Introduction

Xinping Zhou

Department of Mechanics,
School of Civil Engineering and Mechanics,
Huazhong University of Science and Technology (HUST),
1037 Luoyu Road,
Wuhan, Hubei 430074, PR China
E-mail: zhxpmark@hotmail.com

Biographical note: Xinping Zhou, PhD works in the Department of Mechanics, School of Civil Engineering and Mechanics, Huazhong University of Science and Technology (HUST), PR China. His research interests are renewable energy utilising technologies and systems, problems about climate change, energy policy, life cycle analysis, and computational fluid dynamics. He has published more than 30 articles in journals, proceedings and books. He has been an expert consulted for various international organisations (such as Third World Academy of Sciences).

1 Introduction

Global warming because of the burning of fossil fuels and deforestation has attracted more of the world's attention since the Stern Review pointed out that the overall costs and risks of climate change could rise up to 20% of gross domestic product or more if no effective action is taken. Therefore, prompt and strong actions to develop technologies of utilising clean and renewable energy on a large scale are clearly warranted.

Solar energy is the most source of clean energy free of greenhouse gas emission. There are a variety of technologies developed to take advantage of solar energy including power generation (e.g. PV and thermal power generations), heating, drying, cooling, ventilation, etc.

This special issue provides the findings of the specialists in different study areas. The collection of these articles will offer a major step forward in both understanding and improving utilising technologies of solar energy.