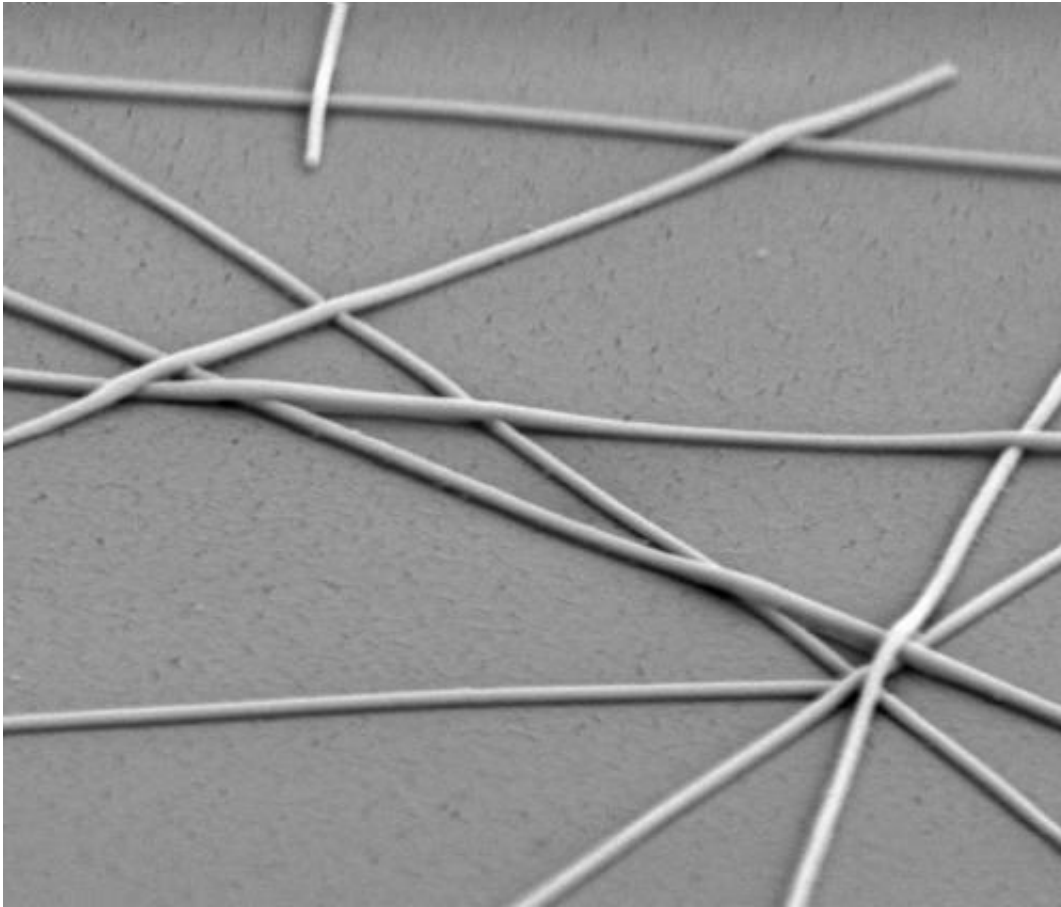


3M teams with Cambrios to produce silver nanowire ink for touch displays

December 24 2013, by Bob Yirka



Magnified silver nanowire. Credit: 3M

(Phys.org) —3M has announced a joint venture with Cambrios Technologies, a nanotechnology company, to produce a new line of touch sensitive screens based on silver nanowire ink developed by

Cambrios. The announcement marks a move by 3M into nanowire based technology for touchscreen displays and away from the traditional indium tin oxide design.

Silver nanowire ink is, as its name implies, is a type of ink made out of [nanowires](#)—a nanowire is an elongated structure with a diameter on the order of a single nanometer. Thus, the ink that is made is a mixture of combined nanowires (and other materials)—and because they are made of silver in this instance, are highly conductive. Using them as an ink to cover a screen allows for creating a touch surface that doesn't rely on other sensors to discriminate location—that makes them more easily used in a wider variety of applications.

In the announcement, the two companies report that they will be jointly developing three types of screens based on silver nanowire technology, metal mesh and ITO sensor film. 3M also announced plans to ramp up production of touch screen manufacturing capacity over the next year to incorporate the new silver nanowire based screens.

The new screens will be made using conductive [silver](#) nanowire ink which is patterned using a polyester base. The nanowire [ink](#), the two firms report, is particularly transparent, has very good clarity and very little haze, making it ideal for devices that require a high degree of sharp, clear images. Also, screen resistance can be customized to suit the specifications of individual vendors which allows for varying response times.

Also noted is that the new screens can be used for both small devices such as phones and tablets and large ones, such as big (touch) screen TVs—they can also be used in applications that require round surfaces or conformity to angles, giving them an edge over tin oxide designs.

The announcement of an agreement between behemoth 3M and the

much smaller Cambrios also suggests that the huge corporations is no longer content to wait for breakthroughs in its own lab and is now willing to forge partnerships with other smaller companies to develop leading edge touch-screen technology.

More information: [news.3m.com/press-release/comp ... re-film-touch-screen](http://news.3m.com/press-release/comp...re-film-touch-screen)

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