U.S. Start-up Solar-Tectic LLC Is Entering the Biosensor Market

Start-up Solar-Tectic LLC Is Announcing its Entry into the Biosensor Market via its Patented Technology Consisting of Silicon Nanowires and FETS

GARRISON, NY, UNITED STATES, July 5, 2025 /EINPresswire.com/ -- Solar-Tectic LLC "ST" is today announcing its entrance into the rapidly growing biosensor (e,g. protein sensor) market. ST holds a number of issued patents based on the technology invented by the late Dr. Praveen Chaudhari, renowned materials physicist, that are highly relevant to the biosensor industry. These include: a silicon nanowire (SiNW) process, thin-film crystalline silicon growth on inexpensive substrates such as glass or plastic, and a method of making Field Effect Transistors (FETs) for chips at low temperature on inexpensive substrates. A key feature of the technologies is the ability to make the nanowires or thin films with a high degree of order, where the nanowires are aligned and the crystals in the films are well ordered or "oriented". As well, the production process is designed in such a way as to be simple and low cost.

> "It's about time we enter the biosensor market - we have several highly useful nanotechnologies for biosensors and all have been patented by the US patent office. A partner from pharma is next."
>
> *Ashok Chaudhari, Founder*

Several relevant peer reviewed papers have been published. In 2010 a paper reporting on the silicon nanowire growth invented by Dr. Chaudhari was published. Another paper has to do with an insulating highly oriented crystalline thin film on glass substrate on which the silicon nanowires (SiNW) and silicon thin films can be "grown"; and yet another reporting silicon thin film transistor (TFT) data based on low temperature crystalline silicon thin film deposition. As well, several papers have been published reporting on crystalline thin film silicon growth on glass including flexible glass using proprietary technology and know-how. While silicon is a primary material used by ST, the technologies are by no means limited to silicon. For example, germanium is another potential material.

Of particular interest to ST is the use of its technologies towards drug discovery, but the patented technologies have many other applications as well and ST is wide open to potential synergies.

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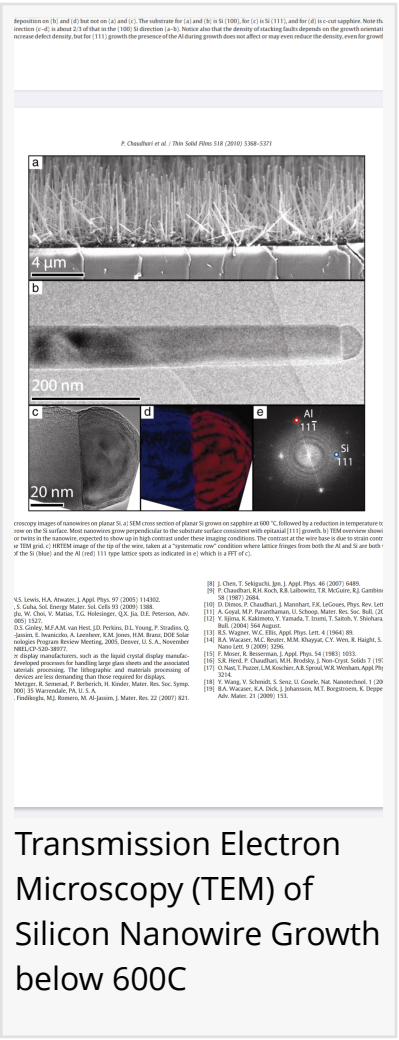

Transmission Electron Microscopy (TEM) of Silicon Nanowire Growth below 600C