

HARCS & SPARKS

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for the advancement of Spectroscopy

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Season's
Greetings

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A review of recognition given recently to those who contributed an extra measure to the advancement of spectroscopy.

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Spectroscopist - of - the - Month



Louis H. Ahrens

Our Spectroscopist-of-the-Month has spent most of his life in South Africa and is currently a Professor of Geochemistry at the University of Cape Town. This remoteness from other scientific centers of the world has by no means limited his contributions. He has traveled extensively as an invited speaker to symposia held in countries throughout the world and has written many published works. His dedication to science has resulted in many remarkable achievements which we can only begin to mention here.

Louis Herman Ahrens was born in Pietermaritzburg, Natal, South Africa, earned his B.Sc. in chemistry and geology at the University of Natal, his D.Sc. at the University of Pretoria and an M.A. degree at the University of Oxford in England. His career began in 1940 as an analytical chemist at the Government Metallurgical Laboratory (now the National Institute of Metallurgy) in Johannesburg. From 1946 to 1953 he was at Massachusetts Institute of Technology, first as a Post-Doctoral Research Fellow of the Council for Scientific and Industrial Research of South Africa. Later he served as a Research Associate in the Department of Geology and an Assistant Professor of Geology and Geophysics. In 1954 he became a Reader in Mineralogy at the University of Oxford. In 1956 he returned to South Africa to

take a position as Professor of Inorganic and Physical Chemistry at the University of Cape Town. Since 1961 he has served as Professor of Geochemistry at the university.

Professor Ahrens also served as Visiting Professor at M.I.T. from October, 1962 to May, 1963; and as Guest Professor at Gottingen University during the summer of 1963.

Professor Ahrens has authored four publications: *Spectrochemical Analysis* (Addison-Wesley, 1950), and the second edition of this book, with S. R. Taylor, in 1961; *Quantitative Spectrochemical Analysis of Silicates* (Pergamon Press, 1954); and *Distribution of the Elements in Our Planet* (McGraw Hill, 1965).

Since 1942 he has authored or co-authored 123 papers, covering such topics as spectrochemical methods of analysis; radioactive methods of estimating geological age; geochemistry — distribution of the elements in rocks and meteorites; ionization potentials in chemistry; and nuclear structure. Two of his books and 24 papers are devoted entirely to spectrochemical techniques for analysing rocks and minerals. The earlier papers deal mainly with direct DC arc excitation of powdered rock and mineral specimens (no pre-enrichment), whereas

more recent works are concerned primarily with the estimation of very low concentrations of elements, for which some pre-enrichment is necessary. Such enrichment has been achieved either by ion exchange (cation or anion) or solvent extraction. In several papers on geochemistry and geological age, spectrochemical techniques are described and applied.

Professor Ahrens has received many awards for his dedication to science. In 1939 he was awarded the Captain Scott Memorial Medal by the Geological Society of South Africa. The Mineralogical Society of America Award was presented him in 1953. Columbia University's Bicentennial Year Medal was bestowed upon him in 1954.

His memberships in Chemistry include: Fellow of Royal Institute of Chemistry (United Kingdom), Fellow of Royal Society of South Africa; and Member of South African Chemical Institute. His memberships in Geology include: Fellow of Geological Society of U.S.A.; Fellow of Mineralogical Society of U.S.A.; Fellow of Geological Society of Great Britain; Member of Mineralogical Society of Great Britain; Member of Geological Society of South Africa; and Member of Geochemical Society.

Professor Ahrens is currently Vice President of the International Association for Geochemistry and Cosmochemistry.

Professor and Mrs. Ahrens have three children: Yolande, Wendy and Ian. Yolande, recently married, is a graduate of the University of Cape Town, interested in microbiology, and attended schools in Boston, Oxford and Cape Town. Wendy is a student at the University of Cape Town, majoring in Sociology and Bantu languages. She was born in Boston and attended school in Oxford, as well as in Cape Town. Ian was born in Oxford and the 12-year-old attends prep school in Cape Town.

