

## **ENI AWARD 2009**

### ***Renewable and non Conventional energy Prize***

#### **Winner**

#### **Martin Green**

#### **Third Generation Photovoltaics and Leadership in International Photovoltaics Development**

#### **Biography**

Martin Green has been inaugural Australian Federation Fellow and *Scientia Professor* at New South Wales University in Sydney since 1999. He is also Executive Director of Research at Australian Research Council Photovoltaic Centre of Excellence of the University and Research Director of the CSG Solar company as well as being on its Board of Directors; CSG solar is a company that began as a joint venture between Pacific Power, a large local utility company, and New South Wales University, for the commercialization of Prof. Green's research group on *Thin Layer Polycrystalline Silicon Solar Cells*.

Martin Green graduated in engineering from Queensland University in 1970 and got his masters degree in 1971. He then went on to study at McMaster University where he obtained his PhD in Solar Energy Research, gradually becoming an eminent person in this field. His knowledge in this field is proved by the numerous scientific prizes which he has been awarded such as the 1999 Australia Prize and the Karl Böer Solar Energy Medal of Merit Award assigned by the Delaware University in 2003, thanks to his innovative studies on solar cells.

In 1999 he was elected member of the Australian Academy of Science and is also member of the Australian Academy of Technological Sciences & Engineering as well as of the Institute of Electronic Engineers. Between 1977 and 1984 he has been visiting professor at the Katholieke Universiteit of Leuven in Belgium, visiting consultant at the Solar Energy Research Institute of Colorado and visiting professor at Huazhong University of Science and Technology in China.

He has written over 300 articles that have appeared in specialized magazines such as Solid-State Electronics, Nature or Advanced Solar Energy Conversion. With his research group he has focused on the study of solar cell efficiency limiting factors and today he can take credit for having improved silicon cells' performance by 25%. With his ongoing research work he thus contributes to performance improvement and consequently to a very likely increase of mass use of solar energy.

## **Reasons for the choice**

Prof. Martin Green has given fundamental contributions that have enhanced the viability of photovoltaic solar Energy conversion as a large scale sustainable energy source. With his research team he has been able to produce the first silicon cell producing 25% efficiency milestone. The objective has been pursued both through fundamental research achievements and by stimulating and organizing activities leading to reduced manufacturing cost.

On the whole the activities of Prof. Green offer an effective contribution on the challenge posed by the increasing demand of clean energy.