

Preface

The growing energy demands and the urgent necessity to curb greenhouse gas emissions have promoted the advancements of a broad range of possible solutions meant to mitigate the impact of our society on our environment. Among the different approaches to limit our footprint, thermoelectric materials have been positioned as a prime candidate to recover energy from heat that would otherwise be deemed wasted. The physics of thermoelectricity alone, namely the Seebeck effect, is unambiguously appealing. However, the engineering and commercial realities have been a major obstacle to the wider acceptance of thermoelectrics in practical applications. *Economically* viable generators have so far evaded the thermoelectric community.

The 11th European Conference on Thermoelectrics provided an international forum for discussion and a dissemination venue for thermoelectrics. Under the mandate of the European Thermoelectric Society, the event was organized by the European Space Agency at the European Science and Technology Centre (ESTEC) in Noordwijk, The Netherlands on November 18–20th, 2013. The Proceedings from the 11th European Conference on Thermoelectrics are a collection of 24 manuscripts that cover topics from material syntheses, the measurement of thermoelectric properties, and the design of modules and generators. The proceedings are being complemented by fully peer-reviewed manuscripts that will appear in a special issue of the *Journal of Electronic Materials*.

The large emphasis of these proceedings on the design of thermoelectric modules and generators reflects the need to grow thermoelectricity beyond investigations limited to the fundamental physical understanding and the material characterization. The future of thermoelectricity may lie in the discovery of new high-ZT material, but we believe that it resides as much, and perhaps even more, in the design of modules and generators where these materials can be best exploited.

We are thankful to all the participants and the authors who submitted manuscripts to the 2013 European Conference on Thermoelectrics. We hope that these proceedings correctly reflect the time and effort that each invested to achieve these results.

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