

**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): **September 16, 2013**

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.)

108 Cherry Hill Drive, Beverly, Massachusetts
(Address of principal executive offices)

01915
(Zip Code)

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:

- Written communications pursuant to Rule 425 under the 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 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

Appointment of Chief Financial Officer

Effective September 16, 2013, the Board of Directors of Axcelis Technologies, Inc. modified the title of Kevin J. Brewer, previously serving as Executive Vice President, Global Operations and Interim Chief Financial Officer. Beginning on that date, Mr. Brewer will have the title of Executive Vice President and Chief Financial Officer.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

99.1 Press Release dated September 16, 2013. Filed herewith.

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.

Date: September 17, 2013

Axcelis Technologies, Inc.

By: /s/ LYNNETTE C. FALLON

Lynnette C. Fallon,
Executive Vice President HR/Legal and General Counsel



**AXCELIS ANNOUNCES APPOINTMENT OF KEVIN BREWER AS
CHIEF FINANCIAL OFFICER**

BEVERLY, Mass., September 16, 2013 — Axcelis Technologies, Inc. (Nasdaq: ACLS), a leading supplier of enabling ion implantation solutions for the semiconductor industry, today announced the appointment of Kevin J. Brewer as executive vice president and chief financial officer. Mr. Brewer, who has served as the company's interim CFO since July, will continue to report directly to Chairman and CEO Mary G. Puma.

"We're pleased to have Kevin as our CFO going forward," said Puma. "The CFO transition has gone extremely well. After a careful evaluation, the board concluded that his continuation in the CFO role would best serve Axcelis shareholders. The breadth and depth of Kevin's experience, and his intimate knowledge of the implant business and Axcelis operations, makes him the ideal candidate to manage our financial organization and execute the next phase of our strategic objectives."

Brewer commented, "Axcelis' goal is to drive profitability and generate cash through the cycle by growing revenues, managing spending and increasing gross margins. I am pleased to be continuing in the CFO role on the cusp of Axcelis' success."

About Axcelis:

Axcelis (Nasdaq: ACLS), headquartered in Beverly, Mass., has been providing innovative, high-productivity solutions for the semiconductor industry for over 35 years. Axcelis is dedicated to developing enabling process applications through the design, manufacture and complete life cycle support of ion implantation systems, one of the most critical and enabling steps in the IC manufacturing process. The Company's Internet address is: www.axcelis.com.

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