Objective

PV producers have a strongly demand for high transmission glass. Glass is desirable for numerous properties and applications, including optical clarity and overall optical visual appearances. For some optical properties like transmittance, reflectance, and absorption are desired to optimize.

The objective of the present work is to develop an anti reflecting coating on glass substrate, which would be good transitivity, environmentally stability, good heat stability, easy and cheap to produce. All those entire criterions would be fulfills by the chemical etching of glass substrate.

Simply due to apply chemical treatment process on glass substrate we can achieved overall an increase of transmittance on both side of glass substrate as well as Environmentally stable chemical layer.

It is proposed to carry out the work with the following specific objectives-
1) To increase transmittance of glass substrate.
2) Optimizing the optical characteristics of glass substrate.
3) Determination the pH value of anti reflecting coating solution.
4) Transmittance value interpretation by using UV-VIS spectrometer.
5) Establish the process condition.
7) Confirmation of environmentally stability as verified through IEC 61646 standard.
8) Determine the top layer textured of treated and untreated glass by using instrumentation like Atomic force microscope (AFM), Scanning electron microscopy (SEM)
9) Making photovoltaic modules using treated glass substrate and check efficiency of photovoltaic modules.
10) Calculation of Pmax and Isc after preparation of photovoltaic modules.