

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

**FORM 8-K**

**CURRENT REPORT**  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934

January 27, 2011  
Date of Report (Date of earliest event reported)

Amtech Systems, Inc.  
(Exact name of registrant as specified in its charter)

Arizona	000-11412	86-0411215
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)
131 South Clark Drive, Tempe, Arizona		85281
(Address of principal executive offices)		(Zip Code)

Registrant's telephone number, including area code (480) 967-5146

Not applicable.

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions ~~see~~ General Instruction A.2. below:

- Written communications pursuant to Rule 425 under Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

**Item 1.01 Entry into a Material Definitive Agreement.**

Amtech Systems, Inc. (the “Company” or “Amtech”) entered into a Stock Purchase and Sale Agreement (the “Purchase Agreement”), effective as of January 27, 2011, among the Company, Kingstone Technology Hong Kong Limited (“Kingstone”), Silicon Jade Limited (“Silicon Jade”), the sole shareholder of Kingstone, and certain shareholders of Silicon Jade. Pursuant to the Purchase Agreement, the Company will acquire a majority ownership interest in Kingstone, which is a Hong Kong-based holding company that owns 100% of Kingstone Semiconductor Company Ltd (“Kingstone Semiconductor”), a Shanghai-based technology company specializing in ion implant solutions for the solar and semiconductor industries. The acquisition pursuant to the Purchase Agreement will be consummated upon the satisfaction of certain customary closing conditions, including certain required local government filings, all of which the Company anticipates being satisfied in February 2011.

Amtech will pay \$5.5 million to Silicon Jade, comprised of (i) a cash payment in the amount of \$1,420,000 and (ii) shares of the Company’s common stock with a value of approximately \$4,080,000, and will pay up to \$4 million to Kingstone in exchange for newly issued Kingstone shares, comprised of (a) a promissory note in the amount of up to \$3,690,000 (the “Stock Purchase Note”), and (b) a cash payment of \$310,000 already paid by the Company pursuant to a prior agreement. In exchange for the purchase price of up to a maximum of \$9.5 million, the Company will receive fifty-five percent of the outstanding stock of Kingstone. The amount of \$3,690,000 will be placed into escrow by the Company to be released in accordance with the terms of the Purchase Agreement and applied to the principal balance of the Stock Purchase Note. If certain termination events occur, relating to the achievement of specified milestones in the development of the Solar Tool, the Company will be relieved of its obligation to make further payments on the Stock Purchase Note, but the Company will retain its ownership of fifty-five percent of Kingstone.

In addition to the purchase price described above, the Company has agreed to provide Kingstone with a loan in the amount of up to \$4 million (the “Solar Tool Loan”), to be used for the development and manufacture of two beta versions of the Solar Tool. Upon successful development of the beta version of the Solar Tool, the outstanding principal amount of the Solar Tool Loan will be applied in full satisfaction of the purchase price of two beta versions of the Solar Tool to be purchased by the Company. The Solar Tool Loan will be funded periodically after the Stock Purchase Note has been paid in full. The Company will place \$4 million into escrow for the purpose of funding the Solar Tool Loan in accordance with the terms of the Purchase Agreement. Upon the occurrence of certain termination events relating to the achievement of specified milestones in the development of the Solar Tool, the Company will be relieved of its obligation to further fund the Solar Tool Loan.

The Company has also agreed to make payments to Kingstone upon the achievement of certain milestones in the development of the Solar Tool. Such payments will be used by Kingstone to pay bonuses to certain key developers who are essential to the development of the Solar Tool. The payments for achievement of the three specified milestones are \$400,000, \$500,000 and \$700,000, for a total obligation of up to \$1.6 million.

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If the acquisition does not close pursuant to the Purchase Agreement by April 30, 2011, Kingstone will have the right for a period of 180 days thereafter to terminate the Company's exclusive worldwide sales and service rights to the Solar Tool by repayment to the Company of all amounts provided by the Company prior to such time. Such rights were acquired by the Company pursuant to a previous agreement.

The press release regarding the entry into the Purchase Agreement is attached hereto as Exhibit 99.1.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

Exhibit 99.1 Press release of Amtech Systems, Inc., dated February 1, 2011.

***Forward-Looking Statements***

This Current Report on Form 8-K contains forward-looking statements within the meaning of the federal securities laws and is subject to safe harbors created therein. These forward-looking statements include, but are not limited to, those regarding the anticipated satisfaction of the closing conditions under the Purchase Agreement and the development of the Solar Tool.

