

# EoPlex cleans up ceramic printing with 'secret sauce'

August 25, 2009 - by Lisa Sibley, Cleantech Group

EoPlex Technologies is one of 10 cleantech companies the Cleantech Group spotted in the past week looking to raise money. Find out more in this Pitch o' the week.

Redwood City, Calif.-based **EoPlex Technologies** has started fulfilling its backlog of orders with a ceramic printing process that eliminates waste streams.

The company says it's on its way to breaking even, but it just needs a little backing from investors to get there.

EoPlex CEO Arthur Chait told the Cleantech Group today that his company is re-opening its Series B round looking for \$4 million "to close the gap to full profitability," rather than raising another major round of financing. This could come from strategic or new investors, he said.

From there, he said the company would be able to go out with "a clean slate" to raise a Series C round or if the public markets open back up potentially go public, he said.

EoPlex has raised \$18 million to date from investors including ATA Ventures, Draper Fisher Jurvetson, Labrador Ventures and Draper Richards (see [Printing up cleantech](#)).

EoPlex developed a low-cost way to make small, complex parts, and is embarking on plans to use the technology for energy efficient and energy generating products. The company's technology was originally developed to make stints in the medical device market, but was identified to have other uses, Chait said.

EoPlex's process makes components using custom printing equipment and proprietary inks. The three-dimensional components are printed in layers using the special inks, with the ability to use multiple materials, including ceramics, metals and polymers, in the same structures.

"There's a lot of secret sauce to what we do," Chait said. "We put down layers of a part in sheets and fuse them together ... and it looks like sauce. We have secret sauce that looks like béarnaise sauce."

The five-year-old company has an International Organization for Standardization-certified production facility in operation adjacent to its Redwood City location, where it is filling orders for its first commercial product—high tech antennas for cell phones. The 6,000-square-foot facility can accommodate two production lines, he said.

EoPlex's first product combines the multiple antennas needed in today's cell phones, including the main antenna as well as GPS, Bluetooth and Wi-Fi, into one, tiny, monolithic part. The process doesn't have waste streams, machining or etching associated with other processes.

"It replaces older dirtier ceramic and metal processes," he said.

Chait said the company thinks it can produce 10 million units a month at its current site, but is also talking to customers about building module plants adjacent to customer locations so there's no disruption in the supply chain. He said there's a \$500 million-per-year opportunity for the type of antenna the company is pursuing.

Another product it is advancing toward commercialization is a micro lead frame for chips that power devices such as GPS units and iPhones. These micro packages are also made through a cleaner process. Chait said this product is expected to come out sometime next year in volume.

The company has two other products in its research and development pipeline including a hydrogen reformer for fuel cells. First responders would be able to use such fuel cells in emergency situations, instead of carrying heavy batteries.

Its other R&D product is a small energy harvester, also known as an energy scavenger, to generate energy from the vibration of an engine or the rotation of a tire instead of battery-powered units used today. The device senses a vehicle's tire pressure and alerts the driver of under-inflated tires, while helping to improve fuel economy.

However, Chait said the company's commercialization of these two R&D products depends on customer demand.

EoPlex faces competition from companies making antennas using low-temperature co-fired ceramics, a process pursued by Japanese companies Murata and Kyocera.

Email this page print reprint share

Similar stories

- [Printing up cleantech](#)
- [Kyocera to double solar manufacturing](#)
- [Kyocera Solar benefits from Japanese government loan](#)
- [Sixtron sees explosive market for safer solar coating](#)
- [Achatas Power rides diesel wave with clean engines](#)

Supported by **Deloitte.**

Global premier sponsors include



Lead sponsors/partners include



All sponsors | All partners



Peak oil is wrong, says Peter Schwartz

Recent Popular Stories

- [Report says geothermal is leaving wind, solar in the dust](#)
- [EoPlex cleans up ceramic printing with 'secret sauce'](#)
- [Can the U.S. catch up? Getting smarter about the smart grid](#)
- [The top 10 U.S. states for cleantech in 2009](#)
- [Algae expert calls LiveFuels' biofuel-from-fish approach not 'impossible'](#)

Recent Staff Bloggings

- [Tesla Motors sidesteps former CEO's lawsuit](#)  
Cleantech's most litigious startup Tesla Motors is likely ...
- [Will cleantech mobilize to prevent water shortages in India?](#)  
Two new reports this week gave urgency to efforts to ...
- [Workers cut at blade factory](#)  
What do you do with employees who occupy your ...
- [Former CEO goes after Tesla, Musk](#)  
Martin Eberhard wants his second Roadster and his title ...
- [Holy cow! A pie-powered dairy farm?](#)  
Pacific Gas & Electric isn't going to the dogs; ...

