

What's New in the World of Superconductivity in April

Power Applications

American Superconductor Corporation (April 16, 2002)

American Superconductor Corporation (ASC) announced the release of the first production run of HTS wires to be produced at their new manufacturing facility in Devens, Massachusetts. The test run will provide a rigorous verification of ASC's manufacturing process. When fully equipped, the facility will be capable of producing 20,000 kilometers of HTS wire per year. Greg Yurek, chief executive officer of ASC explained that "Over the coming months, (the) results of our production tests are expected to validate the new manufacturing process and allow our engineers to continue fine-tuning equipment as we prepare to ramp-up into commercial production. We expect this work to last through the fall, with actual production line output available for commercial sale expected by year's end."

Source:

"American Superconductor Begins Production Test Run of First HTS Wire at New Manufacturing Facility"
American Superconductor Corporation Press Release (April 16, 2002)

<http://www.amsuper.com/>

Material

Superconductive Components, Inc. (April 3, 2002)

Superconductive Components, Inc. (OTCBB) (SCCI) reported income applicable to common shares of \$8,821 for the twelve months ended December 31, 2001 versus a net loss of \$226,190 the prior year. Dan Rooney, President and CEO, stated that their business had been affected by the slowdown that occurred in the national economy in 2001, especially during the fourth quarter. He added that they are beginning to see signs of stabilization and that the order book is improving

Revenue for 2001 improved 14.3% to \$3,663,488 from \$3,205,163 in 2000. Product revenue benefited from increased sales to existing customers, expansion into new markets, and continued growth in the ceramic sputtering target business. These gains were partially offset by a 21.0% decline in contract research revenues versus the previous year.

Largely due to higher sales and better utilization of production capacity, gross margin improved to \$1,199,998, or 32.8% of revenue, for 2001 compared with \$771,745 or 24.1% of total revenue last year. Due to expansion of the company's infrastructure, the reassignment of sales personnel, and higher professional fees, general and administrative expenses rose to \$898,622 for 2001 from \$560,653 a year ago.

Source:

"Superconductive Components, Inc. Reports Year 2001 Results" (Superconductive Components, Inc. Press Release, April 3, 2002)

www.superconductivecomp.com.

Medical

4-D Neuroimaging (April 30,2002)

4-D Neuroimaging has received two new orders from Japanese customers for two different MEG systems. The National Institute of Physiological Sciences (NIPS) in Okasaki, Japan has ordered a Vectorview MEG system as an upgrade to the first MEG system that they purchased from 4-D Neuroimaging in 1994. Gunma University in Maebashi, Japan has also ordered a Neuromag 204 system, which it will use to conduct research in the field of psychiatry.

Source:

"4-D Neuroimaging announces the sale of two MEG systems in Japan"

4-D Neuroimaging Press Release (April 30, 2002)

http://www.4dneuroimaging.com/external_english/html/04-30-02.html

Communication

Superconductor Technologies Inc.(April 4, 2001)

Superconductor Technologies Inc. (SCON) (STI) responded to recent counterclaims by ISCO International, Inc. (ISCO) and denied infringement. ISCO alleges that STI's IMT-2000 SuperFilter Tower Top System for 3G deployment in international markets infringes U.S. Patent No.'s 6,104,934 and 6,205,340. However, STI believes ISCO's complaint is without merit and will vigorously defend itself. The IMT-2000 product is designed and marketed for international customers and deployments, and STI believes ISCO's U.S. Patents do not apply to these applications.

M. Peter Thomas, president & CEO of STI, stated, "ISCO prefers to mount what we believe are unfounded legal challenges rather than pursue a customer focused marketing and sales business strategy. We embrace competition in the marketplace, and believe that strong competitors, by offering a choice of products and solutions, will lead to greatly increased and more rapid adoption of HTS filter technology in the wireless industry." He added, "This latest legal maneuver on the part of ISCO does not alter our product and marketing strategy, nor does it impact our business outlook. If ISCO's attempt to introduce this new claim in the middle of an ongoing case is upheld, we will mount a vigorous defense. We strongly believe that this new claim is without merit and that we will prevail. We also remain confident in our legal position on the '215 patent, and we expect to prevail in that matter as well."

