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

Date of Report (Date of earliest event reported): April 17, 2012

Axcelis Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

000-30941 (Commission File Number) **34-1818596** (IRS Employer Identification No.)

01915

(Zip Code)

108 Cherry Hill Drive, Beverly, Massachusetts

(Address of principal executive offices)

Registrant's telephone number, including area code: (978) 787-4000

(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:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events

On February 9, 2012, the Board of Directors of Axcelis Technologies, Inc. (the "Company") adopted, subject to stockholder approval, the 2012 Equity Incentive Plan ("2012 Equity Plan"). On or about March 26, 2012, the Company made available a proxy statement to its stockholders describing the matters to be voted on at the Annual Meeting to be held on May 2, 2012, including the 2012 Equity Plan (Proposal 2).

The Board of Directors has amended the 2012 Equity Plan to reduce the number of shares of stock available for issuance from 6,000,000 shares to 3,800,000 shares, subject to adjustment as described in the Proxy Statement. Specifically, the first sentence of Section 4(a) of the Plan has been amended to read as follows:

"Subject to adjustment under subsection 4(b), up to an aggregate of 3,800,000 shares of Common Stock may be issued pursuant to Awards, including Incentive Stock Options, under the Plan."

The Company has filed with the Securities and Exchange Commission a Schedule 14A Supplement to the Proxy Statement for the Annual Meeting regarding this amendment to the 2012 Equity Plan. There is no change in the time or place of the Annual Meeting or the record date to determine stockholders entitled to notice of and to vote at the Annual Meeting. Except as described above, the 2012 Equity Plan and the description thereof contained in the Proxy Statement remain unchanged. The Board of Directors continues to recommend unanimously that the stockholders vote FOR the proposals listed in the Proxy Statement, as supplemented. Stockholders do not have to take any action if they have previously voted shares on the Annual Meeting proposals and do not wish to change their vote on any proposal. Stockholders wishing to change their prior votes should consult the Supplement.

SIGNATURE

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.

Axcelis Technologies, Inc.

By: /s/ JAY ZAGER

Jay Zager Executive Vice President and Chief Financial Officer