Professor Ahrens' hobbies include tennis, fishing, swimming, photography and music.

ATTENDANCE AT SOME NATIONAL AND INTERNATIONAL OCCASIONS:

- 1954 — Columbia University Bicentennial Year (by invitation).
- 1957 — Guest of U.S.S.R. Academy of Science, to participate in Geochemistry Symposium (by invitation).
- 1960 — Consultant in Yugoslavia, on spectrochemical techniques and geochemistry. (Invitation by International Atomic Agency, Vienna).
- 1963 — Guest speaker, earth science section, of British Association for the Advancement of Science, at annual meeting (Aberdeen, Scotland).
- 1965 — Three month lecture tour of U.S.A., involving 16 universities. Invitation from the Academic Year Institute, and sponsored by National Science Foundation.
- 1965 — Invited to attend Congress of International Union of Pure and Applied Chemistry, held in July in Moscow.
- 1967 — Programme Chairman of Symposium on "The origin and distribution of the elements", sponsored by UNESCO and the International Union of Geological Sciences, held in May in Paris.
- 1967 — Attendance, by invitation, of XIII Colloquium Spectroscopicum Internationale, held in June at Ottawa, Canada.

SOME SELECTED PAPERS ARE:

- The spectrochemical determination of fluorine in phosphate rock, *Journ. S.A. Chem. Institute*, 1942, Vol XXV, p. 18.
- The spectrochemical determination of Tungsten in siliceous material, *J. S.Af. Chem. Inst.*, Vol XXVI, No. 1, *Jan.* 1943.
- Quantitative spectrochemical examination of the minor constituents in pollucite, *Amer. Mineralogist*, 30, 616-622, 1945.
- Qualitative spectrochemical analysis of minerals and rocks, (with W.R. Liebenberg), *Trans. Geol. Soc. of S.Af.*, Vol. XLIX, 133-154, 1946.
- Molecular spectroscopic evidence of the existence of strontium isotopes Sr^{86} , Sr^{87} and Sr^{88} . *The Physical Review*, Vol. 74, No. 1, pp. 74-77, July 1, 1948.
- Measuring geological time by the strontium method, *Bulletin of the Geol. Soc. America*, Vol. 60, 217-266, Feb. 1949.
- A double-arc method for spectrochemical analysis of geological materials (with D. M. Shaw and O. I. Joensuu), *Spectrochimica Acta*, Vol. 4, pp 233-236, 1950.
- Quantitative spectrochemical analysis of silicate rocks, silicate minerals and allied materials (preliminary report on a scheme of analysis), *Spectrochimica Acta*, Vol. 4, pp. 302-306, 1951.
- Association of rubidium and potassium and their abundance in common igneous rocks and meteorites (with W.H. Pinson and Margaret M. Kearns), *Geoch. et Cosmoch. Acta*, Vol. 2, pp. 229-242, 1952.
- The abundances of Li, Sc, Sr, Ba and Zr in chondrites and some ultramafic rocks (with W. H. Pinson and Mona L. Franck), *Geoch. et Cosmoch. Acta*, Vol. 4, pp. 251-260, 1953.
- Implications of the Rhodesia age pattern, *Geoch. et Cosmoch. Acta*, Vol. 8, pp. 1-15, 1955.
- Some ionisation potential variations and relationships, *J. Inorg. Nucl. Chem.*, Vol. 2, pp. 290-314, 1956.
- The spectrograph in geochemistry and cosmochemistry, *Soil Science*, Vol. 83, No. 1, pp. 33-41, *Jan.* 1957.
- A survey of the quality of the principal abundance data of geochemistry, *Progress in Phys. and Chem. of the Earth*, Vol. 2, 1957.
- Observations on the use of LaO bands for DC arc Spectrochemical analysis (with R. Edge). *Spectrochim. Acta*, 13, 304-307 (1959).
- The application of anion-exchange techniques to the spectrochemical detection of the noble metals in silicate rocks. (with R.R. Brooks). *Spectrochem. Acta*, 16, 783-788 (1960).
- Some observations on the distribution of thallium, cadmium, and bismuth in silicate rocks and the significance of covalency on their degree of association with other elements. (With R.R. Brooks). *Geo. Cosmo. Acta*, 23, 100-115 (1961).
- The determination of Sc, Y, Nd, Ce and La in silicate rocks by a combined cation exchange-spectrochemical method. (with R. A. Edge). *Anal. Chim. Acta*, 26, 355-362, (1962).
- The determination of Mo in granitic and related rocks by a combined solvent extraction - spectrochemical technique. (with R. A. Edge and J.D. Dunn). *Anal. Chim. Acta*, 27, 551-558 (1962).
- The significance of the chemical bond for controlling the geochemical distribution of the elements. *Phys. Chem. Earth* (V) pp. 1-54, (1963).
- Investigations on the development of a scheme of silicate analysis based principally on spectrographic and ion exchange techniques. (With R.A. Edge and R.R. Brooks). *Anal. Chim. Acta*, 28, 551-573, (1963).
- The spectrochemical estimation of thallium in granite and in Mn nodules. (With J.P. Willis and M. Kaye). *Applied Spectroscopy*, 18, No. 3, (1964).
- Element distributions in specific igneous rocks VIII, *Geo. Cosmo. Acta*, 30, 109-122, (1966).



