

## **C. Judson King**

C. Judson King is Provost and Senior Vice President - Academic Affairs, Emeritus of the University of California (UC) and Professor of Chemical Engineering, Emeritus on the Berkeley campus. Among his administrative responsibilities as Provost and Senior Vice President were the oversight of academic planning and of research and academic policies for the UC system, including academic and programmatic coordination among the ten UC campuses and the three national laboratories managed by the University and frequent dealings with the Regents of the University of California and the state government. Before that position he was Provost, Professional Schools and Colleges; Dean of the College of Chemistry; and Chair of the Department of Chemical Engineering, all on the Berkeley campus. After being university-wide Provost he was Director, Center for Studies in Higher Education on the Berkeley campus. He is a member of the National Academy of Engineering, and has received a number of major awards from professional societies. His field of expertise within chemical engineering is separation processes.

### **Positions:**

*University of California:* Provost and Senior Vice President - Academic Affairs, 1996-2004. Interim Provost and Senior Vice President – Academic Affairs, 1995-96. Vice Provost for Research, 1994-96.

*University of California, Berkeley:* Professor of Chemical Engineering, University of California, Berkeley, 1969-2003; Professor Emeritus, 2003-present; Associate Professor, 1966-69; Assistant Professor, 1963-66. Chairman, Dept. of Chemical Engineering, 1972-81; Vice-Chairman, 1967-72. Dean, College of Chemistry, 1981-1987. Provost, Professional Schools and Colleges, 1987-1994. Director, Center for Studies in Higher Education, 2004-2014. Interim Director, Phoebe A. Hearst Museum of Anthropology, 2007-2009.

*Massachusetts Institute of Technology:* Assistant Professor of Chemical Engineering, 1959-62. Director, Bayway Station, School of Chemical Engineering Practice, 1959-61.

### **Education:**

Yale University: B.E. in Chemical Engineering, 1956.

Massachusetts Institute of Technology: S.M. in Chemical Engineering, 1958; Sc.D. in Chemical Engineering, 1960.

### **Research:**

*Within chemical engineering:* Separation Processes: mechanistic phenomena important for dehydration and concentration of foods; use of reversible chemical complexation for recovery of polar organics from dilute aqueous solution by processes such as extraction

and adsorption; water and air pollution abatement; energy conservation in separations. Methodology of process synthesis and design.

*Within higher education:* University structure and governance; engineering education; university roles in technological innovation and economic development. Currently writing a book on the development, spread, and maintenance of academic quality within the University of California.

### **Teaching Activities:**

Development of components of the M.S. and Ph.D. graduate programs relating to Chemical Process Design, Development and Synthesis. Graduate and undergraduate courses in Separation Processes, Process Engineering and Synthesis, and Mass Transfer. Freshman seminar, "Chemicals and the Environment". Development of a series of case problems in Chemical Process Design and Engineering. Author of a graduate and undergraduate text, "Separation Processes" (McGraw-Hill, 1971, 1980). Supervisor of 48 completed Ph.D. dissertations and 48 completed M.S. theses. Developed and led a series of approximately 20 short courses for international leaders of higher education.

### **Publications:**

Books: "Separation Processes", McGraw-Hill, 1971; 2nd edition, 1980. "Freeze Drying of Foods", CRC Press, 1971.

241 chemical engineering publications as journal articles or chapters in books

23 higher education publications as online publications, journal articles or chapters in books

13 U. S. Patents

### **Honors:**

Clark Kerr Award, Academic Senate, University of California, Berkeley, 2019

100 Chemical Engineers of the Modern Era, Amer. Institute of Chemical Engineers, 2009

The Electrochemical Society Lecture, The Electrochemical Society, 1998.

Outstanding Alumnus, Yale Science and Engineering Association, Yale University, 1998.

Award in Separations Science and Technology, American Chemical Society, 1997.

Centennial Medallion, American Society for Engineering Education, 1993.

Fellow, American Association for the Advancement of Science, 1993.

