The Leadership and Contribution of Professor Shu-qin Yu

In the wondrous sixty-year history of the University of Science and Technology of China (USTC), there have been many individuals who have contributed greatly to the emerging of USTC from the scratch of idea into one of the undisputable leading academic institutions in China, as well as in the World. Among them, Professor Shu-qin Yu stood out as a true academic leader in the USTC history, as well as a major contributor to the development of the Chinese chemical physics, after the havoc of the Great Proletarian Cultural Revolution (1966–1976).

Since being an undergraduate student in the opening class of the Department of Chemical Physics of USTC in September 1958, Professor Yu started his 57-year association with USTC and her Chemical Physics program. As a university teacher, researcher and academic administrator, he played crucial roles in the re-birth of the Chemical Physics program at USTC, as well as the re-birth of USTC as a research university.

It is impossible here to go into the details of the complicated history of USTC and the transformation of the department programs, as well as many things that Professor Yu had initiated or made substantial contributions to in his academic career of over fifty years. Here as his former student and colleagues we would like to put into the record a brief summary of Professor Shu-qin Yu’s leadership roles and contributions to the university which he so dedicated to and so loved. Professor Yu not only initiated the idea to establish the Chinese Journal of Chemical Physics (CJCP) in 1988, but also served as the executive associate editor of CJCP for 18 years (1988–2005), setting the course and overseeing the daily operation of the journal. This special issue of CJCP, dedicated to the celebration of the 30th anniversary of CJCP and the 60th anniversary of USTC, is therefore the best opportunity for us to show our appreciation of and to pay homage to Professor Yu.

Teacher for generations: Professor Yu’s textbook/monograph titled Microscopic Chemical Reaction published in 1985 based on his lecture notes in the Department of Chemical Physics at USTC since 1982 was among the first textbook in Chinese covering the topics of molecular reaction dynamics. This small book of 113 pages is a concise treatment of the basic topics in gas-phase molecular reaction dynamics, with four chapters on (i) molecular collision and microscopic chemical reaction, (ii) potential energy surface and classical trajectory calculation, (iii) experimental methods in research of molecular reaction, (iv) experimental results analysis on molecular reactions. Ever since this book was published, for more than three decades, generations of students and their teachers in mainland China started their learning on molecular reaction dynamics from this textbook. Professor Yu started teaching the course on modern molecular reaction dynamics after his two-year study at the University of Utah as a visiting scholar (1980–1982), the first batch of exchanging scientists studying abroad after the Cultural Revolution. It is not too much to say that Professor Yu’s lectures and the published book served as the Prometheus’ Tinder for the emerging molecular reaction dynamics community in China after the Cultural Revolution which had put the Chinese education of modern chemical physics and physical chemistry far behind their international counterpart. In addition, Professor Yu’s love of students, and the help and mentoring he had provided for them have made possible the future development of their academic and other careers. Quite a few of his graduate students also have emerged as academic leaders in their respective fields later.

Modern educator: In 1982 after his study abroad, Professor Yu became the Executive Deputy Chairman of the Department of Modern Chemistry (1982–1987) and then the Chairman of the Department of Chemical Physics (1987–1996). The Chinese university sys-
tem after 1949 had followed the former Soviet Union system with all the teachers in the department organized on the teaching subjects instead of research directions. The idea and practice of the research university was completed foreign in the Chinese university system. As the Executive Deputy Chairman, Professor Yu started the experiment of organizing the Department of Modern Chemistry based on research directions and every teachers were required to do both research and teaching. The department led the reform and gradually all the other departments in USTC were organized similarly. These practices were new in the Chinese university system then, and Professor Yu was one of the very first to start this research university transition at USTC and in mainland China. Thanks to this, USTC now is inarguably one of the leading research universities in China, and many USTC graduates have become the leading force in the research universities home and abroad. All these efforts seem obvious now, but at the beginning it required vision, courage and great administration skills.

**Research community builder:** As the Chairman of the Department of Chemical Physics, Professor Yu initiated the effort to establish the Chinese Journal of Chemical Physics and CJCP started its first issue in 1988. As the founding executive associate editor, Professor Yu, with other leading professors in the Department of Chemical Physics, had overseen the ground operation of the CJCP editorial office at USTC for 18 years, and he supported the operation with necessary departmental resources, including funding, office space and personnel. It was not easy to start a new academic journal in China, particularly in the late 1980s. For doing this, Professor Yu used all his effort to get special permission from the government overseeing branch in Beijing. With the establishment of CJCP, a true research community on chemical physics and modern physical chemistry in China gradually formed around the Editorial Board of the journal, with members composed of leading researchers of major universities and institutions in mainland China, Taiwan China, Hong Kong, as well as overseas Chinese academics. CJCP is sponsored by the Chinese Physical Society and it is a journal covering truly interdisciplinary researches in molecular chemistry and physics, spectroscopy and dynamics, and theoretical and computational research. In order to increase CJCP’s international impact, Professor Yu recruited one of us (Hongfei Wang) to succeed him as the Executive Associate Editor (2006–2009) to oversee the transition of CJCP from publishing both Chinese and English language articles to publishing only English language articles. With the direction of the new Editor-in-Chief (Xueming Yang), this transition went smoothly and the whole operation also became web-based.

**Academic administrator and university builder:** In 1996, Professor Yu became the first Executive Deputy Dean and less than a year later the Dean of the newly created School of Chemistry and Material Sciences. On this job, Professor Yu had been instrumental in enhancing the various departments in the school. Even before the founding of the new school that hosts all these different departments, Professor Yu had been instrumental in bringing in new faculties who later became academic leaders and university presidents. His vision, courage and love of the university that had nurtured him, together with his great administrative skills, made all these possible. As the Chairman of the Department of Chemical Physics, he was the model of pursuing his departmental goals and in the meantime promoting the development of other departments and research programs. Professor Yu had been among the most respected academic leaders within the USTC community. He was one of the few unsung heroes who had made great contributions to the crucial development stage in the USTC history when it became a modern research university.

Old soldiers die. It is up to us not to let them fade away into the ashes of history book. This is our remembrance of Professor Shu-qin Yu, who was a great teacher, a modern educator, a skillful administrator, a great community and university builder. And beyond all these, he was a devoted husband and a great father. All these made him a man in full.

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