



The Abdus Salam
International Centre for Theoretical Physics



WORKSHOP ON NEW MATERIALS FOR RENEWABLE ENERGY
17 - 21 October 2011, ICTP, Trieste

PHOTOELECTROCHEMICAL SOLAR ENERGY CONVERSION

Teketel Yohannes ANSHEBO
Addis Ababa University, Dept. of Chemistry
Addis Ababa, Ethiopia

ABSTRACT 1:

Photoelectrochemical cells (PECs) provide alternatives to conventional photovoltaic solar cells. Photoelectrochemical cells are based principally on the semiconductor-electrolyte junction. It is the semiconductor's ability to absorb light and convert it to electrical and/or chemical energy that forms the basis for the semiconductor-electrolyte junction solar cell. Here we look into the historical account, basic principles, present status and emerging trends of photoelectrochemical solar energy conversion.