Clarence G. Gerhold Award, Separations Division of AIChE, 1992.

Warren K. Lewis Award, American Institute of Chemical Engineers, 1990.

Mac Pruitt Award, Council for Chemical Research, 1990.

Award for Excellence in Drying Research, International Drying Symposium, 1990.

Ninth Centennial Lecturer in Chemical Engineering, University of Bologna, 1988.

Fellow, American Institute of Chemical Engineers, 1983.

National Academy of Engineering, 1981.

George Westinghouse Award, American Society for Engineering Education, 1978.

William H. Walker Award, American Institute of Chemical Engineers, 1976.

Food, Pharmaceutical and Bioengineering Division Award, American Institute of Chemical Engineers, 1975.

Best Paper Award, 15th National Heat Transfer Conference (with H. L. Fong and H. H. Sephton), 1975.

25th Annual Institute Lecturer, American Institute of Chemical Engineers, 1973.

Tau Beta Pi

Sigma Xi

### **Professional Societies:**

*American Institute of Chemical Engineers:* Director, 1987-89. Board of Trustees, AIChE Foundation, 1991-1997. Separations Division: Chair, Founding Committee, 1989-90; Division Chair, 1991, Past Chair, 1992. Chair, Continuing Education Task Force, 1987-88. Meeting Task Force, 1987-88. Chair, Constitution and Bylaws Committee, 1988-89. Meeting Program Chair, San Francisco Annual Meeting, November, 1979. Member, Education Advisory Board, 1984-1993. Food, Pharmaceutical, and Bioengineering Division: Director, 1975-76; Chair, Award Committee, 1977-1985; 2nd Vice-Chair, 1978; 1st Vice-Chair, 1979; Chair, 1980. Chair, Ad-Hoc Committee on the Expanding Domain of Chemical Engineering, 1973-75; Chair, Chemical Engineering Projects Committee, 1971-73; member, 1964-74. National Program Committee [Area 2d, "Drying", Chair, 1974-79; Member, 1969-82. Area 6b, "Graduate Education", Member, 1972-77.] Member, Dynamic Objectives Committee, 1975-78. Chair of symposia at national meetings. Editor of three volumes of AIChE Symposium Series. Co-instructor of short course on Drying: Principles and Technology, given two to three times per year, 1983-93. Representative to International Scientific Advisory Board for International Congresses on Engineering and Food, 1980-88.

*American Society for Engineering Education,* Search Committee for Editor, Journal of Engineering Education, 2011-12. *Chemical Engineering Division:* Chair, 1978-79. Co-Chair, Organizing Committee 1977 Summer School for Chemical Engineering Faculty. Coordinator of week-long workshop on Chemical Process Design and Engineering, Summer School for Chemical Engineering Faculty, 1972. Publications Board, 1978-85.

*International Committee for Solvent Extraction, 1983-2000:* Technical Program Chairman, International Solvent Extraction Conference (ISEC'83), 1983.

*American Chemical Society:* Industrial and Engineering Chemistry Division: Chairman, Subdivision on Separations Science and Technology, 1986.

*American Association for the Advancement of Science:* Committee on Science, Engineering and Public Policy (1993-1999). Fellow.

### **Other Professional Activities:**

*California Council on Science and Technology* (California state organization chartered by state government and functioning in ways analogous to the National Research Council): Council member, 1996-2004; Council Chair, 2002-04; Fellow, 2004 – present.

*California Association for Research in Astronomy* (Keck Telescopes, joint between UC and Caltech): Board member, 2000-2006; Board Chair, 2003-2006.

*American University of Armenia Corporation* (Joint activity of UC and the Armenian General Benevolent Union): Board Chair, 1995-2006; 2009-2012. Board Member, 1995 – present.

*National Academies' Council on Science, Engineering and Public Policy*: Member, Committee to Evaluate the Experimental Program to Stimulate Competitive Research (EPSCoR) and Similar Federal Agency Programs, 2011-2013.

