

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

SCHEDULE 13G  
UNDER THE SECURITIES EXCHANGE ACT OF 1934  
(AMENDMENT NO. 2)\*

Axcelis Technologies Inc.

-----  
(Name of Issuer)

Common

-----  
(Title of Class of Securities)

054540109

-----  
(CUSIP Number)

December 31, 2007

-----  
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\*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 the disclosures provided in a prior cover page.

The information required in 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).

PAGE 1 OF 4 PAGES

-----  
1 NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Tradewinds Global Investors, LLC

02-0767178

-----  
2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a)   
(b)

N/A

-----  
3 SEC USE ONLY

-----  
4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware - U.S.A.

-----  
5 SOLE VOTING POWER

8,231,801

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY  
EACH

-----  
6 SHARED VOTING POWER

0

REPORTING  
PERSON  
WITH

-----  
7 SOLE DISPOSITIVE POWER

9,247,196

-----  
8 SHARED DISPOSITIVE POWER

0  
-----

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9,247,196

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*

N/A

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

9.04%

12 TYPE OF REPORTING PERSON\*

IA

- Item 1(a) Name of Issuer:  
Axcelis Technologies Inc.
- Item 1(b) Address of Issuer's Principal Executive Offices:  
108 Cherry Hill Drive  
Beverly, MA 01915  
United States
- Item 2(a) Name of Person Filing:  
Tradewinds Global Investors, LLC
- Item 2(b) Address of the Principal Office or, if none, Residence:  
2049 Century Park East, 20th Floor  
Los Angeles, CA 90067
- Item 2(c) Citizenship:  
Delaware - U.S.A.
- Item 2(d) Title of Class of Securities:  
Common
- Item 2(e) CUSIP Number:  
054540109
- Item 3 If the Statement is being filed pursuant to Rule 13d-1(b), or 13d-2(b), check whether the person filing is a:
- (e)  An investment advisor in accordance with section 240.13d-1(b)(1)(ii)(E)
- Item 4 Ownership:
- (a) Amount Beneficially Owned:  
9,247,196
- (b) Percent of Class:  
9.04%
- (c) Number of shares as to which such person has:
- (i) sole power to vote or direct the vote:  
8,231,801
- (ii) shared power to vote or direct the vote:  
0
- (iii) sole power to dispose or to direct the disposition of:  
9,247,196
- (iv) shared power to dispose or to direct the disposition of:  
0
- Item 5 Ownership of Five Percent or Less of a Class:  
Not applicable.

Item 6 Ownership of More than Five Percent on Behalf of Another Person:

Securities reported on this Schedule 13G are beneficially owned by clients which may include investment companies registered under the Investment Company Act and/or employee benefit plans, pension funds, endowment funds or other institutional clients.

Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company:

Not applicable.

Item 8 Identification and Classification of Members of the Group:

Not applicable.

Item 9 Notice of Dissolution of a Group:

Not applicable.

Item 10 Certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purpose or effect.

SIGNATURE

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

Dated: February 14, 2008

Tradewinds Global Investors, LLC

By: /S/ David B. Iben

-----  
Name: David B. Iben, CFA

Title: Chief Investment Officer