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 2, 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.)

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)
- o 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 2.02 Results of Operations and Financial Condition

On August 2, 2012, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended June 30, 2012. The Company's press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

99.1

Exhibit No. Description

Press Release dated August 2, 2012. Filed herewith.

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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 2, 2012 Axcelis Technologies, Inc.

By: /s/ JAY ZAGER

Jay Zager

Executive Vice President and Chief Financial Officer



AXCELIS ANNOUNCES FINANCIAL RESULTS FOR SECOND QUARTER 2012

BEVERLY, Mass. — August 2, 2012—Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the quarter ended June 30, 2012. The Company reported second quarter revenue of \$59.1 million, compared to \$55.0 million for the first quarter of 2012. Net loss for the quarter was \$471 thousand, or \$0.00 per diluted share, which includes a \$153 thousand or \$0.00 per share restructuring charge. This compares to a net loss for the first quarter of 2012 of \$10.0 million, or \$0.09 per share, which includes a \$2.9 million, or \$0.03 per share restructuring charge. Cash and cash equivalents were \$33.8 million at June 30, 2012.

Commenting on the Company's performance, Chairman and CEO Mary Puma said, "Despite an industry slowdown during the quarter, we were able to deliver breakeven profitability with a slight miss in revenue guidance. We have taken further steps to reduce our expenses and lower our quarterly breakeven revenue, while continuing to invest in future growth."

Second Quarter 2012 Conference Call

The Company will host a conference call today at 5:00 pm ET to discuss results for the second quarter of 2012. An audio webcast will be available on the Investor page of Axcelis' website at www.axcelis.com, or by dialing 1.888.713.4211 (1.617.213.4864 outside North America). Participants calling into the conference call will be requested to provide the company name, Axcelis Technologies, and pass code: 90932672. A replay of the webcast will be available for 30 days following the conference call.

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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.

Company Contacts

Financial Community: Jay Zager 978.787.9408

Editorial/Media Community: Maureen Hart 978.787.4266

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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,			d	
	 2012		2011		2012		2011	
Revenue								
Product	\$ 51,465	\$	84,334	\$	99,003	\$	170,937	
Services	7,649		9,046		15,117		15,613	
Total revenue	59,114		93,380		114,120	-	186,550	
Cost of revenue								
Product	30,599		52,905		59,883		109,778	
Services	5,727		6,337		10,913		11,553	
Total cost of revenue	36,326		59,242		70,796		121,331	

Gross profit	22,788	34,138	43,324	65,219
Operating expenses				
Research and development	10,478	11,829	22,147	23,647
Sales and marketing	6,231	7,675	12,814	15,494
General and administrative	6,488	8,416	14,287	17,471
Restructuring charges	153	_	3,034	_
Total operating expense	23,350	27,920	52,282	56,612
Income (loss) from operations	(562)	6,218	(8,958)	8,607
Other income (expense)				
Interest income	9	11	18	17
Other-net	551	(1,158)	(373)	(1,608)
Total other income (expense)	560	(1,147)	(355)	(1,591)
Income (loss) before income taxes	(2)	5,071	(9,313)	7,016
Income taxes	 469	 844	 1,186	 977
Net income (loss)	\$ (471)	\$ 4,227	\$ (10,499)	\$ 6,039
Net income (loss) per share				
Basic and diluted net income (loss) per share	\$ (0.00)	\$ 0.04	\$ (0.10)	\$ 0.06
Shares used in computing basic and diluted net income (loss) per share				
Basic weighted average common shares	 107,639	106,097	107,353	106,017
Diluted weighted average common shares	107,639	108,911	107,353	109,723
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Axcelis Technologies, Inc. Consolidated Statements of Comprehensive Income (In thousands) (Unaudited)

	Three months ended June 30,			Six months ended June 30,				
		2012		2011		2012		2011
Net income (loss)	\$	(471)	\$	4,227	\$	(10,499)	\$	6,039
Other comprehensive income:								
Foreign currency translation adjustments		(1,469)		1,639		(1,413)		2,964
Comprehensive income (loss)	\$	(1,940)	\$	5,866	\$	(11,912)	\$	9,003

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

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		June 30, 2012		ecember 31, 2011
ASSETS				
Current assets				
Cash and cash equivalents	\$	33,797	\$	46,877
Accounts receivable, net		34,978		35,071
Inventories, net		126,647		120,023
Prepaid expenses and other current assets		10,203		10,062
Total current assets		205,625		212,033
Property, plant and equipment, net		35,779		37,204
Long-term restricted cash		101		104
Other assets		11,515		19,904
Total assets	\$	253,020	\$	269,245
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LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities

Accounts payable	\$ 17,642	\$ 19,551
Accrued compensation	7,916	8,285
Warranty	2,589	3,556
Income taxes	210	495
Deferred revenue	8,398	10,786
Other current liabilities	4,070	4,799
Total current liabilities	40,825	 47,472
Long-term deferred revenue	761	1,488
Other long-term liabilities	5,771	5,730
Total liabilities	47,357	54,690
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Stockholders' equity		
Preferred stock	_	_
Common stock	108	107
Additional paid-in capital	502,351	499,332
Treasury stock	(1,218)	(1,218)
Accumulated deficit	(298,942)	(288,443)
Accumulated other comprehensive income	3,364	4,777
Total stockholders' equity	 205,663	214,555
Total liabilities and stockholders' equity	\$ 253,020	\$ 269,245

Axcelis Technologies, Inc. Consolidated Statements of Cash Flows

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(In thousands) (Unaudited)

	Six months ended Jun 30.		
	 2012	50,	2011
Cash flows from operating activities:			
Net income (loss)	\$ (10,499)	\$	6,039
Adjustments to reconcile net income (loss) to net cash used for operating activities:			
Depreciation and amortization	3,625		4,009
Deferred taxes	995		16
Stock-based compensation expense	2,010		2,124
Provision for excess inventory	406		536
Changes in operating assets and liabilities:			
Accounts receivable	16		571
Inventories	(7,213)		(13,894)
Prepaid expenses and other current assets	(808)		4,442
Accounts payable and other current liabilities	(3,928)		(3,618)
Deferred revenue	(3,109)		(2,989)
Income taxes	(286)		629
Other assets and liabilities	6,226		(5,920)
Net cash used for operating activities	 (12,565)		(8,055)
Cash flows from investing activities:			
Expenditures for property, plant and equipment	(385)		(1,231)
(Increase) decrease in restricted cash	3		(9)
Net cash used for investing activities	(382)		(1,240)
Cash flows from financing activities:			
Financing fees and other expenses	_		(194)
Proceeds from the exercise of stock options	847		239
Proceeds from Employee Stock Purchase Plan	179		275
Net cash provided by financing activities	1,026		320
Effect of exchange rate changes on cash	(1,159)		1,089
Net decrease in cash and cash equivalents	(13,080)		(7,886)
Cash and cash equivalents at beginning of period	46,877		45,743
Cash and cash equivalents at end of period	\$ 33,797	\$	37,857