

IONATRON, INC.  
Form 8-K  
February 16, 2007

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 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) February 14, 2007

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IONATRON, INC.

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(Exact Name of Registrant as Specified in Its Charter)

Delaware

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(State or Other Jurisdiction of Incorporation)

001-14015  
(Commission File Number)

77-0262908  
(IRS Employer Identification No.)

3716 East Columbia, Suite 120, Tucson, Arizona  
(Address of Principal Executive Offices)

85714  
(Zip Code)

(520) 628-7415

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(Registrant's Telephone Number, Including Area Code)

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(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 (*see* General Instruction A.2. below):

- 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)
- 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 5.02. Departure of Directors or Principal Officers; Election of Directors; Appointment of Principal Officers;  
Compensatory Arrangements of Certain Officers.**

On February 14, 2007, Thomas Dearmin notified Ionatron, Inc. that he is resigning as its Vice Chairman effective as of February 18, 2007. Mr. Dearmin will continue to serve as a director of Ionatron, Inc.

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SIGNATURES

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 thereunto duly authorized.

IONATRON, INC.  
(Registrant)

Date: February 14, 2007

By: /s/ Kenneth Wallace

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Kenneth Wallace  
Chief Operating Officer and Chief Financial Officer