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Newsletter

Volume 8 Number 1 August 1984

Searcy Steps Down as Head of MMRD

Professor **Alan Searcy** resigned as Head of MMRD effective July 1, 1984. He served over 4 years of his 5-year term. He plans to take a year of sabbatical leave to devote more time to his research, which has entered "an exciting new phase."

In his resignation note, Searcy said "It has been a very great honor to serve as Head of MMRD. I am proud of the remarkable achievement of MMRD scientists, and I am proud of the dedicated staff that make MMRD a congenial and productive home for quality science. My thanks to you all."

LBL Director **David Shirley** has appointed a search committee to look for the next MMRD Head. Professor Searcy will continue as Acting Head until September 1 if necessary.

Commins, Jolly, and Raymond Become AAAS Fellows

Professors **Eugene Commins**, **William Jolly**, and **Kenneth Raymond** have been elected Fellows of the American Association for the Advancement of Science. Commins is an experimental physicist, with research emphasis on the border between elementary particle physics and atomic/nuclear physics. Jolly is a chemist with interest in x-ray photoelectron spectroscopy of inorganic and organometallic compounds, especially the measurement of atomic-core electron binding energies. Raymond is a chemist in Dr. **Norman Edelstein's** group, with special interest in general coordination chemistry and specific sequestering agents for actinides and lanthanides.

AAAS Fellows are described by the Association as "members whose effort on behalf of the advancement of science or its application are scientifically or socially distinguished."

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For Reference

Not to be taken from this room

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Earl Muetterties, 1927-1984

Professor **Earl Muetterties** died of cancer on January 12, 1984. He was 56.

Muetterties was world-renowned for his research in inorganic chemistry, with pioneering work in nuclear magnetic resonance, organometallic chemistry, and surface science, among other areas. He was the author of over 300 papers in major scientific journals and held about 100 patents for his inventions. He was a member of the National Academy of Sciences and the American Academy of Arts and Sciences, and an Honorary Fellow of the English Royal Society of Chemistry. In November 1983 he was informed that he had been named the 1984 recipient of the Kirkwood Award, one of the greatest honors given to U.S. scientists. He also posthumously received the 1984 Remsen Award from the American Chemical Society for distinguished service in chemistry.

He is survived by his wife, JoAnn; his mother, Muriel; two brothers, Larry and Craig; a sister, Barbara Connors; and six children: Eric, Mark, Gretchen, Maria, Martha, and Curt.

MMRD Sponsors Muetterties Memorial Symposium

MMRD and the UC Berkeley Chemistry Department sponsored a special symposium to honor the late **Earl Muetterties**. The symposium was held June 22 and 23 on the UC campus. The program featured 12 guest speakers, all outstanding contributors to inorganic chemistry, including Stanford University Professor **Henry Taube**, the 1983 Nobel Prize winner in chemistry. Professor **Kenneth Raymond** served as symposium organizer.

Raymond Organizes Muetterties Memorial Fund

MMRD investigator and Chemistry Professor **Kenneth Raymond** is organizing a fund to honor the late **Earl Muetterties**. The money will be used to support an annual Muetterties Memorial Distinguished Visiting Scholar in the Berkeley Chemistry Department. Seed money for the fund is being raised through individuals who join a "campaign cabinet" by pledging a personal donation of \$500 or more. The contribution is tax deductible, and many MMRD investigators have already contributed. For further information, call Ken Raymond at 486-6145.

Pines Visits Europe as Humboldt Senior Scientist

Professor **Alexander Pines** is spending 1984 in Europe as an Alexander von Humboldt Senior U.S. Scientist. This award, given to American scholars with world-renowned research programs, allows Pines to live in Europe for one year, traveling throughout Europe and speaking about his research at universities and other relevant locations. Pines has developed zero-field nuclear magnetic resonance (NMR), a new approach to the use of NMR that promises to extend NMR spectroscopy to the analysis of a whole range of new materials, including powders, ceramics, and similar noncrystalline or polycrystalline solids. NMR has been traditionally limited to liquids and crystalline solids. Pines, whose work in NMR is already internationally known, is basing himself at Stuttgart, West Germany, and he has already given several lectures in West Germany and Switzerland.

Bergman Elected to NAS

Professor **Robert Bergman** has been elected to the National Academy of Sciences, one of the highest honors a United States scientist can receive. His election was announced at the NAS annual meeting in Washington, D.C., this past May.

Bergman has been at LBL since 1978, and his main area of research has been metal-induced transformations of organic compounds. Already a member of the American Chemical Society and the Chemical Society of Great Britain, Bergman was also recently elected to the American Academy of Arts and Sciences (see adjoining article).