Source:

"Superconductor Technologies Inc. Responds to Latest ISCO International Patent Claim"

(Superconductor Technologies Inc. Press Release April 4, 2002)

<http://www.suptech.com>

Superconductor Technologies Inc. (April 18, 2002)

Superconductor Technologies Inc. (SCON) (STI) announced that the court dismissed the two added patent claims by ISCO International, Inc. (ISCO) filed on March 26, 2002 in the Federal District Court in Delaware. The claims were dismissed for procedural reasons, and will not be considered in the lawsuit concerning U.S. Patent No. 6,263,215 (the "215 Patent").

On March 26, ISCO attempted to add to the pending lawsuit by filing two new infringement claims.

ISCO attempted to add allegations that STI's IMT-2000 SuperFilter Tower Top System for 3G deployment in international markets infringes ISCO's U.S. Patent No.'s 6,104,934 and 6,205,340 which relate to certain tower-mounted applications of cryogenic receiver front-end systems. However, the judge dismissed the new claims as untimely and consigned ISCO to filing a separate lawsuit if it wants to pursue these claims. STI reiterated its earlier statements that it believes the new claims are without merit and that it would prevail in any lawsuit alleging infringement of these patents.

Source:

"Judge Dismisses Additional ISCO Patent Claims" (Superconductor Technologies Inc. Press Release April 18, 2002)

<http://www.suptech.com>

ISCO International, Inc. (April 18, 2002)

ISCO International, Inc. (ISCO) announced today developments in its patent infringement suit against Superconductor Technologies, Inc. (STI) and Conductus Inc. (Conductus).

ISCO announced on April 2, 2002, that it was seeking to add to the existing patent suit new claims involving alleged infringement by STI and Conductus of U.S. Patents 6,104,934 and 6,205,340. These patents, which were issued to ISCO on August 15, 2000 and March 20, 2001, respectively, cover the use of a cryogenic receiver front end ("CRFE") in a tower-mounted configuration. On April 17, the Federal District Judge overseeing the suit determined that the new claims could not be added without jeopardizing its January 13, 2003 trial date. Therefore, the Judge ruled that the new claims must be asserted in a separate action.

Dr. George Calhoun, Chairman and CEO of ISCO stated, "The Court has repeatedly affirmed its intention to maintain the existing litigation schedule. The trial will commence on January 13, 2003, less than nine months from now." He added, "In light of this, the Judge has expressed concern that our additional claims on the tower-top infringement could delay the trial, which he is unwilling to countenance. The Judge has allowed us the option of filing a separate action." "The overt infringement of the tower-top patents that we allege, including STI's display of its tower mount product at the CTIA show in Florida, which occurred in March of this year, did not come to our knowledge until after the trial schedule had been set. We had hoped in the interests of efficiency to bring all these claims together in one suit, but we are pleased that the schedule for the trial of our infringement claims of our U.S. Patent No. 6,263,215 directed to a cryogenically cooled wireless base station front end will be maintained," he concluded.

Source:

"ISCO International Announces Developments in Patent Infringement Suit Against Superconductor Technologies Inc. and Conductus Inc." (ISCO International, Inc. Press Release, April 18, 2002)

<http://www.iscointl.com>

ISCO International, Inc. (April 19, 2002)

ISCO International, Inc. (ISCO) announced today that it has filed a Preliminary Proxy Statement with the Securities and Exchange Commission. In that statement, it is indicated that the Company plans to seek shareholder approval to take appropriate measures, including the possibility of a reverse split of the Company's common stock, in order to meet listing requirements for the American Stock Exchange.

Dr. George Calhoun, Chairman and CEO of ISCO stated, "The Company has been de-listed since June 1999, and we believe that we are now in a position to satisfy the requirements for re-listing." He

added, "We have been in discussion with the American Stock Exchange for some time. The Company believes that the only significant outstanding requirement is its ability to meet the minimum share price requirement of \$3.00 for a new listing. We have an adequate market capitalization, but because we have a large number of shares outstanding, we do not meet the share price requirement." However, he stated, "I believe that it is now time for us to re-list the company. This will allow institutional investors and analysts to consider ISCO for potential investment, which many of them are now precluded from doing because we are not listed. These investors control a large majority of the funds in the financial markets generally, and I believe that we will see a healthy interest from investors who may find our business and our performance attractive. In short, I think this will help strengthen the value of the company," he concluded.

