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): August 3, 2011

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 2.02 Results of Operations and Financial Condition

On August 4, 2011, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the three and six months ended June 30, 2011. The Company's press release is attached as Exhibit 99.2 to this Current Report on Form 8-K and incorporated by reference herein.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

Election of Director. On August 3, 2011, the Board of Directors elected Joseph P. Keithley, as a director of Axcelis Technologies, Inc. (the "Company") for a term ending at the 2012 Annual Meeting of Stockholders. Mr. Keithley has been appointed to the Audit Committee of the Board of Directors. The Company's press release regarding Mr. Keithley's election is attached as Exhibit 99.1 to this Current Report on Form 8-K.

Mr. Keithley will participate in the Company's non-employee director compensation arrangements, a description of which appears under the heading "Director Compensation" in the proxy statement for the Company's 2011 annual meeting of stockholders and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits	
Exhibit No.	Description
99.1	Press Release dated August 3, 2011. Filed herewith.
99.2	Press Release dated August 4, 2011. Filed herewith.
99.2	Press Release dated August 4, 2011. 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: August 4, 2011

Axcelis Technologies, Inc.

By: /s/ JAY ZAGER

Jay Zager Executive Vice President and Chief Financial Officer



AXCELIS APPOINTS JOSEPH KEITHLEY TO BOARD OF DIRECTORS

BEVERLY, Mass., August 3, 2011 — Axcelis Technologies, Inc. (Nasdaq: ACLS), a leading supplier of innovative, high-productivity solutions for the semiconductor industry, announced today that Joseph P. Keithley has joined the company's board of directors.

"I am delighted to welcome Joe Keithley to our board of directors," said Mary G. Puma, chairman and CEO of Axcelis Technologies. "We're fortunate to have such a strong business leader join the organization. Joe brings both tremendous experience and great strategic management insight to the team. We look forward to benefiting from this knowledge as the company continues to execute on its strategy of technology leadership and market share growth."

Keithley has over three decades of experience in high technology markets. Most recently, Keithley was chairman of the board, chief executive officer and president of Keithley Instruments, a supplier of test and measurement systems for the electronics, wireless and semiconductor industries, until the company's sale last year. Since he joined Keithley Instruments in 1976, he held several executive and management positions with the company. In addition to Axcelis Technologies, Keithley is on the board of directors of Materion Corporation and holds the position of chairman of the board at Nordson Corporation.

Axcelis Technologies, Inc. (Nasdaq: ACLS) headquartered in Beverly, Massachusetts, provides innovative, high-productivity solutions for the semiconductor industry. Axcelis is dedicated to developing enabling process applications through the design, manufacture and complete life cycle support of ion implantation and cleaning systems. The company's Internet address is: www.axcelis.com.

Company Contacts:

Maureen Hart (editorial/media) 978.787.4266 Maureen.hart@axcelis.com

Jay Zager (financial community) 978.787.9408 jay.zager@axcelis.com

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AXCELIS DELIVERS STRONG SECOND QUARTER 2011 RESULTS, EXCEEDING GUIDANCE

BEVERLY, Mass — August 4, 2011 — Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the second quarter ended June 30, 2011. Revenue for the second quarter was \$93.4 million, compared with \$93.2 million in Q1, and \$58.2 million for the same period a year ago. Net income for the quarter was \$4.2 million, or \$0.04 per diluted share. Prior quarter net income was \$1.8 million or \$0.02 per diluted share, and in the prior year period, the company reported a net loss of \$4.5 million or \$0.04 cents per share. Cash and cash equivalents were \$37.9 million on June 30, 2011.

Commenting on the Company's performance, Chairman and CEO Mary Puma said, "Axcelis had a very strong second quarter. Revenues and EPS exceeded the high end of guidance, and our gross margin improved significantly. Although the economic climate was not as robust as in the prior quarter, customers continue to recognize the strength of our product offerings and we were able to achieve improved financial performance. While the industry outlook for the second half of the year remains somewhat uncertain, we expect our penetration of key accounts to continue due to the competitiveness of our products."

Second Quarter 2011 Conference Call

The Company will host a conference call today at 5:00 pm ET to discuss the second quarter of 2011. The call will be available to interested listeners via an audio webcast that can be accessed through Axcelis' home page at www.axcelis.com, or by dialing 1-888-679-8018 (1-617-213-4845 outside North America). Participants calling into the conference call will be requested to provide the company name, Axcelis Technologies and pass code: 41102197. Webcast replays will be available from 8 pm ET on August 4, 2011 until 11:59 pm on September 3, 2011.

Safe Harbor Statement

This document contains forward-looking statements under the SEC safe harbor provisions. These statements, which include our guidance for future financial performance, are based on management's current expectations and should be viewed with caution. They are subject to various risks and uncertainties, many of which are outside the control of the Company, including the timing of orders and shipments, the conversion of orders to revenue in any particular quarter, or at all, our ability to implement successfully our profit plans, the continuing demand for semiconductor equipment, relative market growth, continuity of business relationships with and purchases by major customers, competitive pressure on sales and pricing, increases in material and other production costs that cannot be recouped in product pricing and global economic, political and financial conditions. These risks and other risk factors relating to Axcelis are described more fully in the most recent Form 10-K filed by Axcelis and in other documents filed from time to time with the Securities and Exchange Commission.

