



## Results in Physics

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# Fabrication and characterization of TiO<sub>2</sub>/SiO<sub>2</sub> based Bragg reflectors for light trapping applications

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## Highlights

- Fabrication of [Bragg reflectors](#) via simple and cost-effective method is presented.
- Seven-DBR stacks of TiO<sub>2</sub>/SiO<sub>2</sub> showed maximum reflectance 90% at wavelength 617 nm.
- FESEM image confirmed the alternate layers of TiO<sub>2</sub> and SiO<sub>2</sub> films in one-direction.
- The proposed solar cell design with 7DBR stacks improved the [light absorption](#).

## Abstract

Distributed Bragg reflectors (DBRs) have received an intensive attention due to their increasing demand in optoelectronic and photonic devices. Such reflectors are capable to prohibit the light propagation within the specified wavelength range of interest. In this paper, we present the