

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 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person * RABBANI SHAHRAM K		2. Issuer Name and Ticker or Trading Symbol ENZO BIOCHEM INC [ENZ]		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) Treasurer, Secretary	
(Last) (First) (Middle) C/O ENZO BIOCHEM, INC., 527 MADISON AVENUE		3. Date of Earliest Transaction (Month/Day/Year) 07/01/2009			
(Street) NEW YORK, NY 10022		4. If Amendment, Date Original Filed(Month/Day/Year)		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person	
(City) (State) (Zip)					

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 Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock, par value \$0.01	07/01/2009		J	(1)(2)	82,645	A	(1) (2)	1,539,392 (3)	D	

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

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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)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
						Date Exercisable	Expiration Date					

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
RABBANI SHAHRAM K C/O ENZO BIOCHEM, INC. 527 MADISON AVENUE NEW YORK, NY 10022	X		Treasurer, Secretary	

Signatures

/s/ Shahram K. Rabbani	07/06/2009
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).

(1) On July 18, 2008, the Reporting Person exchanged 82,645 shares of common stock of the Issuer (the "Shares") in connection with the acquisition of certain real estate from a third-party. At such time, pursuant to a loan agreement dated July 18, 2008 (the "Loan Agreement") by and between the Reporting Person and such third-party (the "Borrower"), the Reporting Person loaned the Borrower \$500,000, which was evidenced by a promissory note dated July 18, 2008 (the "Promissory Note") and secured by a pledge of the Shares pursuant to a stock pledge agreement dated July 18, 2008 (the "Pledge Agreement") by and between the Reporting Person, as pledge agent, the Borrower, and certain other parties named therein (the "Transaction"). Under the terms of the Transaction, the Shares were held in escrow by the Reporting Person, as pledge agent, and, upon a default under the terms of (CONTINUED IN FOOTNOTE 2)

(2) the Loan Agreement, the Reporting Person would be entitled, as pledge agent, to foreclose on the Shares under the Pledge Agreement. The Pledge Agreement provides that upon such foreclosure, the Reporting Person, as pledge agent, has the right to have the Shares transferred to him and registered in his name or in the name of his nominee. The Transaction was reported by the Reporting Person on a Form 4 filed with the Securities and Exchange Commission on July 22, 2008. On January 20, 2009, a notice of default was sent to the Borrower and the Reporting Person subsequently foreclosed on the Shares. On July 1, 2009, the Reporting Person exercised his right, as pledge agent, under the Pledge Agreement to have the Shares transferred to him and registered in his name, and the Shares were so transferred on such date. Accordingly, this Form 4 is being filed to report such transfer from the Borrower to the Reporting Person.

(3) Includes: (i) 1,671 shares of Common Stock that the Reporting Person holds as custodian for certain of his nephews; (ii) 1,354 shares of Common Stock held in the name of the Reporting Person's son and (iii) 7,995 shares of Common Stock held in the Company's 401(k) plan.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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