THANKS FOR THE MEMORIES: REMINISCENCES COLLECTED BY THE CO-EDITORS

1. BY THOSE WHO KNEW KEN WHILE ATTENDING PRINCETON UNIVERSITY (1968-1972)

Josette Bellan, Princeton Aerospace and Mechanical Sciences

I was not a student in the Guggenheim Laboratories, which was devoted to rocket and jet propulsion, and thus I did not have a close connection to Ken while he was a graduate student at Princeton. By the time I came to Guggenheim in 1974 to be a postdoc with Martin Summerfield, Ken had moved on. My first mental picture of Ken is on his PhD graduation day, all fully robed and with Olivia standing by him, beaming with joy and pride, while someone was taking their picture. Over time, our common interest in high-pressure flows and multiphase flow simulations with phase transition brought us in direct scientific contact. I know that at Penn State, Ken had a unique laboratory dedicated to high-pressure solid propellant combustion and that this laboratory had the unusual record of never having a safety incident. The care with which this lab had been built and operated is an example of Ken's devotion to perfection. He was thoughtful, meticulous, and careful in everything he did, and nothing but the best was satisfactory. His research was conducted with the highest standards and was of great significance. At the same time, Ken was a total gentleman, and his judgement and ethics stand as an example for us all. I will always treasure and have the fondest memory of my interactions with Ken.

Claudio Bruno, Princeton Aerospace and Mechanical Sciences

Ken and I passed Princeton Generals in May 1970, and we decided with other guys to throw a post-Generals party. The night of the party I started the record player and dancing began. Ken came, but he still had the same coat and tie he sported while going through Generals. He did feel very embarrassed taking both off but eventually did, and we had a great time.

Leonard H. Caveny, Princeton Aerospace and Mechanical Sciences

Now for something on the light side, another of Ken's contributions. The Caveny daughters raised two very assertive Chinese geese and Ken Kuo provided appropriate names, Honka Ula and Mai D'ia (1983).

Luigi T. DeLuca, Princeton Aerospace and Mechanical Sciences

In one of the many international conferences we attended together, we had a superb and very rich Chinese dinner. Ken volunteered to give a ride to the hotel where I was staying with another colleague. It was very late in the evening and I was already sleeping, when Ken decided he wanted to discuss a long chapter I had prepared for one of his books. I could not keep my eyes open,

while Ken was checking line by line the whole chapter. Finally, near midnight he discovered that I had used an asterisk somewhere in the main text, but the asterisk was missing in the nomenclature! Kindly, but very professionally, Ken asked me to be more careful. Thank you, Ken, for your lesson!

Alon Gany, Princeton Aerospace and Mechanical Sciences

I will remember Ken, not only as a prominent scientist in the field of propulsion and combustion, but also as a mensch. He was a real gentleman. We shared and discussed scientific views and issues, as well as many enjoyable moments at conferences and events, often together with our wives. Ken was always there to help and support. His death is a big loss to his family and friends.

Thomas J. Ohlemiller, Princeton Aerospace and Mechanical Sciences

I can only offer what I recall as my thoughts when I heard that Ken was going to model the gun propellant burning problem. I was rather incredulous. The problem was an order of magnitude more complex than any solid propellant problem I had seen modeled before—the complex flow and spatially dependent heat transfer posed by the irregular bed of igniting particles, the highly transient burning of those propellant particles as the pressure built to super high levels, all of this coupled to the movement of a projectile that changed the volume and potentially left the particle bed in motion. The problem is really intimidating. Ken was brave and highly competent. He went ahead and modeled it.

Arie Peretz, Princeton Aerospace and Mechanical Sciences

I have known Prof. Ken Kuo for 47 years and collaborated with him on many subjects and projects. I was much impressed by his ingenuity, high research and engineering skills, broad knowledge in the propulsion and combustion fields expressed in numerous contributions, as well as his excellent human manners and friendship relations.

Dom Santavicca, Princeton Aerospace and Mechanical Sciences

I did not know Ken very well when we were both graduate students at Princeton. Most of my interactions with Ken occurred after he recruited me to join the ME Department at Penn State in 1984. Ken's impact on the graduate program in combustion at Penn State was immense, through the state-of-the-art high-pressure combustion lab he developed and the training of numerous PhD students. His approach to research was both rigorous and demanding, requiring that he, his staff, and his students spend many hours at the lab and office. This same passion extended to other parts of his life, which I only came to realize after knowing Ken for a number of years. This was most apparent in his relationship with and commitment to his immediate and extended family. What surprised me the most was his ability to have a good time. His students had as much difficulty keeping up with Ken when they were working on research as they did when they were relaxing after a conference.

