MEMORIAL RESOLUTION

DAVID M. MASON
(1921 – 1988)

David M. Mason, Professor Emeritus of Chemical Engineering and Chemistry, died August 10, 1988, at Stanford Hospital of a stroke. He was 67.

A faculty member at Stanford since 1955, Professor Mason will be especially remembered as the founding chairman of the department of Chemical Engineering, which he organized in 1960 and chaired until 1972. During twelve years of rapid expansion, he nurtured the department to the leading position that it had already earned when he passed on the reins to his first successor among the five who have since followed. David Mason hired all five, including the current chair.

Born on January 7, 1921, in Los Angeles, Dave began his career at the California Institute of Technology, from which he graduated in 1943 with honors in applied chemistry. In 1947 and 1949, he received a Masters degree and a Ph.D. degree in chemical engineering at Cal Tech. Dave taught at Cal Tech as an instructor until 1952 and then spent three years as head of the Applied Chemistry Group at Cal Tech's Jet Propulsion Laboratory in Pasadena. Long associations in Los Angeles and Cal Tech deeply shaped Dave's characteristic courtly behavior, his sense of elegance, and his ability to spot intellectual quality.

Dave joined the Stanford faculty in 1955 as an associate professor in the chemistry department's division of chemical engineering. During the following five years, he forged many personal friendships among the Chemistry faculty. These endured over the years and have shaped the ties that still exist between the departments of Chemistry and Chemical Engineering, providing a productive symbiosis. As Dave started his work at Stanford, he convinced Cornelius J. Pings, a former Cal Tech student and collaborator, to join him. Neal Pings worked with Dave until 1959, when he returned to Cal Tech. Dave and Neal, now Provost at the University of Southern California, remained lifelong personal and professional friends. This is just one example of Dave’s many lifetime associations with friends and colleagues. In this memorial resolution, it is fitting in the same connection to mention Honora Mason, Dave’s wife, companion, and partner for 35 years.

In 1960, David Mason seized the opportunity to create an autonomous department of chemical engineering as a result of a Ford Foundation grant to Stanford. The most notable aspect of the succeeding events is the rapidity with which Dave built up the department, hired senior and junior faculty, and provided the department with its first home, the John Stauffer Building, third of the buildings in the Stauffer complex. Between 1960 and 1964, Dave laid down the foundations of the department, his department. It was his finest hour. He demonstrated his exceptional qualities as a leader, cajoling prospective faculty, charming donors, and securing support from the dean, provost, and president. He had the vision as well as the skill to get the job done. In 1964, feeling secure, he left for a year-long leave of absence in London, one of his many such stays in London during the remaining years of his career. One of Dave’s last

important appointments was that of Margie Jaedicke, whose career as Department Administrator spanned the years 1970-1988 and cemented the consolidation of Dave's creation.

Among Dave's talents as a leader was his ability to maintain a network among Stanford faculty and administration. Dave will long be remembered by a number of his friends as a regular member of a group of faculty and administrators who met regularly for Friday lunch in the Rathskeller of the Faculty Club. Indeed, Dave was very active in university affairs, at Stanford and elsewhere. He served as Associate Dean of Engineering for Undergraduate Affairs (1973-76) and Associate Dean of Engineering for Student-Faculty Affairs (1978-82). He was most interested in undergraduate education and served many years on the accreditation committee dealing with undergraduate professional programs in chemical engineering throughout the nation. In recognition of his services to the profession, the American Institute of Chemical Engineers elected him a Fellow and rewarded him with its prestigious Founders Award, an apt and well-deserved honor. In a similar vein, Cal Tech bestowed upon Dave Mason its Distinguished Alumni Award, the only chemical engineer so honored. This award was based in part on Dave's many years of service on the Visiting Committee advising Cal Tech's Division of Chemistry and Chemical Engineering.

At Stanford, even after becoming emeritus, Dave made himself accessible to students at all degree levels, showing a keen appreciation of the demands and stresses of student life. Between 1968 and 1971, David Mason was a member of the University Committee on Land and Building Development. He chaired that committee in 1969-70. He was elected a member of the Advisory Board of the Academic Council for the term 1969-1974. While he chaired the Board in 1970-71, he performed perhaps his most demanding Stanford service when the Board convened to hear dismissal charges against a tenured faculty colleague, in a climate of violence and intimidation that put great stress on committee members and their families. The Board had to balance the rights of individuals for open expression against the need of an institution to protect its properties and processes. Even in that difficult situation, Dave remained an educator, attempting to interpret to any and to all and to assure that a trying incident in chaotic times had a positive outcome for the University. Nevertheless, the stress of that period took a heavy toll on Dave, and it took him time to recover from the ordeal. In 1972, he requested another leave of absence to return to his beloved London. On his return to Stanford in 1973, his department was in the hands of Andreas Acrivos, whom he had hired during the founding years to shape up the philosophy of the department's graduate program.

In the subsequent years, Dave Mason could look serenely at his creation and enjoy it, perhaps most of all at the annual David M. Mason Lectures in Chemical Engineering, started in 1975 to honor the Founder of the Department. Appropriately, the first Mason Lecturer was Neal Pings. Perhaps the Mason Lectures most enjoyed by Dave were those organized in 1986 to celebrate the silver anniversary of the department. The lecturers were alumni, assembled in a warm gathering to honor the Founder. Many of these alumni are now in turn faculty members in leading departments in the United States and abroad.

After 1973, Dave Mason concentrated on teaching and research. Early in his career at Cal Tech and the Jet Propulsion Laboratory, Dave had become interested in chemically reacting flows involving in particular the oxides of nitrogen. In the mid-seventies, with emphasis on the protection of the environment, it became of interest to get rid of atmospheric nitric oxide pollution. In a joint program with a Stanford colleague, Robert Huggins, Dave and one of his

graduate students demonstrated that oxygen ions produced from nitric oxide at the surface of a solid electrolyte could be conducted away through the electrolyte. Dave pursued this work even after he had become emeritus, and he believed that it had merit for the development of a new type of fuel cell. This is a good example of the work that Dave pursued in his small laboratory, as a lone gentleman-scientist interested in original ideas, off the beaten path. Another example of Dave's life-long interests was the study of periodic or oscillatory chemical reaction, a subject that was only a matter of intellectual curiosity when he became interested in it during his Pasadena period but which recently emerged as a popular and prolific area.

As an accomplished researcher, scholar, teacher and administrator, David M. Mason enriched the lives of his friends, colleagues, and students, who will remember him fondly as a charming, distinguished, and talented individual.

Michel Boudart, Chair
Andreas Acrivos
George M. Homsy
Eugene E. Van Tamelen