, who have also supplied much, as yet, unpublished data.

NUCLEAR

PHYSIK DATEN/PHYSICS DATA (Fachinformationszentrum, 7514 Eggenstein-Leopoldshafen, F.R.G.)

Vol. 4-2: Compilation of Coupling Constants and Low-Energy Parameters. 1978 Edition (1979, 86 pp, 7.50 DM) by M.M. Nagels, T.A. Rijken, J.J. de Swart, G.C. Oades, J.L. Petersen, A.C. Irving, C. Jarlskog, W. Pfeil, H. Pilkuhn and H.P. Jacob.

Vol. 14-1: Compilation of Data from Hadronic Atoms (1979, 126 pp, 8.50 DM) by H. Poth.

Vol. 13-1: Evaluation of the cross-sections for the reactions $^{24}Mg(n,p)^{24}Na$, $^{64}Zn(n,p)^{64}Cu$, $^{63}Cu(n,2n)^{62}Cu$ and $^{90}Zr(n,2n)^{89}Zr$, (1979, 144 pp, 16.00 DM) by S. Tagesen, H. Vonach and B. Strohmaier.

Vol. 10-1: Graphs of Neutron Capture Cross Sections of Fission Product Isotopes from FPLIB 65/ENDF/B-IV (1978, 202 pp, 26.50 DM) by M. Mattes.

Vol. 12-1: Handbook of Pion-Nucleon Scattering (1979, 440 pp, 35.00 DM) by G. Höhler, F. Kaiser, R. Koch, E. Pietarinen.

Vols. 15-1 and 15-2, 15-Index: Karlsruhe Charged Particle Reaction Data Compilation (1979, 1200 pp, 149 DM) by H. Münzel, H. Klewe-Nebenius, J. Lange, G. Pfennig and K. Hemberle.

Vol. 11-1: Nucleon-Nucleon Scattering Data. Part I/II (1978, 904 pp, 62.00 DM) by J. Bystricky and F. Lehar.

PHYSICS

DATENSAMMLUNGEN IN DER PHYSIK/DATA COMPILATIONS IN PHYSICS (1978, 74 pp, 8 DM, Fachinformationszentrum, 7514 Eggenstein-Leopoldshafen, F.R.G.) by H. Behrens and G. Ebel, Vol. 3-3, supplement to Vol. 3-1 (1976) and Vol. 3-2 (1977).

SOLID STATE PROPERTIES

OPTICAL PROPERTIES OF SOME INSULATORS IN THE VACUUM ULTRAVIOLET REGION (1977, 186 pp, 16 DM, Fachinformationszentrum, 7514 Eggenstein-Leopoldshafen, F.R.G.) by R.-P. Haelbich, M. Ivan and E.E. Koch, Vol. 8-1.

THE OXYGEN FRAMEWORK IN GARNET AND ITS OCCURENCE IN THE STRUCTURES OF $Na_3Al_2Li_3F_{12}$, $Ca_3Al_2(OH)_{12}$, $RhBi_4$ and Hg_3TeO_6. (1979, 52 pp, 7.50 DM, Fachinformationszentrum, 7514 Eggenstein-Leopoldshafen, F.R.G.) by E. Hellner, R. Gerlich, E. Koch and W. Fischer, Vol. 16-1.

SPECTRA COLLECTIONS

ATLAS OF CARBON-13 NMR DATA (1979, Vol. 1, Vol. 2 + indexes, $165, £82.50, DM 378, Heyden & Son, U.K., U.S.A. and F.R.G.) by E. Breitmaier, G. Haas and W. Voelter. Covers 3017 compounds, presenting the carbon-13 shifts and multiplicities for every carbon atom in each. Alphabetical, Chemical Class, Molecular Formula, Molecular Weight and Chemical Shift Indexes.

BIBLIOGRAPHY OF MICROWAVE SPECTROSCOPY 1945 - 1975 (1977, 664 pp, Vol. 9-1, 18 DM, Fachinformationszentrum, 7514 Eggenstein-Leopoldshafen, F.R.G.) by B. Starck, R. Mutter, Ch. Spreter, K. Kettmann, A. Boggs, M. Botskor and M. Jones.

HANDBOOK OF NMR SPECTRAL PARAMETERS (1979, 990 pp, $280, £140, DM 641.50, Heyden & Son Ltd., U.K., U.S.A., F.R.G.) by Werner Brügel. Tabulated high resolution proton shifts and coupling constants for organic compounds according to Spin System. Data are classified first by the basic chemical structure of the "parent" compound, and then by the many modifications possible in substructures or substituents which enables the 7,500 compounds in this book to be applicable to hundreds of thousands of compounds. Almost 1,800 references to abstracted literature, rapid search index.

