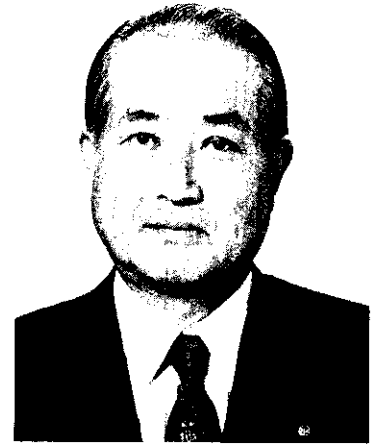


FOREWORD



Osamu Sato

Member of the Board and Executive Vice President

Today, as we begin the 21st century, the total world population exceeds 6 billion and is continuing to rise. At the start of the 18th century, the world population was approximately 500 million, but reached 1 billion around the beginning of the 19th century and 1.5 billion at the start of the 20th century. Although local problems were involved, the self-cleaning mechanism which preserves the global environment had functioned effectively until that time.

I first heard the word "kogai (pollution)" used as a legal concept in a university lecture on civil law at the beginning of the 1960s. I recall that this impressed me as a completely new idea. At the

time, the world population had already exceeded 3 billion, and environmental problems were becoming manifest on a global scale, including mass consumption of chemical products and fossil fuels in

two environment-related perspectives. The first perspective covers steel materials which respond directly to environmental problems. Eight papers are presented as representative examples, including

"Ferritic Stainless Steels and Pipes for Automotive Exhaust Systems to Meet Weight Reduction and

Options for Electrical Applications and SMAs (Advanced Electrical Steel Heating Materials) (11)