James Tien, Princeton Aerospace and Mechanical Sciences

I have many fond memories about Ken. I will just mention two of them here. I remember that in August 1968 when Ken and his wife, Olivia, dropped by the student apartment where my wife,

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Sibyl, and I stayed. He just arrived at Princeton and wanted my advice on how to be a *good* graduate student under Martin Summerfield. I had joined the solid propellant group a couple of years earlier. As I found out later, Ken was a very careful and thorough person.

The second event has to do with a dinner in New York City. Many Princeton Chinese students like to go to New York's Chinatown to have an occasional feast. Ken took Sibyl and I to one of his favorable tiny restaurants, whose dishes were indeed tasty but the sanitation needed to be improved. I found out that the fresh cabbages were stored close to the restroom door. The next day, I got a call from Martin Summerfield asking why he could not find me in my office. I said I had a diarrhea. But Ken survived—a tough guy!

Unlike some of us whose research carrier departed from propulsion after graduation, Ken stayed on and to become an undisputed authority in propulsion. We will miss you.

Thomas Tonon, Princeton Aerospace and Mechanical Sciences

I knew Ken when he and I were fellow graduate students in the Department of Aerospace and Mechanical Sciences at Princeton University, during the early 1970s. Ken was exceptional in that he seemed to go out of his way to get to know me—very friendly, polite, gracious, and genuinely interested in me. I remember him well and will never forget him.

2. BY THOSE WHO KNEW KEN FROM ALL OVER THE WORLD

Alice I. Atwood, NWC, USA

My first memories of Ken would be his ability to organize the ISICP meetings in different and exciting locations. More importantly, these meetings provided the opportunity for me to meet and exchange ideas with some of the finest scientists and engineers in the entire world. The experience was priceless. My husband and daughter both share fond memories of Ken and Olivia during our travel adventures. We send our heartfelt condolences to the entire family.

Valery A. Babuk, Baltic State Technical University, Saint Petersburg, Russia

I got acquainted with Ken Kuo in 1996 during a conference held in St. Petersburg (ICOC'96 – NATO-ARW). I was the chairman of the local Organizing Committee, and Ken Kuo was the chairman of the Organizing Committee. The main impression of communicating with Ken Kuo is the big desire to provide a conference carried out in conformity with the world standards. I also remember Ken Kuo's great desire to visit the hermitage. In the future, the communication was episodic at various conferences, where the work by Ken Kuo's scientific school was presented.

Adam Cumming, University of Edinburgh, UK

Ken was one of those scientists whose contributions stretched across many areas and affected many people. While I did not know him well, when we met his knowledge and enthusiasm were contagious and thought provoking. He will be missed but leaves a sound legacy!

Bernard M. Kosowski, MACH I, USA

I have worked with Prof. Ken Kuo for over 40 years. My initial contacts involved sampling him with HTPB from my company Arco Chemical. When MACH I, Inc., was formed in 1985,

Prof. Kuo evaluated and reported on our new MgB2 composite in his paper "Combustion of Boron-Based Solid Fuels and Slurries." I met him in Penn State and discussed his innovative X-ray radiography system. I recall attending many conferences sponsored by Ken throughout the world and enjoyed the professional and personal contact of he and his wife, Olivia. I respect Ken for many things, the most important of which was his leadership and mentorship of his students at Penn State University.

S. Krishnan, Indian Institute of Technology Madras, India

For quite a few of our research studies in the areas of solid propellant combustion at IIT Madras, the published works of Professor Kuo are of important references. I visited his lab in 1992. He was the examiner to one of my PhD students in 1998; his comments on the thesis demonstrated the remarkable thoroughness of his examination of the work. In 2000, I attended the conference (5th ISICP) organized by Kuo and DeLuca in Stresa, Italy. It is usual that delegates consider the poster paper in a conference to be of a second level. But Kuo had his own paper in the poster session of that conference and was standing there throughout the poster session and giving details of the study. I met him last in 2003 in Huntsville at the 39th JPC. Apart from his exceptional knowledge and wisdom, he attracted fellow researchers all over the world by his humility.