At the same annual meeting, MMRD's three NAS electees for 1983 were presented. They are professors **Leo Falicov**, **Carson Jefferies**, and **Gareth Thomas**. They, along with LBL's **George Trilling**, make up 4 out of the 60 members elected in 1983.

Pitzer Receives Welch Award

Professor **Kenneth Pitzer** is the 1984 winner of the \$150,000 Robert A. Welch Award in Chemistry. The award honors Pitzer's long career in solving complex chemical problems, including original combinations of quantum mechanics, statistical mechanics, and thermodynamics. Pitzer will formally receive the award in Houston in November. The award was established in 1972 by the Welch Foundation to encourage basic research in chemistry and to recognize major contributions in the field. Professor **Neil Bartlett** is a previous winner from MMRD.

Bergman, Richards Elected to AAAS

Professors **Robert Bergman** and **Paul Richards** were elected to membership in the American Academy of Arts and Sciences. Bergman was also recently elected to the NAS (see adjoining story). Richards is a physicist specializing in infrared spectroscopy, with emphasis on developing new instruments to increase the sensitivity of a wide variety of infrared measurements.

Lester Elected APS Fellow

Professor **William Lester, Jr.**, has been elected a Fellow of the American Physical Society. Lester was elected for contributions to the application of computers to chemistry. His computer-related work has included implementing the quantum Monte Carlo method, a promising alternative approach to the current quantum-chemistry techniques for molecular studies.

Van Hove to Co-Chair First Surface Structure Conference

Michel Van Hove, MMRD Senior Scientist, is serving as Vice-Chairman for the first International Conference on the Structure of Surfaces (ICSOS). ICSOS will be held on the Berkeley campus August 13-16, 1984. MMRD staff members giving invited talks include professors **Marvin Cohen** and **Ron Shen**, as well as Van Hove. Professors **Steven Louie** and **Gabor Somorjai** join Van Hove as members of the local conference committee.

HONORS and AWARDS HONORS and AWARDS

Dr. **Ron Gronsky** and **Jim Howe**, one of Ron's graduate students, received a first place blue ribbon in the transmission electron microscopy class at the 1983 International Metallographic Exhibit for their entry, "A High-resolution Electron Microscopy Study of Interfacial Structure of Precipitate Plates in an Al-15wt% Ag Alloy." The poster - and the blue ribbon - are on display on the second floor of Building 62, in the glass case opposite the elevator.

On October 3, 1983, Professor **John Prausnitz** was made an honorary Doctor of Engineering at the University of L'Aquila in L'Aquila, Italy. Both the Italian Minister of Education and the U.S. Ambassador to Italy attended the ceremony. The award recognized Prausnitz' contributions toward applications of chemical thermodynamics in chemical process design and his international efforts to modernize chemical engineering education.

Professor **James Evans** received the 1984 Champion H. Mathewson Gold Medal, awarded by The Metallurgical Society of AIME. The medal is awarded to the author of the paper considered to be the most notable contribution to metallurgical science during the period under review. Evans received the award for his outstanding contributions to chemical process metallurgy in gas-solid reactions, electromagnetically driven flows, and electrowinning.

Professor **Robert Ritchie** was awarded a fellowship from the Japan Society for the Promotion of Science, allowing him to spend up to 60 days at a Japanese university. He has chosen to study aspects of fatigue fracture at the Tokyo Institute of Technology.

Professor **Glenn Seaborg** was named Chairman of the Lawrence Hall of Science. Seaborg has served as acting Director since October 1982. He assumes his new position on September 4.

Professor **Yuan Lee** received the 1983 Harrison Howe Award from the Rochester Section of the American Chemical Society. He received it for his outstanding work in molecular beam chemistry and for "the impact of his work on his field." Past recipients of the award include **Linus Pauling, Melvin Calvin, Charles Townes**, and MMRD's **Glenn Seaborg**.

Professor **Charles Harris** has been honored as a Miller Research Professor at UC Berkeley for 1984-85. This award, given to a half dozen or so Berkeley professors each year, pays the professor's salary for one year and relieves him of his teaching duties for the year, so that he can devote his time fully to research. Other recent MMRD awardees include professors **Carson Jeffries** (1983-84) and **Robert Bergman** (1982-83).

Professor **Donald R. Olander** was elected a Fellow in the American Nuclear Society. He received this honor for several reasons, including his outstanding high-temperature research on the chemical and physical behavior of nuclear fuel element materials, his excellence in teaching and development of innovative nuclear engineering courses, and his internationally acclaimed book in nuclear reactor fuel elements.

Professor **Gabor Somorjai** was the Royal Society Centenary Lecturer in 1983. This award allowed Somorjai to present a series of lectures on his research at various locations in Great Britain. He spoke at Cardiff, London, Bradford, and Edinburgh.

