

Guest Editorial

Special issue of IJER: The changing energy paradigm, challenges, and new developments

The worldwide scarcity of fossil fuels regarding primary energy demand together with growing environmental concerns have raised new challenges to the world economy, and led to changes in the energy paradigm. Industry, services, researchers, and the Academy are challenged to envisage new solutions through setting up new conversion processes, designing new power systems, and investigating and developing new energy sources and vectors.

The 'The Third International, Energy, Exergy and Environment Symposium' held at the University of Évora, Portugal, from 1 to 5 July 2007—followed the first held in Izmir, Turkey (2003), and the second held in Kos, Greece (2005), of a series of Symposiums founded by Professor I. Dincer and dedicated to the energy problem—brought together researchers from all continents who addressed a broad list of energy- and environment-related topics. New and clean energy technologies, fuel alternatives, process optimization, exergoeconomics and thermoeconomics, sustainable systems, and environmental issues were especially discussed at this international symposium.

This special issue of the *International Journal of Energy Research* collects some selected papers presented at the Symposium. Broad and up-to-date views on flow systems, energy vectors, together with fuel cells, biomass, and energy recovery issues are covered in this collection. The Guest Editors are grateful to the authors who contributed to this special issue and to all colleagues who participated in the review process.

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