

A Message From the Editor

Dear authors and readers of the JSEE,

As present Editor of the ASME Journal of Solar Energy Engineering, this is my great pleasure to introduce and promote this August special edition on Concentrated Solar Power and Fuels (CSP and CSF). I have been working as a research scientist in this field for more than 35 years, and to me, the publication of such a special issue is all the more pertinent today that the understanding of the potential of CSP to address some of the world's pressing problems is currently spreading worldwide among the scientific and political institutions.

On this topic, the SolarPACES Conference, the first conference devoted to CSP and CSF, is a good illustration of the increasing interest in concentrated solar technologies. This renowned international conference aims at giving the most comprehensive overview of what is the current state of the art in Concentrated Solar Power and Chemical Energy Systems (SolarPACES is a IEA Annex). It welcomes about 800 well-distinguished experts and has received for the last edition in 2010, Perpignan, France, more than 300 scientific papers on a wide range of topics which have highlighted an important number of scientific and technological innovations.

Among these papers selected by the scientific committee of the 2010 SolarPACES conference, a selection of "Best papers" was accepted for a more detailed and in-depth publication in the August JSEE Special Issue on Concentrated Solar Power and Fuels (additional selected papers from the symposium are scheduled for forthcoming issues of JSEE). On top of that, we have added to the issue other papers also dedicated to CSP but that have been directly submitted to the Journal.

The last recent trends dealing with CSP and solar Fuels are then illustrated in this special issue by 26 papers distributed in the topics below:

- Resource assessment: 3 papers
- Parabolic trough collectors: 4 papers
- Central receiver power plants: 3 papers

- Energy storage: 4 papers
- Modeling: 2 papers
- Solar chemistry and solar fuels: 2 papers
- Water desalination: 1 paper
- Emerging concepts: 4 papers
- Dish/Engine systems: 1 paper
- Facilities and controls: 2 papers

The scientific and technological progress presented through these papers by authors from all over the world is a significant testimony of the growing mobilization toward CSP solutions to fight global climate change problems. According to the 2010 IEA CSP Technology Roadmap, around 10–15% of the world's power could come from CSP by 2050. These are great news that have motivated the industry and research centers to make considerable efforts for improving efficiency in CSP. With the hope to get this technology to play a major role in the global energy supply, I would like to encourage the researchers and industrials to carry on their work in this field. You are also more than invited to submit your research to the JSEE, to exchange your ideas in order to move CSP forward.

I would like to thank the authors who have enabled to publish such a special issue with their excellent papers and the reviewers who have devoted voluntarily their time to review these papers. Also, Guest Editors (Pierre Neveu, Eckhard Luepfert, and Lorin Vant-Hull) and Associate Editors (Akiba Segal, Tatsuya Kodama, Rainer Tamme, Manuel Romero Alvarez, Carsten Hoyer-Klick, and Robert Palumbo) are warmly thanked for their efforts to speed up the reviewing process while maintaining the high standard of the papers. Let us not forget the JSEE Editorial Board and ASME staff who have greatly helped to publish this issue on time.

Gilles Flamant
Editor of the JSEE
Chairman of SolarPACES 2010 Conference