Bryan A. Palaszewski, NASA, USA

In 1990, NASA began a large space propulsion collaboration with Penn State University. We assisted the university with plans for small-scale rocket test cells and many research grants. The collaboration continued for many years. A major force in directing the research was Dr. Ken Kuo. His research areas spanned from solid rocket propellants and propulsion, metallized gelled propellants, and liquid oxygen and liquid hydrogen mixing and combustion. Ken always had a great passion for his work. On one visit to his Penn State office, I saw a huge wall-sized board filled with the details of numerous international conferences that he either organized or was attending. That board implied a dizzying schedule of events. His happiness, energy, and enthusiasm seemed boundless. Also, his students conducted us on tours of their laboratories, where small- and large-scale testing was underway. The technical abilities embodied in the labs and the students were more than impressive. Ken's ability to inspire was obvious in the hearts and minds of his students and collaborators. Ken Kuo's legacy in propulsion systems will be celebrated and remembered by all the people that he met. Long live Ken Kuo.

Rose Pesce-Rodriguez, Army Research Laboratory, USA

While I have many memories of technical interactions with Ken at our lab (first the Ballistics Research Laboratory, then the Army Research Laboratory), all memories invariably bring me back to 1996 and the 4-ISICP, which Ken organized in Stockholm on the anniversary of the 100th Birthday of Nobel. Ken structured the meeting so it would precede a workshop in St. Petersburg ("Peaceful Utilization of Energetic Materials"). In between, Ken arranged for an excursion through Finland. We took an overnight ferry from Stockholm to Helsinki, then went by train to St. Petersburg. I remember Ken and Olivia and their girls were there for the whole trip. It was so nice to see him enjoy the time with his wonderful family. As I recall, the logistics of the conference and excursion were quite demanding, but Ken kept his cool and all participants had a wonderful experience. I think it was the first opportunity I had to spend time with Ken

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outside the laboratory. I still remember the joyous look on his face when we were at Helsinki's Temppeliaukio Church (the "Church of the Rock") listening to the music of Sibelius. It was clearly a very special moment for him, as it was for all in attendance.

RuiQi Shen, Nanjing University of Science and Technology, Nanjing, China

I first met you in Breckenridge, 25 year ago and met you again in Poitiers after 23 years. Time like a flowing cloud, a fast flowing cloud! You never changed, you were always pure, enthusiastic, and approachable. Though I had not become your student, but Professor Boris N. Kondrikov brought me into the Martin Summerfield family; so fortunately, you became my uncle in the family. In my heart, you are my estimable supervisor, you are my uncle, you never change.

Mohan Varma, BIT, Ranchi, India

Prof. Ken Kuo will be remembered for his immense contributions on various topics related to the field of chemical rocket propulsion. Coming from the Princeton School and mentored by the legendry Prof. Martin Summerfield, Ken carried forward the legacy with the highest order of passion and commitment and established one of the finest laboratories for teaching and research at Penn State University, USA. Prof. Kuo received respect and appreciation from one and all connected to aerospace engineering, chemical rocket propulsion, energetic materials, and combustion. His idea to organize ISICPs in different countries was a unique initiative and provided fellow colleagues and researchers a forum to share their work and interact with each other. In one such event at Kyoto, Japan during a discussion, he very humbly mentioned that most of his recent work evolved from the ideas proposed by graduate students and his role was just to encourage them. Ken is missed by all of us as a friend and gentleman par excellence. The last time I met him and Olivia was at the 9th ISICP in Quebec, Canada. I hope someone carries forward his spirit and keeps the community connected.

WeiQiang Wang, Xi'an Modern Chemistry Research Institute, Xi'an, China

Three years ago, I was learning combustion of solid propellants at the Space Propulsion Laboratory (SPLab), Politecnico di Milano, as a visiting scholar and participated in the "International Workshop on Energetic Materials and Propulsion Technology" organized by Prof. Luigi T. De Luca. At this workshop, I met Prof. Kenneth K. Kuo, and this was my first time to meet him, even though I know him from international publications for many years. During the conference time break, he told me many things about his child life, his thoughts on solid propellant combustion, and also gave me the appropriate replies to my questions and requests. Moreover, he gave me several examples to hold onto one's dreams, including how he overcame the difficulties of his initial career, and gave me much important advice on experiments and my working life in the future, like a grandfather for many years. I am grateful for this warm discussion, and this will be kept in my mind forever.