Source:

"ISCO International Announces Filing of Preliminary Proxy" (ISCO International, Inc. Press Release, April 19, 2002)

<http://www.iscointl.com>

Superconductor Technologies Inc. (April 23, 2002)

Superconductor Technologies Inc. (SCON) (STI) announced today record net revenues for the quarter ended March 30, 2002. Total net revenues for the first quarter 2002 were \$4.6 million, an increase of 63 percent vs. \$2.8 million for the first quarter ended March 31, 2001, and an increase of 43 percent over the fourth quarter of 2001. Net commercial product revenues for the first quarter 2002 were \$3.7 million, an increase of 117 percent compared to \$1.7 million in the year ago period, and an increase of 105 percent over the fourth quarter 2001. Government contract revenues for the first quarter 2002 were \$909,000, compared to \$1.1 million in the first quarter ended March 31, 2001.

M. Peter Thomas, STI's President and CEO stated, "STI is off to a strong start in 2002, with the wind at our back from the large order we received in December 2001. In addition to achieving record sales of our SuperFilter(R) products, we benefited from increasing customer acceptance of our high-performance duplexers, which added to our stronger than expected revenues for the quarter."

During the quarter STI began implementation of its plan to triple manufacturing capacity to 600 SuperFilter systems per quarter. As part of this comprehensive facility expansion STI expects to invest approximately \$7 million to expand manufacturing space and capabilities. Once the expansion is in place, STI anticipates that further expansion to 1,000 units per quarter will be possible with modest incremental capital investment and added direct labor.

Thomas further added, "We are smoothly ramping production during this key growth phase, and are taking full advantage of our strategic investments in manufacturing. Shipments improved sequentially by more than 100 percent in the first quarter, with only an 18 percent increase in manufacturing employment. I am confident that our decision to focus on manufacturing as a core competency several years ago is now paying dividends to our customers, in terms of delivery, service and cost."

Source:

"Superconductor Technologies Inc. Reports Record Net Revenues of \$4.6 Million in First Quarter 2002" (Superconductor Technologies Inc. Press Release, April 23, 2002)

<http://www.supotech.com>

Collider

Cornell University (April 19, 2002)

A group of over 50 American physicists met at Cornell University in the first step towards the preparation of a proposal to receive federal development funding for a multi-billion-dollar, 20-mile-long electron-positron linear collider. If the proposal is accepted, the facility would be the largest research machine ever built. Cornell University's Laboratory of Elementary Particle Physics (LEPP) is organizing a national consortium to submit a proposal to the National Science Foundation (NSF) for about US \$1 million. Cornell is also directing the drafting of R&D plans for both the accelerator and the detector components of the proposed collider. Basically, the machine would consist of two high-energy accelerators pointed at each other. Beams of high-energy electrons and positrons would be accelerated at a single microscopic target, and the particles from the resulting collision would be examined. In this manner, the collider could be used to search for the Higgs boson and to explore supersymmetry and antimatter, providing information on the origin of the universe, the structure of space, and the very nature of matter. Four potential designs for the collider are being examined; no agreement has been reached with regard to its final design, funding sources, or location.

Source:

"National consortium proposes 20-mile-long collider"

Cornell University News Service Press Release (April 19, 2002)

http://www.eurekalert.org/pub_releases/2002-04/cuns-ncp041902.php

Basic

Brookhaven National Laboratory (April 5, 2002)

Researchers at Brookhaven National Laboratory, USA, have been using the National Synchrotron Light Source (NSLS) facilities to investigate a mechanism that may explain high-temperature superconductivity. The synchrotron was used to examine the x-ray light that is ejected by HTS materials. Their findings suggest that the high-temperature superconductivity phenomenon may arise as a result of interactions between the magnetic fields of electrons and neighboring atoms.

Source:

"Brookhaven Spotlights: News from the National Synchrotron Light Source"

Brookhaven Spotlights (April 5, 2002)

http://www.bnl.gov/bnlweb/pubaf/pr/news_releases.html

(Akihiko Tsutai, International Affairs Department, ISTEC)

[Top of Superconductivity Web21](#)