SPECTRES D'ABSORPTION ULTRAVIOLETS DE COMPOSES ORGANIQUES AZOTES ET CORRELATIONS SPECTROCHIMIQUES (Ultraviolet Absorption Spectra of Nitrogen Organic Compounds and Spectrochemical Correlations) by P. Grammaticakis.

Vol. 1 - (1977, 114 pp, 120 French francs)

Vol. 2 - (1979, 138 pp, 150 French francs, Technique et Documentation, 11, rue Lavoisier, Paris 8, France).

THERMODYNAMIC PROPERTIES

INTERNATIONAL THERMODYNAMIC TABLES OF THE FLUID STATE edited by S. Angus, K.M. de Reuch and B. Armstrong.

Vol. 1: Argon (1972, 124 pp, $24, Pergamon Press)

Vol. 2: Ethylene (1972, 230 pp, $50, Pergamon Press)

Vol. 3: Carbon Dioxide (1976, 386 pp, $55, Pergamon Press)

Vol. 4: Helium (1977, 220 pp, $35, Pergamon Press)

Vol. 5: Methane (1978, 276 pp, $44, Pergamon Press)

Vol. 6: Nitrogen (1979, 268 pp, $60, Pergamon Press)
Vol. 7: Propene (Propylene) (1979, 220 pp, $32, Pergamon Press).

LIQUID-LIQUID EQUILIBRIUM DATA COLLECTION Vol. V, Part 1: Binary Systems (1979, 660 pp, 150 DM, DECHEMA, Frankfurt/Main, F.R.G.) by J.M. Sørensen and W. Arlt. Contains experimental and smoothed binary data on mixtures with water, hydrocarbons, alcohols, ketones, ethers, esters, organic acids, amines, nitriles, halogenated and sulphur containing hydrocarbons, and other non-polymeric organic compounds.

THERMAL CONDUCTIVITY OF AQUEOUS NaCl SOLUTIONS FROM 20°C TO 330°C (1979, 22 pp, $6.00, NTIS, 5285 Port Royal Road, Springfield, VA 22161) by H. Ozbek and S.L. Phillips. An evaluation of published data from 1929 through 1979 on the thermal conductivity of aqueous NaCl solutions is presented. The data were corrected where necessary to a set of internally consistent units of °C, watts/m-°C and molal concentrations. An empirical correlation equation with an average deviation of ±2% is given for the thermal conductivity of aqueous NaCl solutions from 20°C to 330°C at saturation pressure.

VAPOR-LIQUID EQUILIBRIUM DATA COLLECTION Vol. 1, Parts 3/4 - Aldehydes and Ketones, Ethers (1979, 624 pp, $111, 168 DM, DECHEMA, Frankfurt/Main, F.R.G.) by J. Gmehling, U. Onken and W. Arlt). Tables and diagrams of data for binary and multicomponent mixtures up to moderate pressures. Constants of correlation equations for computer use.

MISCELLANEOUS

A GUIDE TO THE LITERATURE OF CHROMATOGRAPHY AND ELECTROPHORESIS (1979, 23 pp, Messrs. Whatman Ltd., Springfield Mill, Maidstone, Kent ME14 2LE, U.K., free of charge) by R.W.A. Oliver and M. Corrie. List of bibliographies up to 1977 on electrophoretic methods, gas liquid chromatography, ion-exchange chromatography, liquid column chromatography, paper chromatography, paper or thin-layer chromatography, general chromatography.

DATA HANDLING FOR SCIENCE AND TECHNOLOGY: AN OVERVIEW AND SOURCEBOOK (1980, 184 pp, $25, North Holland Publishing Company, Amsterdam, New York, Oxford) edited by D.G. Watson and S.A. Rossmassler. Contents: Data Generation, Treatment of Data in the Biosciences, Treatment of Observational Data in the Geosciences: Estimation and Approximation of Data, Analysis and Interpretation of Data, Presentation of Data in the Primary Literature, Compilation and Evaluation of Data, Standards and Guidelines for Data, Use of Computers in Handling of Laboratory Data, Accessibility and Dissemination of Data, National and International Data Programs, The Unesco General Information Programme, UNISIST Programme Activities and CODATA and CODATA Conferences. This book will prove an invaluable tool to anyone interested in scientific data.