Volker Weiser, ICT, Karlsruhe, Germany

From the beginning of my scientific life, I knew Kenneth from his important written publications. I never forgot my first personal meeting with him, while I still was a young scientist, on my first international conference 25 years ago in the elevator of the conference hotel in San Francisco. He just gave an invited overview lecture of propellant combustion and was very open to my

comments and questions to his talk. He took much time to discuss with me even though he was certainly in a hurry. I am grateful that this warm contact preserved all the time accompanied by many technical and always fruitful discussions with him.

Qi-Long Yan, School of Astronautics, Northwestern Polytechnical University, Xi'an, China

First of all, I have been and will be a big fan of Prof. K. K. Kuo. Since I pursued my master's degree in Xi'an, I learned from him thermal decomposition and combustion of energetic materials. In fact, I read several of his books and many scientific papers, including "Principles of Combustion" and "Combustion of Energetic Materials," based on which I slowly became familiar with the topics "reaction kinetics of energetic materials" and "ignition and combustion of energetic materials." He is one of the top scientists who guided me to the field of energetic materials.

Luckily, when I was doing my PhD in the Czech Republic, I got a chance to meet him in Milan in 2013, where I attended a seminar organized by Prof. Luigi T. Deluca. We had a big dinner together and talked a lot. He said he was born in Yunnan province and moved to Taiwan when he was nine years old with his father, a leading pilot of Chiang Kai-shek. He said he missed his hometown Yunnan very much, and therefore, he traveled a lot in China.

Because of the great reputation of his PhD supervisor, Martin Summerfield, he, together with his classmate Prof. DeLuca, soon became famous in the field of combustion and rocket propulsion. As we all know, Prof. Kenneth Kuo was the organizer of the well-known International Symposium on Special Topics in Chemical Propulsion & Energetic Materials (ISICP). The 11th ISICP was supposed to be held in 2016 in Turkey, but it was cancelled due to disorder caused by a terrorist attack. Alternatively, as the chairman of this symposium, he suggested that I organize a similar event in Xi'an. For sure I was very happy to do so, since Professor Kuo always attracted many great scientists to participate. However, in that exact year, unfortunately and sadly, he passed away; hence, the conference was postponed. Also in that year, 2016, we published a review paper together, "Progress in Energy and Combustion Science (PECS)" (vol. 57, pp. 75–136, 2016), which was our final coauthored paper.

As I remember, during his final revision work before publication, I made a call to him. He said he was ill and still working slowly on our paper in the hospital. I was shocked and idolized him more from that time, but I did not realize that his physical condition was that bad. It was my fault, and I would not have done so if I knew he was in that bad of a situation. The Editor-in-Chief of PECS, Prof. Hai Wang, informed me just after acceptance of that paper that the corresponding author should be changed to me since the original one, Prof. Kuo, passed away. I could not believe that fact and was very sad, adding the following caption on the bottom of the first page of the paper, "During the final publication stage of this manuscript, we sadly lost one of our co-authors, Professor Dr. Kenneth K. Kuo. As a kind colleague, outstanding mentor, and great scientist in the field of combustion science, he will live forever in our hearts."

Vladimir E. Zarko, Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia

I understand that it is very difficult task for a single person to give real portrait of Ken K. Kuo, who was a prominent scientist and wonderful man. However, I believe that when having several reminiscences from those who had contact with Ken, the readers may compose a rather objective picture of him. Therefore, I try to make my modest contribution to the overall picture.

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I met Ken Kuo for the first time in 1992 when he attended our Seminar on Flame Structure in Novosibirsk. It was a great pleasure for me and my young colleagues to meet him, whom we knew only from the literature, and discussions with him allowed us to have a better understanding of what we were studying and what we have to study. I can personally mention that despite a rather small difference with me in age (2 years!), at that time Ken had a much greater experience and higher accomplishments. I believe this was due to his unique single-mindedness and fantastic workability. Besides, as Russians usually say, he fished out a lucky ticket (had the *best of fortune*) preparing his PhD thesis at Princeton University under the guidance of the legendary Prof. Martin Summerfield.

