

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

SCHEDULE 13D
Under the Securities Exchange Act of 1934

(Amendment No.) (1)

Amtech Systems, Inc.

(Name of Issuer)

Common Stock, \$.01 par value per share

(Title of Class of Securities)

032332504

(CUSIP Number)

Steven N. Bronson
100 Mill Plain Road
Danbury, Connecticut 06811

with a copy to:

James A. Prestiano, Esq.
631 Commack Road, Suite 2A
Commack, New York 11725
(631) 499-6000

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

April 22, 2005

(Date of Event which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Sections 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box [].

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Section 240.13d-7(b) for other parties to whom copies are to be sent.

(1) The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

(Continued on following pages)

CUSIP No. 437-858-103

SCHEDULE 13D

1 NAME OF REPORTING PERSONS
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

STEVEN N. BRONSON

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) []

(b) []

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED []
PURSUANT TO ITEMS 2(d) OR 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF 7 SOLE VOTING POWER
SHARES 256,250
BENEFICIALLY 8 SHARED VOTING POWER
OWNED BY 0
EACH 9 SOLE DISPOSITIVE POWER
REPORTING 256,250
PERSON 10 SHARED DISPOSITIVE POWER
WITH 0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

256,250

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES []
(See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

8.65%

14 TYPE OF REPORTING PERSON (See Instructions)
PN

CUSIP No. 437-858-103 SCHEDULE 13D

Item 1. Security and Issuer.

This statement relates to the Common Stock, \$.01 par value ("Common Stock") of Amtech Systems, Inc. (the "Issuer"). The Issuer's principal executive office is located at 131 South Clark Drive, Tempe, Arizona, 85281. The Issuer has previously reported that as of May 16, 2005, the Issuer had 2,705,121 shares of Common Stock issued and outstanding.

Item 2. Identity and Background.

(a) This Schedule 13D is filed on behalf of Steven N. Bronson.

(b) Mr. Bronson's business address is 100 Mill Plain Road, Danbury, Connecticut 06811.

(c) Mr. Bronson is the President of Catalyst Financial LLC ("Catalyst"), a broker-dealer registered under the Act. Catalyst's offices are located at 100 Mill Plain Road, Danbury, Connecticut 06811. Mr. Bronson is also the managing member of Catalyst Fund GP, LLC, a Delaware limited liability company, which is the general partner of Catalyst Fund, L.P., a Delaware limited partnership.

(d) During the last five years Mr. Bronson has not been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) Mr. Bronson has not, during the last five years, been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining further violations of, or prohibiting or mandating activities subject to the federal or state securities laws or finding any violation with respect to such laws.

(f) Mr. Bronson is a citizen of the United States of America.

Item 3. Source and Amount of Funds or Other Consideration.

On April 22, 2005, Catalyst acquired a warrant to purchase 60,000 shares of the Issuer's Common Stock at a purchase price of \$4.67 per share (the "Warrant") for services rendered by Catalyst to the Issuer in connection with the Issuer's sale of 540,000 shares of the Issuer's Series A Convertible Preferred Stock (the "Preferred Stock"). Also on April 22, 2005, Catalyst Fund, L.P. purchased an aggregate amount of 196,250 shares of the Preferred Stock at a price of \$4.00

per share in a private transaction for an aggregate cost of \$785,000. The Preferred Stock acquired by Catalyst Fund, L.P. is convertible into 196,250 shares of Issuer's Common Stock.

Item 4. Purpose of Transaction.

Catalyst acquired the Warrant in exchange for services rendered to the Issuer. Catalyst Fund, L.P. purchased the shares of Preferred Stock for investment purposes. Mr. Bronson may, for his own account, Catalyst or the Catalyst Fund, L.P., (i) increase or decrease his beneficial ownership in the securities of the Issuer, (ii) sell all or part of the beneficially owned securities of the Issuer in open market or privately negotiated sales or otherwise, or (iii) make further purchases of the securities of the Issuer through open market or privately negotiated transactions or otherwise.

Other than as described above, Mr. Bronson does not have any plans or proposals which relate or would result in:

(a) The acquisition by any person of additional securities of the Issuer, or the disposition of securities of the Issuer;

(b) An extraordinary corporate transaction, such as a merger, reorganization or liquidation involving the Issuer or any of its subsidiaries;

(c) A sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries;

(d) Any change in the present Board of Directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any vacancies on the Board of Directors of the Issuer;

(e) Any material change in the present capitalization or dividend policy of the Issuer;

(f) Any other material change in the Issuer's business or corporate structure;

(g) Changes in the Issuer's charter, by-laws, or instruments corresponding thereto or any actions which may impede the acquisition or control of the Issuer by any person;

(h) Causing a class of securities of the Issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;

(i) A class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act; or

(j) Any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer.

(a)(b) Mr. Bronson, as the President of Catalyst and the managing member of the Catalyst Fund GP, LLC, which is the general partner of Catalyst Fund, L.P., may be deemed to beneficially own an aggregate of 256,250 shares of the Issuer's Common Stock, representing approximately 8.65% of the total shares of Common Stock issued and outstanding. The securities of the Issuer beneficially owned by Mr. Bronson include the Warrant to purchase 60,000 shares of Common Stock held by Catalyst, and the 196,250 shares of Preferred Stock owned by Catalyst Fund, L.P. Mr. Bronson has sole voting and sole dispositive power with respect to the Common Stock owned by Catalyst and the Catalyst Fund, L.P.

(c) Not applicable.

(d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of such securities of the Issuer.

(e) Not applicable

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

None

Item 7. Material to be Filed as Exhibits.

None

After reasonable inquiry and to the best of my knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Date: May 31, 2005

Steven N. Bronson

/s/ Steven N. Bronson, Member

STEVEN N. BRONSON, Member
Catalyst Fund GP, LLC,
its general partner

Attention. Intentional misstatements or omissions of fact constitute federal criminal violations (See 18 U.S.C. Section 1001).