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Newsletter

Volume 8 Number 2 October 1984

PHILLIPS IS NEW MMRD HEAD

Professor **Norman Phillips** has been named Associate Director and Head of MMRD by LBL Director and MMRD investigator **David Shirley**. He replaces Professor **Alan Searcy**, who served as Head of MMRD for more than four years.

Dr. Phillips received his B.A. and M.A. degrees from the University of British Columbia and his Ph.D. from the University of Chicago. He joined the UC Berkeley faculty in 1955, serving as Dean of the College of Chemistry from 1975 to 1981. He has also recently chaired the Search Committee for the LBL Deputy Directors and the Task Force for Classification Structures of Staff Senior Scientists and Staff Scientists.

Dr. Phillips has been a scientist at LBL since 1957, concentrating on the measurement of the properties of materials at temperatures near absolute zero.

Dr. Phillips is a fellow of both the American Association for the Advancement of Science and the American Physical Society, as well as a member of the American Chemical Society.

Dr. Phillips becomes the fifth Head of MMRD since the founding of the Inorganic Materials Research Division (IMRD) at LBL in 1960. His predecessors are professors **Kenneth Pitzer**, **Leo Brewer**, **David Shirley**, and **Alan Searcy**, all still-active principal investigators with MMRD.



Professor Norman Phillips

Saykally, Vollhardt named Miller Professors

MMRD investigators **Richard Saykally** and **Peter Vollhardt** were among the seven UC Berkeley faculty scientists appointed to Miller professorships for 1985-86. These appointments allow the faculty members to devote their time solely to research for a full year. Both Saykally and Vollhardt will use their awards beginning in July 1985. Current Miller professors include MMRD's Professor **Charles Harris**.

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HONORS and AWARDS HONORS and AWARDS

Professor **John Newman** has won the David C. Grahame Award of the Division of Physical Electrochemistry of the Electrochemical Society. The award is presented every other year to encourage excellence in physical electrochemistry research. The award is given to scientists who have "enhanced the scientific stature of the Society by the presentation of well-recognized papers in the Journal and at Society meetings" and have made outstanding contributions to the field.

The first international Conference on the Structure of Surfaces was held this past August on the UC Berkeley campus. MMRD Staff Senior Scientist **Michel Van Hove** was Conference Vice-Chairman. Other MMRD investigators participating in the event included professors **Marvin Cohen, Leo Falicov, Charles Harris, Y. Ron Shen, David Shirley,** and **Gabor Somorjai,** and Staff Senior Scientist **Philip Ross.** Members of the local organizing committee included Somorjai, Van Hove, and MMRD investigator Professor **Steven Louie.**

Dr. **Ron Gronsky** hosted a delegation of scientists from the Electron Microscope Society of the People's Republic of China on August 27, 1984. The scientists were making a tour of U.S. laboratories and included the National Center for Electron Microscopy in their LBL itinerary. The visit was part of an exchange program with the Chinese microscopy society.

Professor **Didier de Fontaine** was chairman of the Gordon Research Conference on Alloy Phases in Andover, New Hampshire, this past summer. These international conferences are designed to encourage a free exchange of ideas in the various fields represented. Professor **Leo Falicov** was one of the participants in the Alloy Phases conference. He gave an invited talk entitled "Theoretical Studies of Short-Range Order Properties in Binary Alloys."

Professor **Didier de Fontaine** was also the sole U.S. scientist represented at the 1984 Workshop on Incommensurate Materials at the German Physical Society's meeting center in

Bad Honnef. De Fontaine presented work done by him and his graduate students **Joe Kulik** and **A. Finel** on the axial next-nearest neighbor Ising (ANNNI) model applied to long-period superstructures. Participation at these meetings is normally limited to ten scientists each from England, France, and Germany, and ten scientists from the rest of the world.

Professor **Leo Brewer** has been honored by the journal *High Temperature Science*. Volume 17 (August 1984) has been designated a Leo Brewer Special Festschrift Volume. The introduction, by Paul W. Gilles, is titled "Leo Brewer, Versatile Chemist." Brewer's article, "The Responsibility of High Temperature Scientists," is the lead article in the volume.

Professor **Harold Johnston** received the American Chemical Society's 1985 Award in the Chemistry of Contemporary Technological Problems. The \$5,000 prize, sponsored by Mobay Chemical Corporation, was presented at the national ACS meeting. It honors Johnston's environmental work, especially his work on atmospheric ozone depletion.

Professor **Henry Schaefer III** was elected to membership in the International Academy of Quantum Molecular Sciences. The Academy's 37 members include 7 Nobel Prize winners. Schaefer is the youngest researcher to have been elected to the Academy.

Professor **Glenn Seaborg** received more honors this summer. He was named an Honorary Fellow of UCLA's College of Letters and Science. He was also the first recipient of the Glenn T. Seaborg Actinide Award, presented by the Advisory Committee of the Eighth Actinide Separations Workshop, held in Boulder, Colorado. The \$1,000 award will be given annually for outstanding achievement in actinide separation.