These forward-looking statements reflect the Company's current views with respect to future events and are subject to these and other risks, uncertainties and assumptions relating to its operations, growth strategy and liquidity, including the risks set forth in the Company's most recent Forms 10-K and 10-Q filed with the Securities and Exchange Commission. The Company undertakes no obligation to update any forward-looking statements to reflect new information, events, or circumstances occurring after the date of this Form 8-K.

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

AMTECH SYSTEMS, INC.

Date: February 1, 2011

By: /s/ Bradley C. Anderson

Name: Bradley C. Anderson  
Title: Vice President and Chief  
Financial Officer

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**Amtech Agrees to Acquire Controlling Interest in Ion Implant Technology Company Based in China; Strengthens High-Efficiency Solar Cell Strategy**

**TEMPE, Arizona – February 1, 2011** – Amtech Systems, Inc. (NASDAQ: ASYS), a global supplier of production and automation systems and related supplies for the manufacture of solar cells, today announced it has entered into an agreement to acquire a controlling interest in a China-based ion implant technology company located in Shanghai, China. The acquisition is expected to close in February 2011, subject to compliance with formal Hong Kong filing requirements.

Amtech will acquire 55% ownership of Kingstone Technology Hong Kong Limited, a Hong Kong-based holding company that owns 100% of Kingstone Semiconductor Company Ltd, a Shanghai-based technology company specializing in ion implant solutions for the solar and semiconductor industries.

Kingstone's key developers include 5 PhDs (earned at top-tier US and UK universities) who bring over 75 years of combined ion implant experience to the development of the solar ion implanter. Prior to founding Kingstone in May 2009, several of Kingstone's founders, including its CEO, were responsible for successful development and sale of more than ten 300mm ion implant tools to a leading top-tier semiconductor company in Asia.

J.S. Whang, Chief Executive Officer of Amtech, commented, "This acquisition clearly demonstrates our commitment to the successful execution of our strategic goal to become a technology solution provider for our solar customers' need for higher cell efficiency. With this acquisition, Amtech immediately establishes a technology beachhead in a strategically key region of the world, increases its technology expertise, and lays the foundation for future opportunities for its solar business. We believe this acquisition will complement and protect our core solar diffusion expertise and leadership.

"The intense effort by our customers and the solar industry to increase cell efficiency at lower cost will lead to more complex solar cell architecture in the future, and we believe this market is where an ion implant tool could be successfully adopted. We believe that Amtech's leadership in solar diffusion, combined with Kingstone's expertise in ion implant technology, creates the best opportunity for successful development of an ion implant machine for the solar market."

John Chen, Chairman and CEO of Kingstone, commented: "We are very excited to partner with Amtech Systems and look forward to working together on the development and production of innovative solutions to the solar market. The combination of Kingstone's extensive ion implant experience and Amtech's success in the solar market gives us a high degree of confidence in our future."

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Under the terms of the acquisition:

- For its 55% ownership, Amtech will pay \$5.5 million in the form of cash and stock, and will pay up to \$4 million in the form of a contingent promissory note. The payments of up to \$4 million pursuant to the contingent note are to be made to the acquired company and used to fund Kingstone Semiconductor's development of a next generation solar ion implant machine.
- Amtech will have exclusive worldwide rights to sell and service any solar ion implant machine developed by Kingstone Semiconductor.
- Over the next two years, Amtech will provide additional funding for the development of the next generation solar ion implant machine.

Additional information regarding the material terms of the acquisition is set forth in a current report on Form 8-K filed by Amtech, which is available over the internet at the SEC's website at <http://www.sec.gov>.

#### **About Amtech**

Amtech Systems, Inc. manufactures capital equipment, including silicon wafer handling automation, thermal processing equipment and related consumables used in fabricating solar cells and semiconductor devices. Solar cells and semiconductors, or semiconductor chips, are fabricated on silicon wafer substrates, sliced from ingots, and are part of the circuitry, or electronic components, of many products including solar modules (panels), computers, telecommunications devices, automotive products, consumer goods, and industrial automation and control systems. The Company's wafer handling, thermal processing and consumable products currently address the diffusion, oxidation and deposition steps used in the fabrication of solar cells, semiconductors, MEMS and the polishing of newly sliced silicon wafers.

#### **About Kingstone Semiconductor**

Kingstone Semiconductor Company Ltd., headquartered in Shanghai, China, is led by a multinational team renowned in the field of ion implantation. Kingstone believes that its focus on developing and manufacturing leading edge technology based on customer requirements and feedback sets it apart from its competition.

#### **Contacts:**

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