*National Academies of Sciences, Engineering, and Medicine* (formerly *National Research Council*): Separations Subcommittee, Committee on Separations Technology and Transmutation Systems (Nuclear Wastes), 1991-93. Chair, Committee on Separation Science and Technology, Board on Chemical Science and Technology, 1983-1987. Board of Assessments for National Bureau of Standards Programs: Review Panel for Center for Chemical Engineering, 1982-86; Chair, 1984-86. Review Panel for National Engineering Laboratory, 1985-89; Chair, 1987-89. Committee on Science, Engineering and Public Policy, Committee for Evaluation of EPSCoR and similar Federal Agency Programs, 2012-13.

*National Academy of Engineering*: Chair, Section 3, Chemical Engineering (2008-09); Vice Chair (2007-08). Chair, Committee on Metrics of Instructional Scholarship, 2007-08. Chair, Advisory Committee to Center for Advancement of Scholarship on Engineering Education (CASEE), 2005-present; member 2003-present. Chair, Committee on Alternatives to Chlorofluorocarbons as Solvents (1991-92). Peer Committee for Chemical Engineering (1987-88); Chair, 1988). Peer Committee for General Engineering (1986). Peer Committee for Biotechnology (1985).

*National Science Foundation*: Chair, Panel on Separations Technologies, Japan Technology Evaluation Program, 1992-93. Advisory Committee for Engineering Directorate, 1983-86. Subcommittee for Chemical and Process Engineering Division, 1981-85; Chair, 1983-85.

*Council for Chemical Research*: Chair, 1989. Member, University-Industry Task Force on Cooperative Advances in Chemical Science and Technology (Founding Committee), 1980-81. Founding Board Member, 1980-82; Board Member, 1987-89. Executive Committee, 1987-90; Chair, Manpower and Resources Committee, 1981-83; Chair, Science Advisory Board, 1984-87; Program Committee and Co-Organizer of Annual Meeting held in Berkeley, September 1984. Chair-elect, 1988; Chair, Program Committee, 1988.

*Governor's Task Force on Toxics, Waste and Technology* (State of California), 1984-85: Chair, Technical Advisory Committee on Technological Considerations, 1986.

*Lawrence Berkeley National Laboratory*: Chemical Engineering (Separations) Program, Nuclear Chemistry Division, 1963-75; Chemical Processes Program, Energy & Environment (Applied Science) Division, 1976-2003; Program Leader, 1978-81; Faculty Senior Scientist, 1987-2003.

*Engineering Foundation Conference on Separation Technology*: Co-Chair, 1989.

*Gordon Conference on Separation and Purification*: Vice-Chair, 1985; Chair, 1986.

*University of California:* President's Council on the National Laboratories (oversight of Lawrence Berkeley, Lawrence Livermore and Los Alamos National Laboratories), 1992-94. Science and Educational Advisory Committee (oversight of Lawrence Berkeley Laboratory), 1987-92. Numerous committees and task forces in capacity as Provost and Senior Vice President - Academic Affairs. University of California Press, Board Chair, 1995-2004.

*University of California, Berkeley:* Chair, Review of Information Technology at Berkeley: Governance, Funding and Structure, 2005-06. Chair, Information Planning Group, 1994-94 (defined new program and School of Information Systems and Management). Chair of Building and Project Steering Committees: Chemical Engineering Building (1987-1994); Nuclear Reactor Decommissioning (1987-1991); Computer Science Building, Soda Hall (1987-1994); Haas School of Business Building (1987-1994); Hearst Memorial Mining Building (1990-1994); Minor Hall Expansion (1990-1993); Projects Coordinating Committee (1990-1994); Boalt Hall (Law) Expansion (1992-1994); Northwest Precinct Study (1993-94); Lawrence Hall of Science Expansion (1991-94); College of Chemistry Space Studies (1985-86; 1993-94); College of Natural Resources Space Study (1993-94). Numerous other committees and task forces in capacity as Provost, Professional Schools and Colleges.