at the
11th ANNUAL MAY CONFERENCE
 Cleveland, Ohio May 17, 1967

The Cleveland Section of SAS held its 11th Annual May Conference on May 17, 1967, on the campus of Western Reserve University. The meeting was sponsored jointly with the Analytical Group, Cleveland Section, American Chemical Society. One of the highlights of the meeting was presentation of the Ernest B. Yeager Award. The award is given to an outstanding undergraduate student who is attending a college or university in Northeastern Ohio and who has demonstrated an interest in some phase of spectroscopy. This year the award was presented to Richard Ash, Jr., a student at the College of Wooster. His winning paper was titled, "An Unusual Reaction of 1,1,2, 2-tetracyano-cyclopropane." The award consists of a certificate plus \$100.



Cleveland Section SAS officers for 1967-68 are (left to right): Charles Belle, Treasurer, American Steel and Wire; Nita Stone, President; John Bell, Past President, Pesco Products; and Bill Ritchey, Vice President, Sohio Research Laboratories.



After-dinner speaker at the Cleveland Conference was Tom Armstrong (far right) of station WGAR. Also shown above are Mrs. Armstrong (far left); Mrs. Jeanette Grasselli, Standard Oil Company; and Don Spindler, Publicity Committee Chairman for the Conference, Ferro Corporation.

AWARDS PRESENTED AT XII COLLOQUIUM OTTAWA



Honorary membership in SAS was presented to William J. Poehlman by Dr. Herman A. Szymanski (standing right), current President of SAS, at the XII Colloquium Spectroscopicum Internationale held in Ottawa, Canada, in June. The first president of SAS, Bill has been a prime mover in the society since its inception. (See Arcs & Sparks, September, 1967, for story on Bill).



Mrs. Betty Mitchell (center) and F. Noel Hopper (not shown) were presented the Journal Award based on their paper appearing in the journal, Applied Spectroscopy in 1966. Dr. Leopold May (left), Chairman of the award committee, made the presentation. The title of the paper was, "Digital Computer Calculation and Correction of Matrix Effects in X-ray Spectroscopy." Dr. Szymanski (right) offered his congratulations.



