

PREFACE

The theme of the 24th Annual International Pittsburgh Coal Conference (PCC) focusing on “Coal - Energy, Environment and Sustainable Development,” covers wide spectrum of important topics on coal technology and environmental issues. The program of this year’s conference held in Johannesburg, South Africa, includes over 300 papers presented in 3 plenary, 54 oral and 4 poster sessions over three days. The presentations provide in-depth discussions in various areas encompassing combustion, gasification and environmental control technologies; hydrogen from coal; coal utilization by-products; materials, instrumentation, and controls; global climate change: science, sequestration, and utilization; synthesis of liquid fuels, chemicals, materials and other non-fuel uses of coal; Fischer-Tropsch Technology; coal chemistry, geosciences and resources; and coal production and preparation; as well as Coal and Sustainability.

The Plenary Sessions feature several keynote addresses by an international panel of coal industry and environmental issues experts. Speakers include: **Pat Davies**: CE of SASOL, South Africa; **Roger Wicks**: Head of Energy - Anglo American, South Africa; **Dr. Steve Lennon**: MD Resources and Strategy, ESKOM, South Africa; **Christopher Higman**: MD Syngas Consultants, United Kingdom; **Professor Rafael Kandiyoti**: Chemical Engineering, Imperial College London, United Kingdom; and **Dr. David Harris**: Theme Leader: Low Emissions Electricity, CSIRO, Australia.

This interactive CD-ROM serves as a permanent record of the Conference Proceedings and offers the reader a convenient means to retrieve technical papers and other information related to the conference. It is hoped that the technical and environmental issues presented at this Conference will serve to stimulate future dialogues for clean and environmentally friendly use of coal by the international communities to achieve the ultimate goal of improving the quality of life for all mankind.

On behalf of the Conference Advisory Board, Conference Committees, North West University (Potchefstroom Campus-South Africa), and the University of Pittsburgh, I wish to express my sincere appreciations to Sasol, Eskom, Exxaro Coal, and Angelo Coal for their generous sponsorship of the PCC in South Africa. My gratitude goes to Professor Shiao-Hung Chiang for his invaluable mentorship and continuous nurturing of the International Pittsburgh Coal Conference. My personal thanks go to Drs. Chris Reinecke and Johan van Dyk for inviting the PCC to South Africa and for their dedication and exceptional service to our Conference over the years. My personal gratitude goes to Professor Frans Waanders from North West University (Potchefstroom campus) for his tremendous help and hosting the PCC in South Africa. Ms. Brenda Pierce, Chair and Dr. Robert Beck, vice-Chair of the Advisory Board have provided the leadership in setting the organizational policies for the Conference. The Program Committee chaired by Gary Stiegel, Tarunjit Butalia, and Johan van Dyk; and assisted by Evan Granite is responsible for the Conference’s outstanding technical program.

My personal appreciations go to all session chairs, Conference participants, plenary speakers, authors/presenters, and members of the Advisory Board and the South African Steering Committee. The administrative support by the School of Engineering, University of Pittsburgh and the financial support of Pitt Award by CONSOL Energy, Inc. are gratefully acknowledged. Special thanks go to Mrs. Adrian Starke and Mr. Rob Toplak for their invaluable help throughout the conference. I wish to express my sincere appreciation to Mr. Yannick Heintz and Mr. Laurent Sehabiague for their consistent help and effort in preparing the CD-ROM Conference Proceedings and to Ms. Heidi M. Aufdenkamp for her kindness, effectiveness, proficient assistance and enthusiasm in managing the overall operation of the Conference.

Badie I. Morsi
Editor and Executive Director
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