

As filed with the Securities and Exchange Commission on June 25, 2004
Registration No. 333-01277

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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

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

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

Approximate date of commencement of proposed sale to public: _____

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. []

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. []

This Post-Effective Amendment No. 1 on Form S-3 to the Registration Statement on Form S-3 (Reg. No. 333-01277) 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 was obligated to maintain the effectiveness of such registration statement until all the securities offered thereby were eligible for resale pursuant to Rule 144(k) under the Securities Act of 1933, as amended. The securities covered thereby are eligible for resale pursuant to Rule 144(k). As such, the Registrant hereby removes any remaining unsold 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. 333-01277) 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. 333-01277) 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