

As filed with the Securities and Exchange Commission on June 25, 2004  
Registration No. 333-34909-01

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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FORM S-3  
POST-EFFECTIVE AMENDMENT NO. 1  
To  
Registration Statement  
Under  
The Securities Act of 1933

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THERMO ELECTRON CORPORATION  
(Exact name of registrant as specified in its charter)

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Delaware  
(State or other jurisdiction of  
incorporation or organization)

04-2209186  
(I.R.S. Employer  
Identification Number)

81 Wyman Street  
Waltham, Massachusetts 02454-9046  
(Address, including zip code, and telephone number, including area code,  
of registrant's principal executive offices)

Seth H. Hoogasian, Secretary  
Thermo Electron Corporation  
81 Wyman Street  
P. O. Box 9046  
Waltham, Massachusetts 02454-9046  
(Name, address, including zip code, and telephone number,  
including area code, of agent for service)

(781) 622-1000

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Approximate date of commencement of proposed sale to public: \_\_\_\_\_

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If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. [  ]

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [  ]

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [  ]

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If this form is post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [  ] \_\_\_\_\_

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [  ]

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This Post-Effective Amendment No. 1 on Form S-3 to the Registration Statement on Form S-3 (Reg. No. 333-34909-01) is being filed by the Registrant to remove from registration any of the securities that remain unsold thereunder as of the date of the filing of this post-effective amendment. The Registrant is doing so because the issuance of shares of Common Stock upon any conversion of the debentures registered under this Registration Statement will be exempt from registration under Section 3(a)(9) of the Securities Act of 1933, as amended. As such, the Registrant hereby removes such securities from registration and the registration is hereby terminated.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Thermo Electron Corporation has duly caused this Post-Effective Amendment on Form S-3 to the Registration Statement on Form S-3 (Reg. No. 333-34909-01) to be signed on its behalf by the undersigned, thereunto duly authorized, in Waltham, Massachusetts, on this 25th day of June, 2004.

THERMO ELECTRON CORPORATION

By: /s/ Marijn E. Dekkers  
Marijn E. Dekkers  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment on Form S-3 to the Registration Statement on Form S-3 (Reg. No. 333-34909-01) has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title(s)</u>	<u>Date</u>
<u>/s/ Marijn E. Dekkers</u> Marijn E. Dekkers	President, Chief Executive Officer, and Director (Principal Executive Officer)	June 25, 2004
<u>/s/ Theo Melas-Kyriazi</u> Theo Melas-Kyriazi	Vice President, and Chief Financial Officer (Principal Financial Officer)	June 25, 2004
<u>/s/ Peter E. Hornstra</u> Peter E. Hornstra	Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	June 25, 2004
<u>/s/ Jim P. Manzi</u> Jim P. Manzi	Chairman of the Board and Director	June 25, 2004
<u>/s/ John L. LaMattina</u> John L. LaMattina	Director	June 25, 2004
<u>/s/ Peter J. Manning</u> Peter J. Manning	Director	June 25, 2004

/s/ Robert A. McCabe Director June 25, 2004  
Robert A. McCabe

/s/ Robert W. O'Leary Director June 25, 2004  
Robert W. O'Leary

/s/ Michael E. Porter Director June 25, 2004  
Michael E. Porter

/s/ Elaine S. Ullian Director June 25, 2004  
Elaine S. Ullian

