August 22, 2011

Amtech Announces Stock Repurchase Program

TEMPE, Ariz.--(BUSINESS WIRE)-- Amtech Systems, Inc. (NASDAQ:ASYS), a global supplier of production and automation systems and related supplies for the manufacture of solar cells, semiconductors, and sapphire and silicon wafers, today announced that its Board of Directors has approved a stock repurchase program authorizing the repurchase of up to $5 million of its common stock. As of June 30, 2011, Amtech had outstanding approximately 9.6 million shares of common stock.

J.S. Whang, Chief Executive Officer of Amtech, commented, "At current price levels, we believe Amtech's common stock represents an attractive investment opportunity for the Company. We also believe we can continue to invest in the initiatives that are key to our future success as well as enhance the value of our Company by repurchasing common stock under this program."

Under the program, shares may be repurchased from time to time in open market transactions at prevailing market prices or in privately negotiated purchases. The timing and actual number of shares purchased will depend on a variety of factors, such as price, corporate and regulatory requirements, alternative investment opportunities, and other market and economic conditions. Repurchases under the program will be funded from available working capital. The program may be commenced, suspended or terminated at any time, or from time-to-time at management's discretion without prior notice.

About Amtech Systems, Inc.

Amtech Systems, Inc. manufactures capital equipment, including silicon wafer handling automation, thermal processing equipment and related consumables used in fabricating solar cells, LED and semiconductor devices. 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 cells, 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 LEDs and newly sliced silicon wafers.

Statements contained in this press release that are not historical facts may be forward-looking statements within the meaning of the Private Litigation Reform Act. Such statements may use words such as “proposed,” "anticipate," "believe," "estimate," "expect," “goal,” “guidance,” "intend," ”outlook,” "predict," "project" and similar expressions as they relate to Amtech Systems, Inc. or our management. When we make forward-looking statements, we are basing them on our management's beliefs and assumptions, using information currently available to us. Although we believe that the expectations reflected in the forward-looking

statements are reasonable, these forward-looking statements are subject to risks, uncertainties and assumptions including the risks discussed in our 10-K and 10-Q reports and our other filings with the Securities and Exchange Commission. If one or more of these risks materialize, or if our underlying assumptions prove to be incorrect, actual results may vary materially from what we projected. Any forward-looking statements contained in this press release reflect our current views with respect to future events and are subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, growth strategy and liquidity. We have no intention, and disclaim any obligation, to update or revise any forward-looking statements, whether as a result of new information, future results or otherwise.

Amtech Systems, Inc
Bradley C. Anderson
Chief Financial Officer
480-967-5146
or
MKR Group, Inc.
Investor Relations
Todd Kehrli or Jim Byers
323-468-2300
asys@mkr-group.com

Source: Amtech Systems, Inc.