

# Controlling Light to Make the Most Energy From the Sun

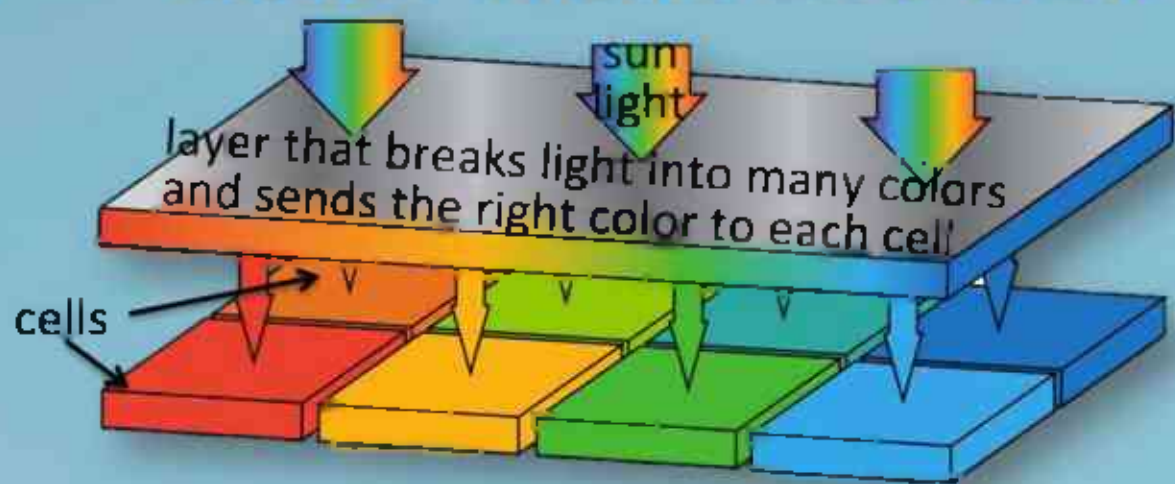


LIGHT-MATERIAL INTERACTIONS  
IN ENERGY CONVERSION

Tiny bits of light from the sun come in many different colors – it's hard to use them all.

We change sun light into energy with tiny man-made cells, and use light grabbers and mirrors to make the most power.

## Catching Every Color from the Sun



We can also make energy from every color of the sun by breaking the light into many colors, having many cells, and sending the right color to each cell. This would make the most power!

## Tiny Cells Make Big Power

Many hundreds of tiny cells are in this picture

Each black line is one cell

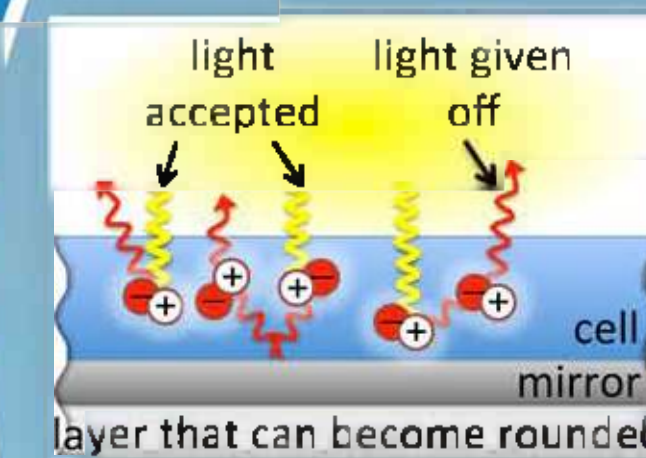
A single cell

Five times smaller than a human hair

These tiny man-made cells change sun light into energy that can be used to power our world.

A piece of paper is 100 times thicker than this tiny cell.

## The Best Cell Also Gives Off Light

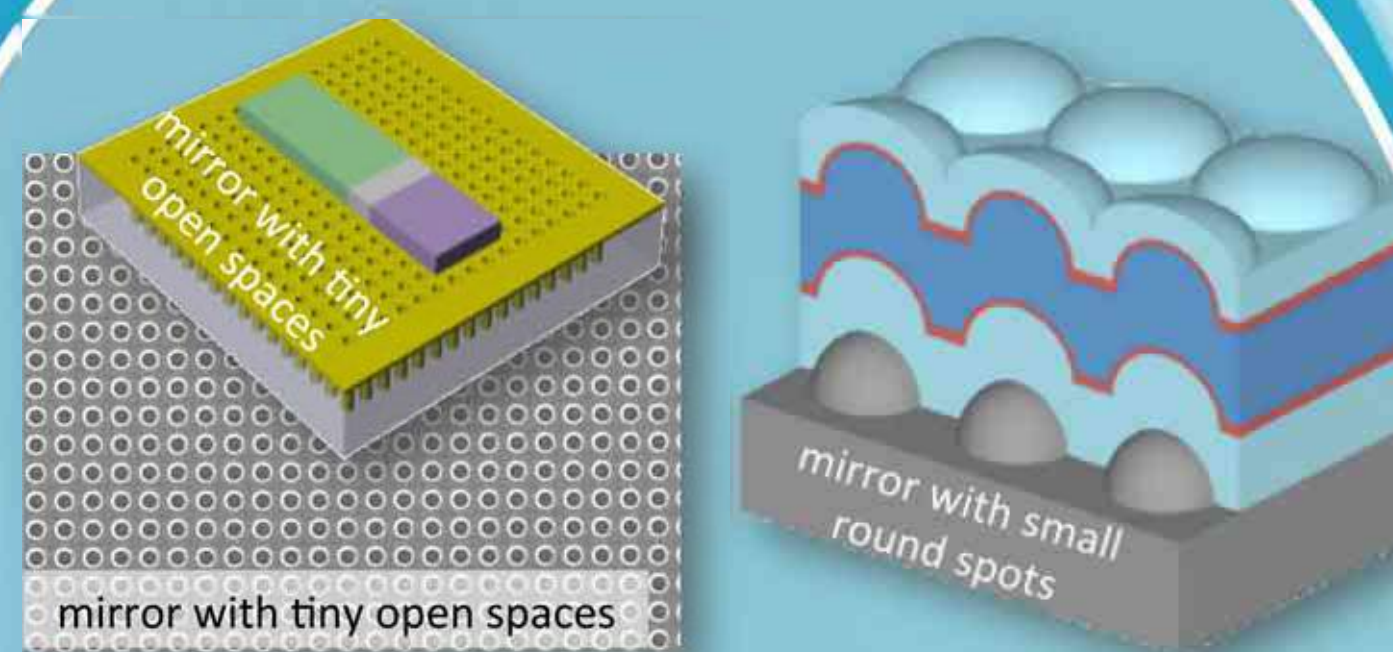


The best cells accept and also make light with the help of a very good mirror to keep light from just passing through.

This is the best cell of its kind in the world.



## Light Grabbers



A mirror either with tiny open spaces or covered with small round spots can help the cell help grab more light, making more power in a cell that is less thick.



With these new ideas, we can power our world for a greener tomorrow.