

Wearable Cheap Solar Panel

European scientists have developed light, flexible solar panels that could be sewn on fabrics and placed on surfaces to charge objects ranging from cellphones and DVD players to batteries, according to New Scientist magazine.

Researchers from France, Portugal and the Netherlands collaborated to develop new thin film technology which paves the way towards cost effective mass production of silicon-based solar energy devices. The 'h-alpha solar' project aimed at development of industrially applicable production techniques for solar cells using polymorphous silicon with stable efficiencies above 10%, exploring in-line batch as well as continuous roll-to-roll techniques.

The new panels are made using polymorphous silicon instead of crystalline silicon, the thickness is little more than one micrometre, up to 10 times thinner than conventional panels. The yield is not so good, though. The best solar panels have an energy efficiency of 20%, but the new cells are only about 7%.

"The new solar panels will be cheap too, because they can be mass-produced in rolls that can be cut as required and wrapped around clothes," New Scientist magazine said on Wednesday.

The Akzo Nobel, a partner in the research, already has a pilot plant producing rolls of silicon cells. A projected full-scale manufacturing plant would produce panels at a cost of 1 EUR/Watt-peak.

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