



IMPC

The XXIV International Mineral
Processing Congress
Beijing 2008

Proceedings of
**XXIV INTERNATIONAL
MINERAL PROCESSING
CONGRESS**

BEIJING CHINA 24-28 SEPTEMBER

ABSTRACTS



Edited by

WANG DIAN ZUO SUN CHUAN YAO

WANG FU LIANG ZHANG LI CHENG HAN LONG





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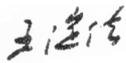
Forward

Five years ago, at the IMPC council meeting in Capetown, China had the honor to host 24th IMPC in 2008. Just two years ago, we had an excellent IMPC in Istanbul, which drew more than 500 participants, with 460 papers published, and from which we enjoyed most impressive hospitality. While extending our sincere congratulations to Professor Guven Onal and his organizing team, we also felt the pressure of hosting the up-coming IMPC in Beijing, especially the pressure from the paper submission because there were only 16 months left. Thanks to the efforts and contributions from all aspects of global mineral processing community, the prominent result has been achieved. Before the deadline of 31 January 2008, we have received more than 800 abstracts, which obviously demonstrates the enthusiasm and support of our peers from 46 countries. Around 600 full paper submissions are finally accepted and published after the peer review by a dedicated committee in terms of both technical and editorial content. A lot of paper submissions are from China, a country not only hosting this IMPC, but also having more than 200,000 mineral processing practicans as well as thousands of mineral processing plants. The Chinese authors' enthusiasm in contribution also reflects the significant achievements China has made in the last decades, including the technology for processing refractory iron ores, the technology for processing poly-metallic complex sulfide ores, the flotation of silicate and oxide minerals, and the new high-efficiency large-scale processing equipment. Other countries, including Australia, Russia, U.S.A, Turkey, and South Africa, contributed more papers. Based on the statistics of the papers submitted, all those 22 topics we are calling for have received the contributions, and the top five topics are complex ore processing, nonsulphide ore flotation, mineral materials, bio hydro-metallurgy as well as solid waste treatment and recycling, that obviously represent the current trends in the field of mineral processing.

In IMPC Beijing, we would like to follow all those well-established traditions in previous IMPCs and pass it down as the indispensable symbols of IMPC. At the same time, IMPC Beijing will also be featured with some initiatives which we think would benefit both the IMPC itself and the mineral processing community as a whole. During the paper submission, an author's guideline was required of each author in order to let them regulate their papers in a proper format. It worked well and was also to the good of proceedings edition. In addition to the three proceeding volumes, a special volume of abstracts will be published as well, which would be convenient for the participants to carry during the Congress. To encourage more young scholars to participate the IMPC, the Young Author Award will be established in IMPC Beijing, and 10 excellent papers will be selected, which is of significance not only to recognize their outstanding achievements in the early or middle stages of their careers, but also to reflect the directions the research and industry might be heading in the near future.

At the moment of the proceeding's final compilation, I would like to make a grateful acknowledgement to so many people. First of all, my gratefulness goes to the IMPC Council

members. It is your wise decision five years ago that brought the IMPC to China, actually to Asia, for the first time. We really appreciate it. My thankfulness also goes to my Australian peers, and Mr. Rod Elvish, the overseas vice president of China Organizing Committee, who have been playing active roles in the Congress preparation period. I would further extend my gratitude to our proceedings editorial team led by Professor Sun Chuanyao. Passion, devotion, hard-working, efficiency and preciseness, all those words highlight their excellent job. In addition, I would thank the Science Press for its professional work, and last but not least, all the paper authors. Without your participation and contributions, we would never make the proceedings and the Congress come true.



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