Carl J. Leistner (center), Ultra Carbon Corporation, and former Local Section Editor of Applied Spectroscopy, received a Commendation Award at the XII Colloquium. Congratulating Carl are Jim Paterson (right), Editor of Applied Spectroscopy; and Alvin Bober, Business Manager.



at the

ROCKY MOUNTAIN SPECTROSCOPY CONFERENCE

Denver, Colorado
August 1967



Jack Young (left), Coors Porcelain, Golden, Colorado; and Bill Buchanan, International Quartz Co., Inc., Phoenix, Arizona, representative of Ultra Carbon Corp.



Edward St. Amand (left), Baird-Atomic, Inc.; E. N. Kissinger (center), Colorado Fuel and Iron Company; and Bill McCarty, Marathon Oil.



Left to right: A. T. Myers, Mrs. Marvin Fishman, Paul Barnett, Marvin Fishman, Mrs. Barnett and Mrs. Marvin Skougstad, all of U.S. Geological Survey.



Left to right: K. E. Curry, A.C.F. Industries, Albuquerque, New Mexico; Dr. Fred Losee, Eastman Dental Center, Rochester, New York; Mrs. Losee; and Bill Buchanan. Dr. Losee, banquet speaker, titled his speech, "Observations Concerning Nutrition, Trace Elements and Dental Caries."



Joe Haffty (left), U.S. Geological Survey; and Blair Roberts, Kennecott Copper.



Frank Tindall (left), Duval Corporation, Tucson, Arizona; and Claude Huffman, U.S.G.S., Denver.



David Nava (left), Center for Meteorite Studies, Arizona State University, Tempe, Arizona; Ralph Terrell (center), Gulf Research and Development, Pittsburgh, Pa.; and Jude Koeing, McDonnell Douglas, Inc., St. Louis, Missouri.



Dr. and Mrs. Pickett, University of Missouri, Columbia, Missouri.



Left to right: Andris Priede and Raymond A. Zickus, both of Jarrell-Ash Company; Joseph W. Guidry, Freeport Sulphur; and Karmie Galle, Kansas Geological Survey.



Left to right: Gerald A. McReynolds, R. L. Stone Company; Mrs. McReynolds; Donald Spindler, Ferro Corporation; and John Janik, National Lead Company.



at the

OPTICAL SOCIETY OF AMERICA

Annual Meeting

October 1967

Detroit, Michigan



Dr. Edwin H. Land (right), Research Laboratories Polaroid Corporation, is recipient of the 1967 Ives Medal. With him are M.G.T. Minnaert (left), Sterrewacht Sonnenborgh, Zonnenburg, Utrecht, Netherlands; and Dean Sawyer.



Left to right: Harlan H. Hatcher, President of University of Michigan; Dean Ralph Sawyer, Chairman of the Board, American Institute of Physics; and R. Scott, Member, Board of Directors, Optical Society of America. Dr. Hatcher gave the after-dinner address.



Chairman of the Program Committee was David L. Fry. His helpers included Loretta Kozleski (seated center), Ford Motor Company; Alma Fry, member of the Hospitality and Tour Subcommittee; and Mrs. Lillian Offner (standing), Darien, Conn.



Left to right: E. A. Boettner, Banquet Subcommittee Chairman; Dean Kraus, Professor Emeritus, University of Michigan; D. J. Lovell, Major Themes Subcommittee Chairman; and Mrs. Lovell, member of the Hospitality and Tours Subcommittee.



Registration desk can be a busy place during a meeting. Standing in front are Dave Fry and Dr. Rasweiler; seated are Leone Dever (left) and Helen Davis, of the Detroit Convention Bureau. Standing between the ladies is S. Cohen, member of the Registration Subcommittee.



Matt Lehmann (left), Stanford University, chatting with two representatives from Bell Telephone Laboratories, Chris B. Burkhardt (center), and John T. LaMacchia.



Taking a look at the agenda for the meeting are David C. Blik (left) and John D. Keller, both of Bausch and Lomb Optical Company.



LeRoy Brooks (left), General Electric Company; and Ford Bryan, Public Relations Subcommittee Chairman.



Emil Wolf (left), University of Rochester; and Sumnor Davis, University of California.



