

One uses light to generate electricity, while the other uses electricity to generate light. Yet solar cells and organic electroluminescent displays share similarities in the molecules they harness for work.

Companies such as Mitsubishi and Sumitomo develop ways to process these molecules in liquid forms, hoping to launch "spreadable electronics" that could produce cell phones that self-charge when placed in light, walls that illuminate, or TVs that can be rolled down like a screen for viewing.

Mitsubishi is leading development of a solar cell based on organic thin film. Spread on the back of a cell phone and heated, the molecular mix evaporates to leave a layer only 100 nanometers thick but with enough electrons to recharge the phone battery n sunlight (or even light from a lamp).

Sumitomo is also developing a spreadable solar cell. Spread on textiles, this material can turn a coat into a wearable solar battery charger for a phone in the pocket or a radio. Spread on fabric for outdoor tents, it can provide electricity to power heaters.

Mitsubishi and Sumitomo Team Up With Light

Written by Bob Snyder 03. 06. 2008

A practical method of "spreading" OLE materials would radically advance the mass-production of larger panels and open up new possibilities, new categories.

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