Preface

Photovoltaics (PV) is the conversion of light into electricity using semiconducting materials that e xhibit the photovoltaic effect, a phenomenon studied in physics, photochemistry, and electroche mistry. The photovoltaic effect is commercially used for electricity generation and as photosensors. Photovoltaic technology helps to mitigate climate change because it emits much less carbon dioxide than fossil fuels. Solar PV has specific advantages as an energy source: once installed, its operation does not generate any pollution or any greenhouse gas emissions; it shows scalability in respect of power needs and silicon has large availability in the Earth's crust, although other materials required in PV system manufacture such as silver may constrain further growth in the technology.[1]

In the present book, ten typical literatures about Photovoltaic power generation technology rese arch published on international authoritative journals were selected to introduce the worldwid e newest progress, which contains reviews or original researches on Photovoltaic power ge neration technology research. We hope this book can demonstrate advances in Photovolt aic power generation technology research as well as give references to the researchers, s tudents and other related people.

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[1] https://en.wikipedia.org/wiki/Photovoltaics