Professors **Richard Saykally** and **Angelica Stacy** have won NSF Presidential Young Investigator awards. The awards come with a \$25,000 annual research grant for up to five years, and as much as \$37,500 in additional yearly federal support if it can be matched by contributions from industry.

HONORS and AWARDS HONORS and AWARDS

MMRD investigators **John Stringer** and **Alan Levy** were major participants in the recent National Association of Corrosion Engineers (NACE) annual meeting. Stringer was a plenary lecturer, and Levy presented five papers, the most of any author. Levy was also elected Energy Technology Committee chairman, responsible for corrosion technology for nuclear, geothermal, solar, and fossil energy-generation technologies.

Muller Coordinates 1984 ISE Conference

Dr. **Rolf Muller** served as Technical Program Chairman for the 1984 International Society of Electrochemistry (ISE) Conference, held August 5-10, 1984, on the UC Berkeley campus. Dr. **Elton Cairns** of the Applied Science Division was overall Chairman. Professor **Charles Tobias** was the Social Events Chairman. Dr. **Phil Ross** edited the extended abstracts volume. And Dr. **Lutgard De Jonghe** organized one of the programs.

Muller, Tobias, Ross, and De Jonghe presented invited talks. Other MMRD investigators giving invited talks included professors **John Newman**, **Leo Brewer**, and **Jim Evans**. More MMRD work was represented in poster sessions with entries by **Gholambbas Nazri** (post-doc with Muller), **Tae-young Huh** (graduate student with Evans), and **Karrie Hanson** (graduate student with Muller and Tobias).

Dr. **Christopher Gudeman**, a postdoc working with Professor **Richard Saykally**, has re-

ceived two awards: the 1984 ACS Nobel Laureate Signature Award for Graduate Education in Chemistry, and the 1983 Council of Graduate Schools/University Microfilms Award. He received the Nobel Laureate Award for graduate research work he did at the University of Wisconsin; the Council Award was in recognition of his thesis.

Chemistry graduate student **Laurie Butler**, who works with Professor **Yuan Lee**, received one of the three 1983 Division of Physical Chemistry Graduate Student prizes, awarded by the ACS and sponsored by Proctor and Gamble. The prizes recognize outstanding work by chemistry graduate students who have one year to go in school and who are the principle author of a paper published in *J. Phys. Chem.* Butler won the award for "Energy Partitioning to Product Translation in the Infrared Multiphoton Dissociation of Diethyl Ether."

Glenn Baum Retires

Glenn Baum, Building 62 Maintenance Manager for the past 18 years, retired on June 29th, completing a 25-year career with LBL. At the retirement luncheon held at Spengers, many speakers made it clear that replacing Glenn will be difficult, if not impossible. Glenn was around to help start up Building 62, and he more than anyone else has kept it — and its equipment — working ever since. Glenn and his wife will be spending their retirement in Coeur d'Alene, Idaho, near their son and close enough to golf courses, lakes, and rivers to keep any golfer and fisherman happy.

MMRD People MMRD People MMRD People

Walter Toutolmin is no longer with MMRD. On January 1 he moved "up" in more ways than one. He took over the position of head of the Mechanical Technician Group, which had been managed by two people. Even though he now supervises 120 people rather than 26, he's still enjoying his new job. It has been quite a learning experience, though. One bad side effect - no ski trips. Also, limited chances to use the new spinning reel he received as a gift from MMRD. By the way, he really appreciated the lunch MMRD held for him in March.

Kent McArthur, MMRD's Assistant Division Administrator, is running for a seat on the University of California Retirement System board. He is one of 15 candidates vying for the seat on the nine-seat board. Election results were not available at press time, but everyone at MMRD offers him best of luck and full support.

Madeline Moore recently received her 25-year service award.

John Knight, former MMRD editor, retired on June 1. He hung up his blue pencil after a 45-year career in technical publications, including three years with MMRD and a total of seven years with LBL.

MMRD has some new post-docs. They include Dr. **Mike Madden** (with Dr. **Kenneth Westmacott**), Dr. **Maria Piancastelli** (with Professor **David Shirley**), Dr. **Raghav Rai** (with Professor **Gareth Thomas**), and Dr. **Norbert Staud** and Dr. **Alfred D'Agostino** (with Dr. **Philip Ross**).

The support staff has seen some changes in the last few months. **James Wu** has recently joined as a senior research technician, working under **John Holthuis**. **Cynthia Coolahan** is the new secretary for Dr. **Heinz Heinemann**. And **Raquel Rodriguez** is the new secretary for Dr. **Lutgard De Jonghe**.

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