Dr. Ralph G. Smith (right) receives congratulations from Dr. H. H. Willard (center), who was the first Anachem Award winner. Looking on is Dr. William G. Frederick, Chairman of the award committee.

Dr. Ralph G. Smith Receives 1967 Anachem Award

The 1967 Anachem Award was presented to Dr. Ralph G. Smith of the Department of Occupational and Environmental Health, School of Medicine, Wayne State University, Detroit, Michigan, for his outstanding contributions in the field of analytical chemistry.

Dr. Ralph G. Smith was born in St. John, New Brunswick, Canada, in 1920. He received his doctorate at Wayne State University in 1953 majoring in analytical chemistry. Dr. Smith worked as an analytical chemist for Rotary Electric Steel Company between 1940 and 1942, after which he served as meteorologist for the U. S. Air Force until 1946. Between 1946 and 1955 he worked as an industrial hygienist and chief chemist for the Bureau of Industrial Hygiene, City of Detroit. He was an Associate Professor in the Department of Industrial Medicine and Hygiene, College of Medicine, Wayne State University between 1955 and 1963. From 1963 to date he has been a Professor in the Department of Occupational and Environmental Health, School of Medicine, Wayne State University. He has also done extensive consultation to industry in the past decade in industrial hygiene and air pollution.

Dr. Smith is a member of the American Chemical Society, and is Section Editor for Chemical Abstracts, "Toxicology, Air Pollution and Industrial Hygiene." He is a member of the American Industrial Hygiene Association; American Conference of Governmental Industrial Hygienists; American Public Health Association; Air Pollution Control Appeals Board, Wayne County Board of Health, State of Michigan; American Academy of Industrial Hygiene; New York Academy of Sciences; Air Pollution Control Association; Sigma Xi, Phi Lambda Upsilon, and many other societies. His many publications have dealt with the analytical chemistry of beryllium, ozone, mercury, and other substances, methods of air sampling and analysis, sampling and analysis of biological materials, and various aspects of industrial hygiene and toxicological matters.



Past Presidents of Anachem got together for this picture. Front row: J. Johnson, C. M. Gambril, A. G. Gassmann, Ann Bartruff and John Cramer. Second row: J. A. Burns, B. E. Nagel, P. K. Winter and W. G. Frederick. Back row: S. O. Rue, R. G. Smith and T. O. Morgan.



Reviewing 25 years of history for the Anachems were (left to right): D. Boltz, C. M. Gambril, R. Marce, P. K. Winter and T. Morgan.



Dr. and Mrs. Robert Brattain (right) enjoying conversation with Dr. G. E. A. Wyco (left), Shell Development Co.; and John Hoyte, Spectrex Company. Dr. Brattain is a consultant.



Mr. and Mrs. Paul Perkins (center), Perkin-Elmer Corporation, visiting with John Ferraro (left), Argonne National Laboratories and Glen F. Bailey, U. S. Department of Agriculture.



Dr. George H. Morrison (right), Cornell University; and Carl J. Leistner, Ultra Carbon Corporation.



Leonard Meserole (center), Naval Air Rework Facility, North Island, San Diego, California; getting information on Ultra Carbon products from Ray Baney and John Faloony, both of Ultra.



Left to right: C. E. Harvey, Washington State University; Bill Davis, McPherson Instruments; and George Alexander, UCLA, General Committee Chairman of SAS.



Left to right: Clarence Hale, Stuart Company; Carol Staas, Marden Supply Company; George Alexander, UCLA; Jim Paterson, Consolidated Electrodynamics Corp; and Ed. S. Peer.



S. T. Workman (left), Datex; Frank Bernstein (center), General Electric Company; and Donald Swarthout, General Electric X-Ray.

at the
**PACIFIC CONFERENCE
 ON CHEMISTRY AND SPECTROSCOPY**

Anaheim, California

October 30-31, November 1, 1967



Here's the Charles L. Chaney family with little Cindy. He's with Gulf-General Atomic.