Shortly after visiting Novosibirsk, Ken invited me to submit jointly a critical review of methods for regression rate measurements of condensed phase systems for the forthcoming International Symposium on Special Topics in Chemical Propulsion, Scheveningen, Netherlands (May, 1993). Actually, it was great pleasure and honor for me to work with him on composing the manuscript. It happened that first we wrote, separately, the parts of the review, and then during my visit to Penn State, we polished the text together. In the course of that work, I learned well the style of Ken, who strongly believed that there are no negligible details in the text and each statement has to be verified and substantiated. We spent a significant amount of time discussing the material and finally prepared the text, which was then successfully delivered at the symposium and published in the proceedings (1994).

In following years, we had many other contacts at different scientific meetings and every time I was astonished by Ken's great energy and workability. I knew he had a serious heart attack and, being myself experienced in this disease, wondered about him continuously working hard doing research, publishing the results, and organizing new Symposiums. In the course of his scientific career, Ken Kuo published and edited many books. In my view, one of the best and most important was "Principles of Combustion," published by John Wiley & Sons in 1986 (a second edition was published in 2006). In fact, this book, written by a rather young researcher, became a bestseller and valuable textbook for several generations of readers who specialized in different combustion fields. I was very pleased when Ken presented the book to me along with a special manual containing useful exercises explaining the materials of the book.

When talking about Ken, it is necessary to mention also his lovely wife, Olivia, and his two daughters. I was happy to visit Ken's house several times and to feel the atmosphere of this friendly family.

I'm sure that the name of Ken Kuo will continuously live in the memory of those who had personal contact with him and that many young researchers will truly evaluate and appreciate his great contribution to combustion science.

3. BY THOSE WHO WORKED WITH KEN AS ASSOCIATE EDITORS

Ronald W. Armstrong, University of Maryland, MD, USA

Ken Kuo was met when he participated in the first one of a series of Materials Research Society (MRS) Symposium Proceedings on "Structure and Properties of Energetic Materials," Vol. 296, 1993, to be followed by Volumes 800 (2004) and 896 (2006) on related energetic material topics. In that first proceedings, his comprehensive article, "Interrelationship between solid propellant combustion and materials behavior," done with T.A. Litzinger and W.H. Hsieh, was among the most important presentations at the Symposium in Boston; and, Ken's struggle to condense the total information into the 17 pages finally allowed for the proceedings was notably accomplished

with Ken's good nature. Follow-up association occurred, beyond the MRS meetings, from multiple participations in Dick Miller's ONR Workshops and in Ken's ISICP meetings; in 1996 in Stockholm, in 2005 in Santiago, and in 2012 in Quebec City. Particularly memorable was Ken Kuo's hospitality at Penn State during a visit to his laboratory with colleagues from the Naval Surface Warfare Center, Indian Head Division. Such endearing quality that was always exhibited by Ken, whether through the mentioned research associations or during his very capable management of the IJEMCP journal, will always be remembered in the fondest manner.

Helmut K. Ciezki, Institute of Space Propulsion, DLR, Lampoldshausen, Germany

Prof. Ken Kuo was an outstanding scientist, peer, teacher, and friend. His scientific contributions to the fields of chemical propulsion and energetic materials are very important. It was always fruitful and a pleasure to work with him and to learn from him. His proposals, his expertise, and his comments have been more than helpful to us and the whole scientific community. We are deeply grateful that it was allowed for us to accompany him on a part of his path of life.

Edward Dreizin, NJIT, USA

It was always a treat to visit Ken, whether he showed his labs at Penn State or hosted his international meeting. His research enthusiasm was impressive and palpable, and his hospitality was truly famous!

Keiichi Hori, JAXA, Japan

In 1998 to 1999, I stayed at HPCL, PSU as a visiting scholar. I and my wife enjoyed the life there owing to the tremendous kindness of Prof. Kuo and Olivia. His guidance in rocket combustion and the experience of the organization of 7-ISICP (Kyoto, 2007) with him are the treasure for me. Prof. Kuo was a most balanced scientist as a modeler and an experimenter of propellant combustion, and nobody is on par with him. His achievements in the establishment of ISICP and IJEMCP are the greatest for us, and we have to keep them forever.

Charles Kappenstein, University of Poitiers, France

Ken and French history: Three years ago, before 10-ISICP, on a very nice and quiet June Sunday, we made a journey through history with Olivia and Ken. We had a picnic and visit of a very old abbey site (Nouaillé, 7th century) close to Poitiers. Several centuries later, this site was the site of the battle between the Black Prince and the King of France who was captured by the English in 1356. That is one of my pleasant memories of Olivia and Ken.