ARIST 1980 - CALL FOR PAPERS

The chapter content and authors for Volume 15 of the *Annual Review of Information Science and Technology* (ARIST) to be published in October 1980 have been selected. Since ARIST reviews and evaluates the current literature in information science, ARIST chapter authors have the formidable job of searching the literature and selecting, reviewing, and analyzing relevant papers, reports, and other materials for their chapters.

"ARIST authors would greatly appreciate receiving copies of papers relating to the subject matter of their chapters", says Martha E. Williams, Editor of ARIST. "If you have written any papers that you would like to submit for review, please send them to the appropriate ARIST author(s)". Chapter titles with author names and addresses are:

Information Communication Technology. Anthony E. Cawkell, 17 The Drive, Ickenham, Oxbridge, Middlesex, England: phone 011-44-895-52704.

Techniques and Measures for Information Storage and Retrieval. Belver C. Griffith, School of Library and Information Science, Drexel University, Philadelphia, PA 19104: phone 215/895-2000.

Numeric Data Bases. Viktor Hampel, Mailstop 316, Lawrence Livermore Laboratory, University of California, Livermore, CA 94550: phone 202/557-8722.

Copyright. Michael Keplinger, Copyright Office, Library of Congress, Washington, DC 20559: phone 202/557-8722.

Information Systems in Developing Countries. Carl Keren, National Center of Scientific and Technological Information, National Council for Research and Development, Ministry of Energy and Infrastructure, 84 Hachashmonaim Street, Tel Aviv 61 200, Israel.

Legal Information Systems and Services. Jack Lass, National Criminal Justice Reference Service, 1015 20th Street, N.W., Suite 400, Washington, DC 20036: phone 202/862-2900.

Artificial Intelligence Applications for Information Retrieval. Linda Smith, Graduate School of Library Science, University of Illinois, Champaign, IL: phone 217/333-7742.

Information Analysis Centers. Bonnie Talmie, P.O. Box 141, Oak Ridge, TN 37830: phone 615/482-6922.

Computers in Publishing. Seldon Tarrant, American Chemical Society, 1155 Sixteenth Street, N.W., Washington, DC 20036: phone 202/872-4600.

Library Automation. Velma Veneziano, Northwestern University Library, Evanston, IL 60201: phone 312/492-7644.

Emerging Careers in Information Science and Technology. Isaac Welt, Center for Technology and Administration, American University, Washington, DC 20016: phone 202/686-2513.

JOINT FRENCH-ISRAELI INTERDISCIPLINARY SYMPOSIUM

On 5-6 March 1980 the French National CODATA Committee and the Israel National CODATA Committee organized a joint Symposium on "Problems in the Treatment of Numerical Data" in Jerusalem at the Israel Academy of Science and Humanities.

The scientific program was divided into four sections: Environmental Sciences, Geological Sciences, Agricultural Sciences and Medical Sciences and the following communications were presented:

Environmental Sciences

Towards the Establishment of Computerized Data Systems for Environmental Management Processes - R. Etzion, Israel
Data Processing Analysis of the Israeli National Air Quality Monitoring System - M. Graber, Israel
The Principal Offshore Oil-Spill Accidents and Tankers Casualties Data Bank (1955-1980), compiled by I.F.P. - A. Bertrand, France
Epidemiologic Study of Wastewater Irrigation in Kibbutzim in Israel - B. Fattal, Israel
A Model of Traffic and Aircraft Noise - N. Moses and O. Arnon, Israel

Geological Sciences

Data Collection, Banking, Processing and Display in Information Systems for Earth Sciences - Ph. Grandclaude, France
State-of-the-Art in Data Processing and Sharing in Marine Geophysics and Prospects for the Future - J.K. Hall, Israel
Digital Processing of Space Imagery for Topographic and Thematic Mapping (the French SPOT Project) - A. Baudouin, France
Automated Mapping and Geographic Data Bases - the Present Conceptual State-of-the-Art and Future Trends - A. Degani, Israel
Planning of an Interdisciplinary Bank on High Pressure Data - B. Vodar, France

Agricultural Sciences

Selection of Appropriate Bases of Calculation for the Evaluation of Data in Plant Science and Agriculture - S.P. Monselise, Israel
National Information Centre on Veterinary Toxicology: Aims and Data Management Means - G. Keck, G. Lorgue, D. Courtot and Ph. Jaussaud, France
Sampling and Methodological Problems in Nutritional Studies with Ruminants - D. Ben-Ghedalia, Israel
Quantitative Evaluation of Pathology and Mortality Data - Y. Dror, I. Bartov and I. Dror, Israel
Substrates and Containers Cultures - H. Moulinier, France