About Axcelis

Axcelis Technologies, Inc. (Nasdaq: ACLS) headquartered in Beverly, Massachusetts, provides innovative, high-productivity

solutions for the semiconductor industry. Axcelis is dedicated to developing enabling process applications through the design, manufacture and complete life cycle support of ion implantation and cleaning systems. The company's Internet address is: www.axcelis.com.

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Axcelis Technologies, Inc. Consolidated Statements of Operations (In thousands, except per share amounts) (Unaudited)

	Three months ended June 30,			Six months ended June 30,				
	 2011		2010		2011		2010	
Revenue								
Product	\$ 84,334	\$	50,693	\$	170,937	\$	90,971	
Service	9,046		7,510		15,613		15,732	
	 93,380		58,203	_	186,550		106,703	
Cost of revenue								
Product	52,905		33,690		109,778		64,010	
Service	6,337		4,645		11,553		9,818	
	 59,242		38,335		121,331		73,828	
Gross profit	34,138		19,868		65,219		32,875	
Operating expenses								
Research and development	11,829		9,477		23,647		18,610	
Sales and marketing	7,675		6,606		15,494		13,210	

General and administrative		8,416	7,464	17,471		15,164
		27,920	 23,547	 56,612		46,984
Income (loss) from operations		6,218	(3,679)	8,607		(14,109)
Other income (expense)						
Interest income		11	25	17		54
Other, net		(1,158)	342	(1,608)		(65)
Other, net			 367	 		
	. <u> </u>	(1,147)	 307	 (1,591)		(11)
Income (loss) before income taxes		5,071	(3,312)	7,016		(14,120)
		5,071	(0,012)	7,010		(1,,1=0)
Income taxes		844	1,217	977		1,510
Net income (loss)	\$	4,227	\$ (4,529)	\$ 6,039	\$	(15,630)
Net income (loss) per share						
Basic	\$	0.04	\$ (0.04)	\$ 0.06	\$	(0.15)
Diluted	\$	0.04	\$ (0.04)	\$ 0.06	\$	(0.15)
		<u> </u>		 		
Shares used in computing basic and diluted net income (loss) per share						
Basic weighted average common shares		106,097	104,170	106,017		104,143
Diluted weighted average common shares		108,911	 104,170	 109,723	_	104,143

Axcelis Technologies, Inc. Consolidated Balance Sheets (In thousands) (Unaudited)

	June 30, 2011		December 31, 2010	
ASSETS				
Current assets				
Cash and cash equivalents	\$	37,857	\$	45,743
Accounts receivable, net		57,969		57,888
Inventories, net		124,273		109,653
Prepaid expenses and other current assets		11,177		15,346
Total current assets		231,276		228,630
Property, plant and equipment, net		38,106		38,594
Long-term restricted cash		116		107
Other assets		17,914		13,541
	\$	287,412	\$	280,872
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities				
Accounts payable	\$	30,904	\$	36,709
Accrued compensation		11,399		10,597
Warranty		4,131		2,556
Income taxes		650		
Deferred revenue		10,933		13,859
Other current liabilities		4,518		4,408
Total current liabilities		62,535		68,129
Long-term deferred revenue		2,374		2,417
Other long-term liabilities		5,317		4,759
Commitments and contingencies				
Stockholders' equity				
Preferred stock		_		
Common stock		106		106
Additional paid-in capital		496,583		493,967
Treasury stock		(1,218)		(1,218)
Accumulated deficit		(287,481)		(293,520)
Accumulated other comprehensive income		9,196		6,232
		217,186		205,567
	\$	287,412	\$	280,872

Consolidated Statements of Cash Flow (In thousands) (Unaudited)

		Six months ended June 30,		
		2011		2010
Cash flows from operating activities:	<u>^</u>	6		
Net income (loss)	\$	6,039	\$	(15,630)
Adjustments to reconcile net income (loss) to net cash used for operating activities:				
Depreciation and amortization		4,009		3,711
Taxes		16		,
Stock-based compensation expense		2,124		1,568
Provision for excess inventory		536		1,331
Changes in operating assets & liabilities:				
Accounts receivable		571		(16,011)
Inventories		(13,894)		13,844
Prepaid expenses and other current assets		4,442		(5,051)
Accounts payable & other current liabilities		(3,618)		11,502
Deferred revenue		(2,989)		5,366
Income taxes		629		(110)
Other assets and liabilities		(5,920)		1,673
Net cash provided by (used for) operating activities		(8,055)		2,193
Cash flows from investing activities:				
Expenditures for property, plant, and equipment		(1,231)		(480)
(Increase) decrease in restricted cash		(9)		3,116
Net cash provided by (used for) investing activities		(1,240)		2,636
Cash flows from financing activities:				
Financing fees and other expenses		(194)		(514)
Proceeds from exercise of stock options		239		55
Proceeds from Employee Stock Purchase Plan		275		206
Net cash provided by (used for) financing activities		320		(253)
Effect of exchange rate changes on cash		1,089		(1,710)
Net increase (decrease) in cash and cash equivalents		(7,886)		2,866
Cash and cash equivalents at beginning of period		45,743		45,020
Cash and cash equivalents at end of period	\$	37,857	\$	47,886