Benveniste Natan, Technion, Israel

Ken was a great man and his loss was painful to all. Apart from being an excellent scientist and a most important figure in the combustion and propulsion community, he was a decent, warmhearted person, simply a good man. Ken was a mentor for me. He was a milestone in my career. We communicated regularly regarding various issues. I knew that his health was fragile, but the thought that something bad can happen never crossed my mind. In his letters, he was very vivid. His death was a blow for all; of course, mainly for his family. May he rest in peace.

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E. Shafirovich, University of Texas at El Paso, USA

After meeting Ken in 1993 at a combustion conference in Moscow, I met him many times in different places over the world. It was always a pleasure to communicate with Ken. I remember I was impressed by his hospitality during my visit to Penn State in 2006. He was a great scientist and a cordial person.

Valery P. Sinditskii, Mendeleev University of Chemical Technology, Moscow, Russia

I can say on my own behalf that Kenneth Kuo, above all, was the organizer of the well-known International Symposium on Special Topics in Chemical Propulsion & Energetic Materials. In his personal life, Ken loved traveling around the world. Together with him, the participants of the symposium discovered new cities, countries, and continents: Italy, Chile, South Africa, China, Japan, and France. Being an internationally recognized outstanding authority on chemical propulsion and propellant combustion, Professor Kuo always attracted a whole constellation of great scientists to his symposium, which made visiting the symposium an unforgettable event. Ken will always be remembered as a distinguished scientist and, at the same time, a person with whom you liked to communicate.

Bryce Tappan, Staff Scientist, Los Alamos National Laboratory

I first met Ken at the Sixth International Symposium on Special Topics in Chemical Propulsion in Santiago, Chile. Shortly thereafter, I visited Ken for a tour of his lab and introduction to his research group during a trip to see my LANL postdoc mentor, who was then on sabbatical at Penn State. The most immediate observation of Ken's character was how warm and inviting he was, as well as his absolute brilliance in his management of the ISICP conference series. Ken later on invited me to serve on the organizational committee for the ISICP, and later as an associate editor for the IJEMCP. These opportunities had many influences to my career; not only in the simple, measurable benefits such as recognition by my management, but in the exposure to the diverse and esteemed international experts in chemical propulsion and energetic materials. And just as important, these experiences provided me and many others the opportunity to see firsthand the many amazing cultures that make up our scientific community. Ken was one of the rare personalities that served as a bridge for individuals, organizations, and countries, driving the forward progress of human knowledge and collaboration, and providing inspiration and influence for many years to come.

Adri van Duin, PSU, USA

I had the pleasure of joining the Penn State combustion and propulsion group in Fall 2008, and I am greatly indebted to Ken for providing me guidance through my tenure period. Ken was very generous with his time and his advice, and through IJEMCP and the affiliated conferences, provided many valuable contacts. I was greatly honored to be the recipient of a Kenneth Kuan-Yun Kuo Early Career Professor ship.

J. Wen, University of Waterloo, Canada

I started to learn from and know about Prof. Kuo first through his textbook, "Principles of Combustion." That was one of my most favorable textbooks in the field of engineering. I met Ken in meetings and chatted over the phone with him about new research ideas and the journal impact. When he was ill, he was very supportive to my career and offered to write the recommendation letter for my tenure. In academia, Dr. Kuo is a true role model to me.

John F. Zevenbergen, TNO, Netherlands

While getting involved in space propulsion about two decades ago, one of the most concise textbooks was the one by Ken, "Principles of Combustion." Attending the 2003 Joint Propulsion Conference in Huntsville, Alabama, I had the pleasure of meeting Ken and we had a long discussion about the revisions he was planning for his book; he was even contemplating a two-volume set. Ever since, we were in contact, which resulted in me becoming a reviewer and, eventually, an editorial board member of his journal. In the last months of 2015, Ken, while suffering health issues, contacted me and Keiichi Hori with the request if the both of us were willing to become deputy-editors-in-chief of his journal. We both agreed without hesitation, all under the impression that he would soon recover and run the journal again, as he always had done. I am highly indebted to Ken for significantly expanding my knowledge in the field of rocket propulsion and for all the opportunities he gave me during all these years.