Bruce E. Buell (left), Union Oil Company, and Ray McGowan, DCAS.



A. B. Whitehead (left), U. S. Bureau of Mines, and Ed Piepmeier, Oregon State University.



Left to right: Tony Maple Broan, Datex; Gregory Propsier, Aztec Instruments, Inc.; and E. C. Snooks, Union Carbide, Linde Division.



George Brace (left), Lockheed Aircraft; and Ralph Nusbaum, UCLA.



K. Brzozowski, ITT, Cannon Electric, at the Ultra Carbon booth with John Faloon.



Jose Nieto trio provided entertainment during the mixer.



EASTERN ANALYTICAL SYMPOSIUM

New York City

November 1967



Symposium Committee members, standing (left to right): J. Magoulis, Registration; H. Wadlow, Arrangements; H. Pazdera, Chairman-elect, New York Section SAS; E. Brame, General Chairman; G. Heinze, Treasurer; Joe Rahm; D. Green, Exposition Chairman; and R. Carls, New York Section SAS Representative. Seated (left to right): G. Davis, Publicity; C. North; R. Knauer, Student Awards; and N. Gardner, Exhibit Manager.



New Developments in Emission Spectroscopic Excitation was dedicated to the late Dr. William F. Meggers, a pioneer in spectrochemistry (see *Arcs and Sparks*, January, 1967). Speakers at the session were (left to right): J. L. Jones, Applied Research Laboratories; M. F. Hasler, Hasler Research Laboratories; B. F. Scribner; R. N. Kniseley, Institute for Atomic Research and Department of Chemistry, Iowa State University; and Dr. H. Kaiser.



J. M. Howard III (left), General Electric Company; Hannah Klein, Drug Standards Laboratory, Washington, D. C.; and J. L. Hale, Eli Lilly Company.



Left to right: John Booker and Jim Brake, both of Varian Aerograph; Dr. W. Buitrill, U.S. Department of Agriculture; Robert McClure and Art Campbell, both of Varian; and Dr. Sidney Siggia, University of Massachusetts.



Dr. E. C. Dunlop (left), E. I. duPont de Nemours Company; R. T. O'Conner (center), U. S. Department of Agriculture, New Orleans, Louisiana; and R. C. Hawes, Cary Instrument Co.



Left to right: Morris Slavin, retired; Sidney Kuhn, Fitelson Laboratories; Evelyn Sarnoff, Food and Drug Administration, Brooklyn, New York; and Marvin Margoshes, National Bureau of Standards.



Left to right: Andrew Rekus, Baltimore Gas and Electric Company; Bill Wilson; Dr. Mabel Wilson, Allied Chemical Company; and Mrs. J. E. Van Dien, Spectrochemical Labs.



Left to right: Leo K. Yanowski, Fordham University; David Sabine, Yonkers, New York; R. K. Mourmeyer, Brooklyn College; and A. C. Misiretta, Park Ridge, New Jersey.



Clockwise from left: D. L. Nash, Bell Telephone Laboratories; W. G. Whitehead, Union Carbide; C. A. Jedlicka, Lucius Pitkin, Inc.; R. E. Dutton, Union Carbide; and G. E. Peterson, Perkin-Elmer Corporation.



L. S. Birks (second from left), U. S. Naval Research Laboratory, was winner of the 1967 SAS New York Section Medal. B. F. Scribner (far left), National Bureau of Standards, was 1961 winner. Also seated at the table are T. E. Kennedy, Applied Research Labs; Mrs. Scribner; and Dr. Heinrich Kaiser, Institute for Spectroscopy and Applied Spectroscopy, Dortmund, Germany.



A group from Bridgeport University included (left to right): Marie Christiano, Peter Klein, Antoinette Petchkis, and Dr. and Mrs. Fred Strong.



