

Materials Challenges in Alternative and Renewable Energy II

Edited by

George Wicks

Jack Simon

Ragaiy Zidan

Robin Brigmon

Gary Fischman

Sivaram Arepalli

Ann Norris

Megan McCluer

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*A Collection of Papers Presented
at the Materials Challenges in
Alternative and Renewable Energy
Conference, February 26–March 1, 2012,
Clearwater, Florida*

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Materials Challenges in Alternative and Renewable Energy II

Preface

Materials Challenges in Alternative & Renewable Energy (Energy 2012) was an important meeting and technical forum held in Clearwater, Florida, on February 26–March 1, 2012. This meeting, organized by The American Ceramic Society (ACerS), represented the third conference in a new series of inter-society meetings and exchanges, with the first of these meetings held in 2008, on “Materials Innovations in an Emerging Hydrogen Economy.” The current Energy Conference- 2012 was larger in scope and content, and included 238 participants from 19 countries and included more than 200 presentations, tutorials and posters. The purpose of this meeting was to bring together leaders in materials science and energy, to facilitate information sharing on the latest developments and challenges involving materials for alternative and renewable energy sources and systems.

Three of the premier materials organizations in the U.S. combined forces with ACerS to co-sponsor this conference including ASM International, The Minerals, Metals & Materials Society (TMS), and the Society of Plastics Engineers (SPE). Between these four societies each of the materials disciplines, ceramics, metals and polymers, were represented. In addition, we were also very pleased to have the support and endorsement the Materials Research Society (MRS) and the Society for the Advancement of Material and Process Engineering (SAMPE).

Energy 2012 was highlighted by eight plenary presentations on leading energy alternatives. In addition, the conference included technical sessions addressing state-of-the art materials challenges involved with Solar, Wind, Hydropower, Geothermal, Biomass, Nuclear, Hydrogen, the Electric Grid, Materials Availability for Alternative Energy, Nanocomposites and Nanomaterials, and Batteries and Energy Storage. This meeting was designed for both scientists and engineers active in energy and materials science as well as those who were new to the field.

We are very pleased that ACerS is committed to running this materials-oriented conference in energy, every two years with other materials organizations. We be-

lieve the conference will continue to grow in importance, size, and effectiveness and provide a significant resource for the entire materials community and energy sector.

GEORGE WICKS

Savannah River National Laboratory

Energy Conference- 2012 Co-Organizer/President ACerS

JACK SIMON

Technology Access

Energy Conference- 2012 Co-Organizer/Past President ASM International

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