Foreword

Since the last WHEC Conference held two years ago in Stuttgart, Germany, the Hydrogen Energy System is making inroad in several direction. All the major car companies have announced that early in the 2000s, starting 2004, they will market hydrogen fueled automobiles. Some cities have started demonstration projects using hydrogen fueled transit buses. Long lasting, light and clean metal hydride batteries are already commercial for laptop computers. Larger capacity batteries are being developed for electric cars. Phosphoric acid and alkaline fuel cells are already commercialized for electric power generation. There is intensive research and development works going on for other types of fuel cell generators, such as molten carbonate fuel cells, solid oxide fuel cells, and proton exchange membrane fuel cells. Of course, hydrogen is already being used as the fuel of choice for space programs around the world. It will be used to power aerospace transports to build the international space station, as well as to provide electricity and potable water for its inhabitants.

In addition, there is extensive R & D work covering all aspects of the Hydrogen Energy System around the world. The 12 WHEC Conference will provide a focus on these activities by way of its program, presentations and discussions. All facets of the hydrogen energy system will be authoritatively covered. During the four-day event, there is to be an appropriate mix of topical sessions (sessions on primary energy sources, production, storage, transmission, utilization, environmental effects, and economics) in which invited lecturers and formal papers are presented. It is expected that the 12th World Hydrogen Energy Conference will be a landmark event in the world’s accelerating search for new clean and abundant sources of energy. Appropriately, the theme of the meeting is “Hydrogen for the World”.

The proceedings present by in an orderly format the lectures and papers to be presented at the 12th World Hydrogen Energy Conference, with the exception of those which did not reach the editors on time. The latter will be considered for publication in the International Journal of Hydrogen Energy. It is expected that these proceedings will serve as reference in covering the latest developments in the field of Hydrogen Energy.

Juan Carlos Bolcich  
Chairman, 12 WHEC

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President, IAHE
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