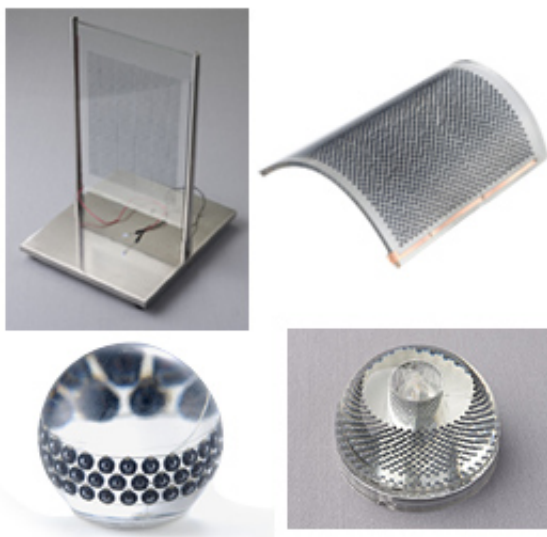


# Think Round: Japanese Company Develops Spherical Solar Cell

October 15 2007, by Mary Anne Simpson

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Kyosemi Corporation has developed a highly efficient round solar cell. The Sphelar is a registered trademark of Kyosemi Corp. The advantages of the Sphelar is its unique ability to capture the sun in all directions and utilize indirect and diffuse light. The other feature is in production. It utilizes a method wherein there is little waste of silicon.

The Japanese company Kyosemi Corporation has developed a spherical solar cell called the Sphelar. Given the spherical like shape Sphelar is capable of greater power efficiency and flexibility in applications than

conventional flat solar cell panels. The product measures 1 mm in diameter.

The Sphelar has the unique ability to follow the sun due to its round shape. As the sun takes on different positions dependent on the season or time of day, the Sphelar is capable of capturing the sun rays. Sphelar captures light from all directions. It can capture reflected light and diffused light. Due to its shape the Sphelar by design can capture the sun without artificially having to track the sun as with ordinary flat solar cell panels. The Sphelar light sensitive surface is therefore able to achieve high energy efficiency.

The unique design of the Sphelar with a diameter of only 1 mm to 1.5 mm allows it to be installed in a variety of energy efficient settings. It can be placed in a parallel format or in a series. The advantage of the Sphelar is that it will not block views as some conventional flat solar cell panels have been found to do.

Sphelar is efficient from a manufacturing stand point. As opposed to conventional flat solar cell manufacturing the Sphelar has little or no waste product. The Sphelar is made by a process of melted silicon that is subjected to free fall. Whereby spheres are created naturally by the microgravity conditions. The result creates little or no waste of raw materials. This feature is cost effective and provides efficient use of the rare component silicon.

According to Kyosemi Corp. the production costs in producing Sphelar are halved as compared to the conventional production of flat solar cell panels. In addition, the Sphelar is environmentally friendly both in production and in use.

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