FOREWORD

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With improvements in the quality of sheet products in recent years, sheet has come to be more widely used in the automotive panels, electrical appliances, containers, and construction materials, and new methods of use have been developed. Accordingly, the requirements for dimensional accuracy, strength, workability, weldability, and corrosion resistance have become increasingly sophisticated.

On the steelmaker's side, techniques such as continuous casting, direct hot rolling, linkage of pickling with cold rolling, and continuous annealing have led to both significant cost reductions and remarkable improvements in product quality uniformity and dimensional accuracy. Great strides have been made in widthwise thickness accuracy thanks to the development of profile control technology. Recently, the industry has also experimented with and developed a variety of coating technologies in response to the need in many quarters for a technical solution to the problem of corrosion. Other needs include materials with both high strength and good workability for weight reduction in the auto industry, which is seen as a way of meeting CAFE (Corporate Average Fuel Economy) requirements, and improved weldability in vibration damping materials.

In response, our task is to determine how we can best meet the requirements of sheet applications, considering competition and cooperation with other materials, and to ensure that we can in fact provide the product.

I am pleased to say that over the years Kawasaki Steel has won a number awards for products which satisfy customers' needs, including the 1985 Technology Prize of the Okochi Memorial Prize for "RIVERWELT," a new type of coated sheet steel for food cans which made an important contribution to the shift from soldered to seam welded cans in Japan, the 1988 Ichimura Prizes in Industry-Contribution Prize for extra deep drawing bake-hardening high-strength sheet steels, which has assisted automakers in their auto weight reduction efforts, and the 1989 Production Prize of the Okochi Memorial Prize for "LASER MIRROR," a sheet steel which provides excellent reflectivity in painted auto bodies for an enhanced feeling of quality.

This Special Issue of Kawasaki Steel Technical Report focuses on technologies recently developed and introduced by Kawasaki Steel Corporation. As always, we hope that our readers will find the work represented here both interesting and valuable.