Left to right: David Green, Western Electric Company; J. Margoulis, Mobil Chemical; P. Lublin, General Telephone and Electronics; R. Carls, Mobil Chemical; and G. Davis, Delare Associates.



Harshaw Chemical Company representatives included G. Hervatin (left), J. F. Rothamal (center), and Michael Aquinas.



Among the Student Award winners were (standing left to right): Peter Palubniak, Fairleigh Dickinson University; Richard Margolis, Bloomfield College; and William Reinhart, Boston College. Seated: Robert Stronski, St. Joseph's College; William Lamb, Georgetown University; and Yusef Elmehrik, Northeastern University. (Other winners were not available for the photograph).

Complete list of Student Award winners on next page.

Student Award Program

Five students majoring in spectroscopy, microchemistry, or analytical chemistry are selected by each sponsoring group to be the guests of the Eastern Analytical Symposium. The purpose of this program is to encourage students to attend professional meetings, to familiarize them with the quality of the information to be acquired and to enable them to meet and talk with other scientists working in their field. The symposium pays their expenses to attend the meeting. The response to this program, initiated in 1960 has been so favorable that it has been made a regular feature of the Eastern Analytical Symposium.

1967 Student Awardees

AMERICAN MICROCHEMICAL SOCIETY

Mr. Thomas Crumm, University of Massachusetts
Mr. Ronald F. Evilio, Lehigh University
Mr. Andrew Grange, Juniata College
Mr. Edward Kazimir, Fordham University
Mr. Robert Stronski, Saint Joseph's College

SOCIETY FOR APPLIED SPECTROSCOPY - BALTIMORE - WASHINGTON SECTION

Miss Sally Buchanan, Hood College
Miss Susan Gacina, Goucher College
Mr. William Lamb, Georgetown University
Miss Barbara Lauer, College of Notre Dame of Md.
Mr. Martin S. Lazarus, Western Maryland College

SOCIETY OF APPLIED SPECTROSCOPY - DELAWARE VALLEY SECTION

Mr. John Brennan, Phila. College of Pharmacy & Science
Mr. Kenneth Iwatate, Phila. College of Textile & Science
Mr. David A. Katz, Drexel Institute of Technology
Miss Imogene Lei Chang, University of Delaware
Mr. Richard Srna, University of Delaware

SOCIETY OF APPLIED SPECTROSCOPY - NEW ENGLAND SECTION

Miss Sheila Doyle, University of New Hampshire
Mr. Yusef Elmehrik, Northeastern University
Mr. John J. Jack, Massachusetts Institute of Technology
Mr. William Reinhart, Boston College
Mr. Rudolph Seitz, Massachusetts Institute of Technology

SOCIETY FOR APPLIED SPECTROSCOPY - NEW YORK SECTION

Mr. Joseph Ferry, University of Bridgeport
Mr. David Miller, Rutgers University
Mr. Robert Rodgers, Polytechnic Institute of Brooklyn
Mr. Paul Weiner, Stevens Institute of Technology
Miss Betty Vic, Upsala College

AMERICAN CHEMICAL SOCIETY - NEW YORK SECTION

Mr. William McSherry, Fordham University
Mr. Jack Novodoff, Hunter College
Mr. Joseph Saluzzi, Long Island University
Mr. Robert S. Schwartz, Queens College
Mrs. Jane Tschiemer, Hofstra University

AMERICAN CHEMICAL SOCIETY - NORTH JERSEY SECTION

Mr. Alan Fried, Farleigh Dickinson University
Mr. Richard Margolis, Bloomfield College
Mr. Peter Palubniak, Farleigh Dickinson University
Miss Margaret Yost, Caldwell College
Mr. Carl S. Stoll, Rutgers University

Adult Education Courses Popular with Ultra Carbon Employees



Nick Clement (second from right) received the Toolmakers Certificate from Del Hughes, Exec. Vice-President and General Manager, Ultra Carbon Corporation. Far left is Vern Royer, Superintendent of Manufacturing, and at far right is Don Baker, coordinator of the Federal, State and County Vocational Education Program.