*Yale University:* University Council, 1988-93; Chair, Committee on Physical Sciences and Engineering, 1988-93. Advisory Board to School of Engineering, 2012 – present.

*Advisory Committees to Departments of Chemical Engineering:* University of Wisconsin, 1987-1992; Louisiana State University, 1981-1985 (Chair, 1983-85); University of New Mexico, 1978-81.

Other Advisory Committees: Dow Chemical Company, Academic Advisory Council, 1987-1989; Michigan Biotechnology Institute, Research Advisory Committee, 1987-1992. Massachusetts Institute of Technology, Visiting Committee, Department of Chemical Engineering, 1975-78.

*Editorial Advisory Boards:* Journal of Engineering Education, 2006-2014. Industrial & Engineering Chemistry Research, 1986-1990. Journal of Separation Process Technology, 1979-1982; Chemical Engineering and Processing, 1982-1994; Solvent Extraction and Ion Exchange, 1985-2002; Drying Technology, 1983-1999; Journal of Food Process Engineering, 1976-1987; I&EC Process Design and Development, 1975-79; Journal of Food Science, 1979-82.

*External Reviewer:* Department of Chemical Engineering, University of Utah, 1979; Department of Chemical Engineering, University of Colorado, 1983; Department of Chemical Engineering, Purdue University, 1979; Chemical Technology Division, Oak Ridge National Laboratory, 1984.

*Board of Judges:* Kuwait Foundation for Advancement in Science Awards in Petro/Chemical Engineering, Kuwait, 1983. Kirkpatrick Award for Chemical Engineering Achievement, 1977, 1979, 1981, 1983 (Chair); Individual Achievement Award, Chemical Engineering (periodical), 1976-1984.

*Visiting Appointment:* W. W. Clyde Visiting Professor of Engineering, University of Utah, January - June, 1978.

*Search Committees:* Vice President, Research and Graduate Studies, University of California, Chair, 2016. Director, Phoebe A. Hearst Museum of Anthropology (2008-09, and again 2015), Director, Lawrence Berkeley Laboratory (1989); Head, Energy & Environment Division, Lawrence Berkeley Laboratory (1977-78); Director, Sea Water Conversion Laboratory, University of California, Berkeley (1979-80), Chair.

**Consulting:**

King Abdullah University of Science and Technology, Thuwal, Saudi Arabia, 2010-2011.  
The Procter and Gamble Company, Cincinnati, Ohio: Coffee Division, 1969-1988;  
Industrial Chemicals Division, 1965-66, 1979-80.  
CPC International, Inc. (Corn Products), Summit-Argo, Illinois, 1982-1987.  
American Cyanamid Co., Bound Brook, New Jersey, and Stamford, Connecticut 1982-83.  
Cutter Laboratories, Inc., Berkeley, California, 1978-82.  
Merix Corp., Wellesley, Massachusetts, 1976-81.  
Pullman Kellogg Co., Houston, Texas, 1976-77.  
Air Products and Chemicals, Inc., Allentown, Pennsylvania, 1976-77.  
Lockheed Missiles and Space Corp., Sunnyvale, California, 1970-76.  
Marine Colloids Corp., Rockland, Maine, 1973-76.  
Kennecott Copper Corp., Ledgemont Laboratory, Lexington, Massachusetts, 1974-76.  
SNAM Progetti, S.p.A., Milan, Italy, 1971-74.  
ALZA Corp., Palo Alto, California, 1971-73.  
Amicon Corp., Lexington, Massachusetts, 1967-71.  
Numerous one and two-day consulting relationships.

**Community Activities:**

Snowcreek III Owners Association, Mammoth Lakes CA, President, 2007-2011; member, 1998-2012.  
Scoutmaster, Boy Scout Troop 100, Kensington, California, 1975-86.  
President, Kensington Community Council, 1972-73; Director, 1970-73.  
President, Kensington Dad's Club, 1970-71; various offices, 1966-73.

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