

APNT, Solexel, and YHCC Enter Development Agreement for Novel Solar Paste Technology

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Applied Nanotech Holdings, Inc. announced the signing of a joint research, development and cooperation agreement with Sichuan Yinhe Chemical Co., Ltd. (YHCC) and Solexel, Inc (Solexel). The agreement relates to the novel solar paste technology being jointly developed and commercialized by the parties.



Applied Nanotech previously signed a license agreement for its solar ink and paste technology for silicon-based solar cells with YHCC, who has the exclusive worldwide rights to the technology, in July, 2011. YHCC completed construction of its high volume production plant in late 2012 at its high-tech industrial park in Sichuan Province, China. This plant is operated by Sichuan Yinhe Starsource Technology Co., Ltd., a subsidiary of YHCC. The plant is dedicated to high volume manufacturing of metallic (aluminum and silver) inks and pastes for the photovoltaic solar industry under exclusive license from APNT. The plant was designed for a capacity of over 1,000 tons of inks and pastes per year. YHCC has already begun its marketing and sales efforts for Aluminum and Silver pastes for solar cells.

In early January, 2013, APNT announced that Solexel achieved its world record of 20.62% efficiency from a 156 mm x 156 mm full-square solar cell using its low cost ultra thin epitaxial silicon film and porous silicon lift-off technology. This record thin-silicon efficiency was achieved thanks to Solexel's unique epitaxial cell architecture, innovative back contact/back-junction cell design, and proprietary manufacturing process flow, utilizing Applied Nanotech's proprietary aluminum metallization material. Recently, Solexel achieved over 21% solar cell efficiency based on Applied Nanotech's improved aluminum material, reducing significantly the cost of production of energy as expressed in \$ per watt.

This three way agreement between APNT, Solexel, and YHCC will complete the development and commercialization of APNT's proprietary aluminum paste to achieve an efficiency of over 22% in Solexel's unique thin silicon solar cells. Solexel intends to begin volume manufacturing of solar cells in 2014. APNT will transfer the paste technology to YHCC to produce the material for Solexel's products. Based on this agreement, the three parties will also build a strong market-application based, strategic relationship that will be benefit the PV industry.

"It is ideal for us to work with partners, like Solexel and YHCC - companies that combine outstanding technology with the potential to revolutionize the solar industry in the near future, and bring extensive experience in high volume manufacturing as well. We will

continue to improve our aluminum metallization material under this agreement and expect to achieve even higher efficiencies with Solexel in the future,” said Dr. Zvi Yaniv, CEO of Applied Nanotech, Inc., a subsidiary of APNT, “This is another excellent example of our R&D and commercialization capability. Historically, our business model has focused on licensing our technologies to others and providing R&D services. However, in this case, we are involved directly in the commercialization of our technologies that have very large market potential. The royalty that we receive from YHCC related to the sales of their solar paste products will be critical for our cash flow in 2014.”

“We are very pleased to work with APNT and YHCC as our metallization paste and sourcing partners for our business. We plan to use the high volume manufacturing design of the aluminum paste based on APNT’s unique technology in our high-efficiency solar photovoltaic products in the future.” said Dr. Mehrdad Moslehi, Founder, Executive Chairman and CTO of Solexel, Inc.

“This is really a win-win situation for all three parties. The division of labor is very clear and there are no conflicts of interest. APNT is responsible for the research and development of the metallic paste technology, YHCC will focus on manufacturing the paste, while Solexel will utilize YHCC’s paste based on APNT’s technology in their products,” added by Mr. Xianrong Li, Chairman of YHCC.

Source: <http://www.appliednanotech.net/>