Nick Clement is one of many Ultra Carbon employees who have received the Toolmakers Certificate. In the past 15 years, 80 per cent of all Ultra employees have successfully completed courses in their particular fields.

During the initial interview for employment, applicants are screened by rigid standards, and only those who demonstrate an interest in gaining further knowledge by their own efforts are acceptable. Employees in all departments of the company actively participate in the continuing education program.

The Toolmakers Certificate is awarded after a four-year apprenticeship, which includes on-the-job training and outside classroom work. The trainee is closely supervised during this four-year period and regular progress evaluations are made. More than 70 per cent of Ultra's machine operators have successfully completed the program and others are presently serving their apprenticeship. The program is set up and supervised by the U.S. Department of Labor and Michigan Department of Vocational Education.

Bay City is fortunate in having access to adult education programs at every level. Ultra employees are participating in courses which cover many fields of education: business management, chemistry, physics, accounting, sales technique and engineering, to name a few. These are evening classes offered by Delta College, Saginaw Valley College, Northwood Institute and University of Michigan Extension Service. For many employees of Ultra, these are refresher courses which offer a means of learning new methods and techniques; for others it is a matter of gaining new knowledge which they can apply to their present work.

The rigid screening of applicants and the continuing education result in low employee turn-over. Recently a survey of employees years of service indicated that the majority had been with Ultra at least 10 years.



DAVE FRY, General Motors Research, is well known as a spectroscopist and physicist. The party honoring him recently for completion of his first 25 years with GM was held simply because he's such a "good guy", so his fellow workers tell. Shaking hands with Dave is Walter Sargeant (far left). Looking on are (l. to r.) Kay Kumler and Mr. and Mrs. Robert Donohue.



LOOKING AHEAD

BATON ROUGE — The 21st International Symposium on Modern Methods of Analytical Chemistry is taking place on the campus of Louisiana State University from January 22 to January 25, 1968.

PITTSBURGH — Nineteenth Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy will be held March 3-8, 1968, at the Penn-Sheraton Hotel, Pittsburgh, Pennsylvania. An estimated 300 papers on all phases of Analytical Chemistry and Spectroscopy will be presented. The theme of the Conference for 1968 will be Analytical Chemistry and Spectroscopy for the Future. Symposia on the following subjects are now being arranged.

1. Future Standards for Analysis
2. Process and Control Problem of the Future
3. Thermoanalysis for the Future
4. The Future in Liquid Chromatography
5. The Future of Analysis in Medicine
6. Coblenz Symposium on Infrared Spectroscopy
7. E.S.R. of Metal Chelates
8. Specific Ion Electrodes
9. Government and Industry in Pollution Control
10. N.M.R. Spectroscopy
11. Kinetics in Analysis

CHICAGO — The Seventh National SAS meeting is scheduled for May 12-17, 1968, in Chicago, Illinois.

AKRON — The American Chemical Society will hold the First Central Regional Meeting in Akron, Ohio, on May 9 and 10, 1968, at the Sheraton Hotel. The region encompasses the states of Ohio, Michigan, Indiana, Kentucky and portions of Pennsylvania and West Virginia. The 30 local sections have approximately 15,700 members, making it largest of the various ACS regions in membership. Headquarters for the conference and exhibits will be the Sheraton Hotel. Reservations may be made by contacting Miss Genevieve Donahue at: Sheraton Hotel, 259 S. Main Street, Akron, Ohio 44308 (Phone (216) 535-1871). Exhibit Chairman is Dr. William G. Krochta, Pittsburgh Plate Glass Industries, Chemical Division, P.O. Box 31, Barberton, Ohio 44203.

NEW ORLEANS — Although the Seventh National SAS meeting is still something to look forward to, the Ninth National meeting is already taking shape. The Southeastern Section of SAS will host the meeting in New Orleans in 1970. We'll be awaiting more information on this important meeting.

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