Medical Sciences

Is Medicine Art or Science - M. Modan and H. Halkin, Israel
Development of Conversational and Direct Programming in ERGODATA, International Biometric and Ergonomic Data Bank - A. Coblentz, G. Ignazi, M. Amphoux and J. Boudard, France
Construction of a Medical Data Base Aimed to Process and Analyze Results of Therapy - M. Snyder and B. Lunenfeld, Israel
Analysis of Between and Within Laboratory Quality Control Data - P. Hall and A. Eshkol, Israel
Practical Use of a Drug Data Bank H. Ducrot, France
French Policy in the Field of Data Banks - S. Chambaud

The full proceedings of this Symposium will appear as a *CODATA Bulletin* in 1980.

FRANCE TO LAUNCH PILOT PROJECTS FOR DATA BANKS

The MIDIST (Mission Interministerielle de l'Information Scientifique et Technique), formerly the BNIST, has awarded 20 data bank projects financial assistance for 1980. Those covering scientific subjects are as follows: Composition and properties of plastics, enzyme technology, composition and properties of textile fibers, data on non-polluting technologies, data on liquid crystals, hydrogen embrittlement, geochemical data, nuclear and radioactivity data, data on hypertension, data on materials, products and methods used in biological medicine, data on the idiopathic thrombopenic purpura, data on glycopeptic immunomodulators, data on veterinary medicine, "out of soil" substrates and cultures, spontaneous or introduced forest populations, data on tropical sylviculture, chemical reactions applied to the family of ketones. For further information on these projects write to MIDIST, 8-10 rue Crillon, 75194 Paris Cedex 04, France.

DATA CENTERS ESTABLISHED TO AID COAL CONVERSION INDUSTRY

The National Bureau of Standards in cooperation with the U.S. Department of Energy has established two information centers to collect, evaluate and disseminate data on the performance and properties of materials used in plants converting coal to alternate energy forms. The Failure Information Center maintains a central source of information on the performance, especially the failures of materials and components used in coal conversion environments to help industry members extend the useful life and reliability of those components. The Materials Properties Data Center will provide an integrated data base for construction materials to aid the industry in the design, construction, and operation of coal conversion plants. For further information write to Ronald C. Dobbyn, Fracture and Deformation Division, B120 Materials Building, and Helen Ondik, Ceramics, Glass, and Solid State Science Division, A221 Materials Building, National Bureau of Standards, Washington D.C., U.S.A.

Reprinted from *Dimensions*

CODATA PUBLICATIONS

Proceedings : Third International CODATA Conference : Le Creusot, France 26-30 June 1972, 100 pp, CODATA Secretariat, US $15.
Fourth International CODATA Conference : Tsakhcadzor, USSR, 24-27 June 1974, 171 pp, Pergamon Press. US $ 25.
Fifth International CODATA Conference : Boulder, USA, 28 June-1 July, 1976, 642 pp, Pergamon Press, US $ 70.
Sixth International CODATA Conference : Santa Flavia, Italy, 22-25 May 1978, 433 pp, Pergamon, US $ 95.

CODATA Newsletter - distributed free of charge on an irregular basis.

CODATA Bulletin : Annual subscription : US $ 20 or 100 French Francs.

No 1 (Oct. 1969), 12 pp, *Automated Information Handling in Data Centers, US $ 1.50, superseded by Bulletin No 4.*

Nos 2, 5, 6, 7, 10, 17 and 22, superseded by Bulletin No 28.

No 3 (Dec. 1971), 28 pp, *A Catalog of Compilation and Data Evaluation Activities in Chemical Kinetics, Photochemistry and Radiation Chemistry*, US $ 3.50.
(Report of the CODATA Task Group on Data for Chemical Kinetics).

No 4 (Dec. 1971), 12 pp. *Automated Information Handling in Data Centers*, US $ 1.50 2nd Edition.
(Report of the CODATA Task Group on Computer Use, Nov. 1971).

No 8 (Nov. 1972), 32 pp, *Geological Data Files : Survey of International Activity*, US $ 3.50.
(Report of COGEODATA, Committee on Storage, Automatic Processing and Retrieval of Geological Data of the International Union of Geological Sciences (IUGS).

No 9 (Dec. 1973), 6 pp, *Guide for the Presentation in the Primary Literature of Numerical Data Derived from Experiments*, US $ 1.50.
(Report of the CODATA Task Group on Presentation of Data in the Primary Literature, Sept. 1973).

