

ENZO BIOCHEM INC  
Form 4  
December 20, 2007

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
THALENFELD BARBARA E

(Last) (First) (Middle)

C/O ENZO BIOCHEM, INC., 527  
MADISON AVENUE

(Street)

NEW YORK, NY 10022

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
ENZO BIOCHEM INC [ENZ]

3. Date of Earliest Transaction  
(Month/Day/Year)  
12/18/2007

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

\_\_\_ Director \_\_\_ 10% Owner  
\_X\_ Officer (give title below) \_\_\_ Other (specify below)

VP, Corporate Development

6. Individual or Joint/Group Filing(Check Applicable Line)

\_X\_ Form filed by One Reporting Person  
\_\_\_ Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

| 1. Title of Security (Instr. 3)          | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|--|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
| Common Stock, par value \$0.01 per share | 12/18/2007                           |  | C                              | 1,118<br>(1)  | A (1) 55,550 (2)  | D  |                                   |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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(9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|
| Employee Stock Option                      | \$ 10.97   | 12/18/2007                           |  | C                              | 6,381   | 12/18/1997 12/18/2007                                    | Common Stock, par value \$0.01 per share 6,381                |

## Reporting Owners

| Reporting Owner Name / Address   | Relationships |           |                           |       |
|--|---------------|-----------|---------------------------|-------|
|  | Director      | 10% Owner | Officer                   | Other |
| THALENFELD BARBARA E<br>C/O ENZO BIOCHEM, INC.<br>527 MADISON AVENUE<br>NEW YORK, NY 10022 |               |           | VP, Corporate Development |       |

## Signatures

/s/ Barbara Thalenfeld  
12/20/2007  
\*\*Signature of Reporting Person Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
  - \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- The Reporting Person exercised a stock option to purchase 6,381 shares of Common Stock and paid the exercise price thereof by the
- (1) surrender of 5,263 shares of Common Stock, for a net gain in outstanding shares of Common Stock of 1,118 shares. The stated exercise price of the stock option was \$10.97.
  - (2) As of the date hereof, the Reporting Person directly beneficially owned 9,901 shares of Common Stock, 1,020 shares of Common Stock in Enzo Biochem's 401(K) Plan and 49,887 options to purchase Common Stock, par value \$0.01 per share, which are currently exercisable.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.