Recent Comments

- [Energy recycling](#)  
The key for the Danish is combined heat & power (which ...
- [MASSIVE cost and pollution reduction possible -end returnability](#)  
Immediate and massive (= billions annually in the USA ...
- [EESstor?](#)  
EESstor is vaporware, nothing more. They have demonstrated ...
- [How to purchase device](#)  
Hi, I live in the Chuuk, Micronesia. My dad's island is ...
- [Space Balls Power Company](#)

Kyocera's subsidiaries include solar module manufacturer **Kyocera Solar** (see **Kyocera Solar benefits from Japanese government loan** and **Kyocera to double solar manufacturing**).

Murata has also invested in solar through a technology license agreement with Power-One, which makes products for the solar photovoltaic inverter market (see **The ups (mostly) and downs of cleantech in Q3 2007**).

**EoPlex Technologies is one of 10 potential new investment opportunities the Cleantech Group added to its innovation pipeline this week, available exclusively to members of its Cleantech Network. Members can click [here](#) to search the database.**

Interested in emerging cleantech innovations? Here are two new companies added to the Cleantech Group's database this week also looking for funding:

- San Jose, Calif.-based SunPods is seeking a \$1.5 million in a Series B round to expand into Southern California, add employees and leverage component purchases. The company develops plug-and-play modular, transportable solar power platforms that come in 2.4-, 4.8- or 7.2-kilowatt units.
- Anaheim, Calif.-based Catalyx Nanotech, a spinoff from Catalyx, is seeking \$2 million to scale the business. The company developed what it says is a patented low cost and robust catalytic process to produce 100 percent graphite non-material and 99.9 percent purity hydrogen by cracking methane from any renewable or non-renewable source.

Seeking capital, partners or customers? Submit to the Cleantech's **innovation pipeline**.

Browse past pitches [here](#).

**More**

<a href="#">Advanced batteries</a>	<a href="#">Draper Richards</a>	<a href="#">Labrador Ventures</a>	<a href="#">Solar</a>
<a href="#">Arthur Chait</a>	<a href="#">Energy efficiency</a>	<a href="#">Murata</a>	<a href="#">SunPods</a>
<a href="#">ATA Ventures</a>	<a href="#">EoPlex</a>	<a href="#">Performance monitoring</a>	<a href="#">U.S. West</a>
<a href="#">Catalyx Nanotech</a>	<a href="#">Hydrogen and fuel cells</a>	<a href="#">Pitch o' the week</a>	
<a href="#">Draper Fisher Jurvetson</a>	<a href="#">Kyocera Solar</a>	<a href="#">Power-One</a>	

Coverage brought to you by



Cleantech developments making news in the past 24 hours

- LDK plans to develop 500 MW of solar for Chinese city**
- Report says geothermal is leaving wind, solar in the dust**
- EoPlex cleans up ceramic printing with 'secret sauce'**
- Nissan powers tugs with Oorja's fuel cells**
- Washington startup secures funding for top secret utility-scale solar**
- Inside cleantech India: Kal, Aaj aur Kal!**

View the last week of cleantech developments [here](#) | Subscribe to full feed

Post new comment

Your name: \*

E-mail: \*

The content of this field is kept private and will not be shown publicly.

Subject:

Comment: \*

If they talked to anyone at Lockheed-Martin or Boeing who ...

Poll

**Which stealthy cleantech startup has the best chance of commercialization?:**

- Sakti3, a Khosla-backed maker of lithium-ion EV batteries
- Joule Biotechnologies, converting sunlight into fuel
- Solaren, planning to launch solar arrays into space
- EESor, promising to produce ultracapacitors in 2010
- Bright Automotive, aiming for gas-electric plug-in hybrids in 2012
- Nexeon, developing silicon anodes to improve battery storage
- Don't know — need to read past coverage here

"Your cellulosic ethanol webinar was timely, informative and very well done. There was a great deal of very good information. I have circulated it to a number of associates."

David Jopling, Public Service Commission, State of Florida