## A Memorial Address for Professor Akira Yazawa

Prof. Akira Yazawa, an international giant of copper/non-ferrous smelting passed suddenly away on August 14, 2010 at his home at the age of 84. He earned his Bachelor and PhD degrees at Tohoku University in 1948 and 1960 respectively and became a Professor at the same university. He served as Director of SENKEN/Tohoku University (IMRAM – today) from 1981 to 1986 and as President of Miyagi National College of Technology from 1989 to 1995. He was President of the Society of Calorimetry and Thermal Analysis, Japan from 1987 to 1989 and President of MMIJ from 1989 to 1990.

Prof. Yazawa was renowned worldwide for his impact in Extractive Metallurgy of copper as well as Zn, Pb, Ni, Sn, Sb, Au, Hg and Cd. His over 300 publications dealt with a variety of subjects such as slags, alloys, mattes, speiss, aqueous solutions, alcohols, algae, etc. A truly international professor and industrially oriented academician he brought many overseas graduates to his laboratory, Tohoku University, where he raised 17 international Ph.D.'s, in addition to a number of Japanese engineer doctors. He taught pyrometallurgical thermodynamic courses at many overseas institutions: Kosice Technical University (Slovakia), Santa Maria University (Chile), Melbourne University (Australia), to name a few. Prof. Yazawa has been recognized worldwide with many awards, prizes and honors such as:

- Meritorious Award Japan Institute of Metals 1965.
- Silver Medal for Academic Contribution Government of Czechoslovakia 1967.
- Best Paper Award Min.Metall.Inst.Japan 1978
- Extractive Metallurgy Lecture Award TMS-AIME 1979
- Tanigawa–Harris Award Japan Institute of Metals 1979
- Best Paper Award of Canadian Metallurgical Quarterly CIM 1981
- Hofmann Prize International Consortium for Lead 1983
- Best Paper Award Japan Institute of Metals 1984
- Best Paper Award Min. Metall. Inst. Japan 1984
- Best Paper Award Min. Metall. Inst. Japan 1985
- Honorary Professor Institute of Chemical Metallurgy, Chinese Academy of Science 1987

- Honorary Professor Central South University of Technology, China – 1989
- Honorary Member Korean Institute of Metals 1991
- Best Paper Award Min. Material Process. Inst. Japan – 1991
- Honorary Doctor Kosice Technical University, Slovakia 1992
- Order of Sun Rise Decoration (3rd Class) Japanese Government – 1999.

His prolific research and publication career saw no slow-down with age and in his 70s he has published more than 30 high valued papers in the fields of slag thermodynamics and environmental chemistry.

Today Prof. Yazawa has become one of the most quotes authors in extractive metallurgy, and in the last quarter of the century his works have been cited in virtually all the pyrometallurgical reference books published in any language, including the four texts books written by Prof. Yazawa and his collaborators. He was honored in 2003 by the massive Yazawa International Symposium that I had the priviledge to organize in San Diego, California, 2003. This symposium was a record of the time in its class in terms of the number of papers received around the world (about 300 from 520 authors in 37 countries), the massive proceedings published of about 3000 pages, the sponsorship of about 28 professional organizations worldwide, the financial support of 10 industrial corporations and more than 60 individual donors.

I and my colleagues have had the privilege to have been working closely with him in the last 12 years in several industrial copper smelting projects funded by several corporations. We have also been honored to publish together with



2 F. Kongoli

him numerous scientific peer review articles, conference papers (many yet to be published) and having presented along with him several lectures in international conferences and other venues.

Professor Yazawa always managed a fit and a very healthy life and his sudden death came as a shock. You could not associate the death with him or at least it always looked very far away from him. Despite his age he was very young in spirit and always strived for new modern developments. He embraced and also pioneered new realities easily. As a practicing musician he used to compare his stronghold, equilibrium thermodynamics, with the classical

music of Johan Sebastian Bach. He had especially a great esteem for us and our work and expressed this in numerous occasions during his lectures in international conferences and other venues. He will be greatly missed by all of us, his colleagues and ex-students around the world but especially by his wife Kimi, his son and two daughters.

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