No 11 (Dec. 1973), 8 pp, *Recommended Consistent Values of the Fundamental Physical Constants, 1973*
(Report of the CODATA Task Group on Fundamental Constants, August 1973).

No 12 (Sept. 1974), 12 pp, *Energy Data Accessing and/or Retrieval*, US $ 1.50.
(Report on Data Tagging, compiled by a Panel of Experts at the Energy R & D Data Workshop held at Gaithersburg, Md, May 6-7, 1974).

No 13 (Dec. 74), 8 pp, *The Presentation of Chemical Kinetics Data in the Primary Literature*, US $ 1.50.
(Report of the CODATA Task Group on Data for Chemical Kinetics).

No 14 (Feb. 1975), 180 pp, *Proceedings of the Fourth International CODATA Conference on the Generation, Compilation, Evaluation and Dissemination of Data for Science and Technology* (Tsakhcadzor, U.S.S.R., June 1974), US $ 17.00.

No 15 (March 1975), 32 pp, *Man-Machine Communication in Scientific Data Handling*, US $ 5.00.
(Proceedings of the Symposium sponsored by the CODATA Task Group on Computer Use, Freiburg im Breisgau, F.R.G., July 1973).

No 16 (October 1975), 32 pp, *Study on the Problems of Accessibility and Dissemination of Data for Science and Technology*
(Report of the CODATA Task Group on Accessibility and Dissemination of Data), US $ 5.00.

No 18 (April 1976), 44 pp, *Abstracts - Fifth International CODATA Conference*, US $ 5.00.

No 19 (June 1976), 22 pp, *Flagging and Tagging Data*, US $ 5.00.
(Report of the ICSU AB/CODATA Joint Working Group).

No 20 (Sept. 1976), 16 pp, *Recommendations for Measurement and Presentation of Biochemical Equilibrium Data*, US $ 5.00.
(Report of the ICSU Interunion Commission on Biothermodynamics).

No 21 (Oct. 1976), 122 pp, *Proceedings of the Plenary Sessions Fifth International CODATA Conference*, US $ 7.50.

No 23 (May 1977), 42 pp, *Selected Papers Relevant to Energy Presented at the 5 th International CODATA Conference*, US $ 5.

No 24 (June 1977), 42 pp, *CODATA Directory of Data Sources for Science and Technology, Chapter 1 : Crystallography*, US $ 10.

No 25 (Nov. 1977), 5pp, *Biologists' Guide for the Presentation of Numerical Data in the Primary Literature*, US $ 1.50.
(Report of the CODATA Task Group on the Presentation of Biological Data in the Primary Literature).

No 26 (Jan. 1978), 37 pp, *International Training Courses in the Handling of Experimental Data*, US $5.00.
(Report of the CODATA Task Group on International Training Courses in the Handling of Experimental Data).

No. 27 (March 1978), 40 pp, *Abstracts-6th International CODATA Conference*, US $5.00

No 28 (April 1978), 17 pp, *CODATA Recommended Key Values for Thermodynamics 1977*, US $5.00.
(Report of the CODATA Task Group on Key Values for Thermodynamics)

No 29 (Nov. 1978), 64 pp. *Selected Papers on Natural and Man-Made Hazards and Related Questions from the 6th International CODATA Conference*, US $10.00.

No 30 (Dec. 1978), 6 pp, *Guide for the presentation in the primary literature of physical property correlations and estimation procedures*, US $1.50.
(Report of the CODATA Task Group on Data for the Chemical Industry)

No 31 (Mar 1979) 30 pp, *Data Needs for Energy*, US $ 7.50.

No 32 (Aug. 1979), 6 pp, *Guide for the Presentation in the Primary Literature of Numerical Data Derived from Observations in the Geosciences*, US $ 1.50.

No 33 (Sep. 1979), 16 pp, *Evaluated Kinetic and Photochemical Data for Atmospheric Chemistry*, US $ 7.50.
(Report of the CODATA Task Group on Chemical Kinetics)

No 34 (Nov. 1979), 12 pp, *Interactive Computer Graphics : An Overview*, US $ 3.00.
(Report of the CODATA Task Group on Computer Use)

No 35 (Dec. 1979), 91 pp, *CODATA Directory of Data Sources for Science and Technology, Chapter 2 : Hydrology*, US $ 10.00.

No 36 (Jan. 1980), 56 pp, *CODATA Directory of Data Sources for Science and Technology. Chapter 3 : Astronomy*, US $ 10.00.

BULLETIN

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