## In Publishing This Special Issue on the Technical Research Laboratories



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This year marks the 30th anniversary of the relocation of the headquarters of Kawasaki Steel Technical Research Laboratories from its original home at Fukiai Works (Kobe), in May 1969, to Chiba Works. During these thirty years, the Technical Research Laboratories have been able to fulfill their mission as the research base not only for Kawasaki Steel, but also for the companies of the Kawasaki Steel Group, thanks to the guidance and support by our customers, governmental agencies, universities, and academic associations. In publishing this Special Issue on the Technical Research Laboratories, we would therefore like to express our profound appreciation to all those who have so generously assisted us over the years.

The environment surrounding the Japanese economy has undergone great changes in the last three decades. Particularly over the last ten years, accompanying the globalization of the economy, there has been considerable progress in structural reform, aimed at achieving autonomous stable growth, and Japanese society as a whole has changed remarkably. Although this process is not without pain resulting from deregulation and other changes, it will lead to the creation of new business opportunities and new demand in fields where there are strong opportunities for technical innovation. For example, the current trend toward the pursuit of a "resource recycling society," which shows new directions for technological development, suggests the necessity of refining our strategies for research and development not only in iron and steel technology, but also in peripheral technologies such as solar energy and the re-utilization of wastes.

Amid the sudden movements that characterize the present world, where today's valuable technologies can be obsolete by tomorrow, it is difficult to keep up with change if we are captive to the accepted ways of thinking. To survive in this ever-changing environment, it is essential to grasp the present situation with possibility thinking, and then to make a quick response to the changes. Up to now, the Technical Research Laboratories have conducted process and product development linked to the next generation. Morcover, aiming at growth as a group, we have promoted research through cooperation with other companies in the Kawasaki Steel Group. We have also carried out studies to uncover new topics for research and development which will lead to future business expansion, and we have striven to achieve new development in our R&D activities. In the future as well, research and development will continue to be the casting vote in our corporate survival. Thus, we intend to promote these activities even more vigorously than we have heretofore.

Because steel is overwhelmingly superior to other materials in price, strength, recyclability, and other characteristics, its future potential and possibilities are continuing to expand greatly. For our part, we must thoroughly investigate the value of steel as a material which still conceals limitless possibilities. Moreover, I believe that our continual efforts to make the superiority of steel even more certain, through expanded process innovation, new products, and new applications, will also respond to the requirements of society. In the Technical Research Laboratories, it is necessary that we take initiative in conducting research which will lead management strategy, based on beliefs that are

backed by accurate powers of insight.

Moreover, individual researchers must recognize the changes of the times and change themselves accordingly. It is of course still essential to set high targets and deepen one's knowledge of one's own field of specialty, but it has also become important to broaden our vision and exchange knowledge with those in other fields. We must respond to demand which is becoming increasingly diverse and oriented toward higher quality by acquiring deep insight and sharp foresight.

In publishing this 30th Anniversary Special Issue on the Technical Research Laboratories, I can mention only a small part of my beliefs about research and development. However, I would like to ask that all those concerned will continue to support the Technical Research Laboratories of Kawasaki Steel with their guidance and encouragement.