

IONATRON, INC.
Form 4
January 31, 2007

FORM 4

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

OMB APPROVAL

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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 *
MCCAHERN STEPHEN WILLIAM

(Last) (First) (Middle)

IONATRON, INC., 3716 E.
COLUMBIA STREET - SUITE 120

(Street)

TUCSON, AZ 85714

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
IONATRON, INC. [IOTN]

3. Date of Earliest Transaction (Month/Day/Year)
01/29/2007

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

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
Executive VP Engineering

6. Individual or Joint/Group Filing(Check Applicable Line)
 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)
				(A) or (D)	Price		
Common Stock	01/29/2007		S(1)	3,360 D	\$ 5.2901	5,947,608	D
Common Stock	01/30/2007		S(1)	56,640 D	\$ 5.2111	5,890,968	D
Common Stock	01/30/2007		S(1)	12,000 D	\$ 5.2001	5,878,968	D

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

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