Professor **John Prausnitz** delivered the keynote address at the annual meeting of the Council for Chemical Research, held at UC Berkeley September 23-25, 1984. Prausnitz'

HONORS and AWARDS HONORS and AWARDS

talk was titled "Molecular Thermodynamics for Chemical Process Design — A Bridge Between Physical Chemistry and Chemical Engineering." The meeting focused on new research advances and ways to speed progress from the laboratory to industrial production, especially in areas such as semiconductors, polymers, catalysis, and biotechnology.

Professor **Jack Washburn** and **Jerzy Mazur**, one of Professor Washburn's graduate students, have won a first prize blue ribbon in the 1984 International Metallographic Exhibition. They took first prize in the transmission electron microscopy class with their poster, "The Structure of Si-SiO₂ Interfaces Suggesting a Ledge Mechanism of Silicon Oxidation." This marks the second year in a row that an MMRD investigator has won first prize in this class. Dr. **Ron Gronsky** and his graduate student **Jim Howe** won the prize last year.

Dr. **Ron Gronsky** gave one of the four summer lectures in the 1984 Summer Lecture Series at LBL. He discussed the problems and successes of electron microscopy, from the earliest times right up to the present atomic resolution microscope and high-voltage electron microscope at the National Center for Electron Microscopy in Building 72. Other speakers in the series included LBL Associate Director **Martha Krebs** and Dr. **Bruce Ames**, inventor of the Ames Test for cancer detection.

Professor **Kenneth Pitzer**, CAM Interim Director, was interviewed by Richard Corrigan, writer for *The National Journal*. Corrigan also visited the germanium crystal-growing laboratory, directed by Professor **Eugene Haller**, and the National Center for Electron Microscopy, directed by Professor **Gareth Thomas**. *The National Journal* is a general-interest and governmental affairs magazine published in Washington, D.C. It circulates widely on Capitol Hill.

Professor **Marvin Cohen** chaired the 17th annual International Conference on the Physics of Semiconductors, held in San Francisco from Au-

gust 6 through August 10, 1984. The conference is one of the largest and most prestigious conferences in solid-state physics, with over 1000 physicists and materials scientists from all over the world attending. Other MMRD investigators playing prominent parts in the conference included Professor **Peter Yu**, in charge of local arrangements; Professor **Steven Louie**, publications chairman; and Professor **Leo Falicov**, member of the organizing committee. Many other MMRD investigators and staff presented papers.

Professor **Eugene Haller** served as organizer for the First International Conference on the Spectroscopy of Shallow Centers in Semiconductors, held at UC Berkeley on August 2 and 3, 1984. The conference focused on the physics of electron donors and acceptors in semiconductors.

MMRD investigator and Professor **Anthony Evans** has been appointed Acting Director of the Center for Advanced Materials (CAM). The appointment, made by MMRD investigator and LBL Director **David Shirley**, is effective from October 1 through December 31, 1984. Professor Evans has been CAM's Deputy Director under MMRD investigator and Professor **Kenneth Pitzer** for the first year of its operation.

PITZER RECEIVES BERKELEY CITATION

Professor **Kenneth Pitzer** was awarded the Berkeley Citation, the highest honor given by UC Berkeley. He was presented with the award at the 1984 Commencement, with Chancellor **Ira Heyman** making the presentation.

The Berkeley Citation is one more in a long list of honors for Professor Pitzer. He recently won the prestigious Robert A. Welch Award, established to encourage basic research in chemistry and recognize major contributions to the field. The award, which comes with \$150,000 prize money, will be officially presented in November.

MMRD People

Jackie Denney, secretary to Professor **Brad Moore**, was one of ten members of the College of Chemistry staff to receive a Special Performance Award. These awards recognize those staff members who have given outstanding service to the College. Congrats, Jackie.

Michael Kuajala is the new Building 62 Building Coordinator. Michael, who replaces **Glenn Baum**, is well aware of the shoes he is trying to fill, but as one of Building 62's staff for the past few years (he was formerly in MMRD's shop), he is already quite familiar with the ropes around here. He assumed the position on September 1, 1984.

Don Krieger has been doing double duty for the past several months. Since January 1, 1984, he has been the Technical Scientific Coordinator, replacing **Walter Tuotolmin**, who became head of the Mechanical Technician Group at Building 77. He was also acting Building Manager from **Glenn Baum's** retirement in June to the recent appointment of **Michael Kuajala** to the position.

MMRD has a new Division Receptionist, **Jerome Leonard**. He has been in the Division Office since August, replacing former Receptionist **Sandy Jones**. Welcome aboard, Jerome.

RAYMOND WINS LAWRENCE AWARD

Professor **Kenneth Raymond** has been named one of six recipients of the 1984 Ernest Orlando Lawrence Memorial Award for outstanding contributions in the field of atomic energy. The award is given by the U.S. Department of Energy to U.S. citizens who are relatively early in their careers and have made recent contributions of value to the development, use, or control of atomic energy. Raymond was cited for "elegant experimental characterization of the microbial iron transport process and extension to the synthesis of actinide sequestering agents of potential importance to the removal of plutonium from the body." Raymond's research has focused on the design and synthesis of chemicals, similar to the iron chelates produced by bacteria, whose molecules can bind tightly with plutonium ions. The chemicals are nontoxic and of low enough molecular weight to pass through the kidneys so that they can be excreted, carrying the plutonium with them.

The award will be presented at a special ceremony in Washington, D.C., on November 27. Raymond will receive a medal, a citation, and \$10,000.

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