

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G  
(Rule 13d-102)  
Information statement pursuant to Rules 13d-1 and 13d-2

Under the Securities Exchange Act of 1934  
(Amendment No.)

Cabot Microelectronics Corp.  
(Name of Issuer)

Common Stock  
(Title of Class of Securities)

12709P103  
(CUSIP Number)

Date of Event Which Requires Filing of this Statement: December 31, 2004

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 12709P103 13G  
1 NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
Royce & Associates, LLC 52-2343049  
2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  
(a)   
(b)  
3 SEC USE ONLY  
4 CITIZENSHIP OR PLACE OF ORGANIZATION  
New York  
NUMBER OF 5 SOLE VOTING POWER  
SHARES 1,661,000  
BENEFICIALLY 6 SHARED VOTING POWER  
OWNED BY  
EACH 7 SOLE DISPOSITIVE POWER  
REPORTING 1,661,000  
PERSON 8 SHARED DISPOSITIVE POWER  
WITH  
9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING  
PERSON 1,661,000  
10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES   
11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  
6.74%  
12 TYPE OF REPORTING PERSON  
IA

CUSIP No. 12709P103 13G  
Item 1(a) Name of Issuer:  
Cabot Microelectronics Corp.

Item 1(b) Address of Issuer's Principal Executive Offices:  
Investor Relations  
870 N. Commons Drive  
Aurora, IL 60504

Item 2(a) Name of Persons Filing:  
Royce & Associates, LLC

Item 2(b) Address of Principal Business Office, or, if None, Residence:  
1414 Avenue of the Americas, New York, NY 10019

Item 2(c) Citizenship:  
New York Corporation

Item 2(d) Title of Class of Securities:

Common Stock  
Item 2(e) CUSIP Number:  
12709P103

- Item 3 If this statement is filed pursuant to rules 13d-1(b), or 13d-2(b), check whether the person filing is a:
- (a)  Broker or Dealer registered under Section 15 of the Act
  - (b)  Bank as defined in Section 3(a)(6) of the Act
  - (c)  Insurance Company as defined in Section 3(a)(19) of the Act
  - (d)  Investment Company registered under Section 8 of the Investment Company Act
  - (e)  Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940
  - (f)  Employee Benefit Plan, Pension Fund which is subject to the provisions of the Employee Retirement Income Security Act of 1974 or Endowment Fund
  - (g)  Parent Holding Company, in accordance with Rule 13d-1 (b) (ii) (G)
  - (h)  Group
- CUSIP No. 12709P103 13G

- Item 4 Ownership
- (a) Amount Beneficially Owned:  
1,661,000
  - (b) Percent of Class:  
6.74%
  - (c) Number of shares as to which such person has:
    - (i) sole power to vote or to direct the vote  
1,661,000
    - (ii) shared power to vote or to direct the vote
    - (iii) sole power to dispose or to direct the disposition  
of 1,661,000
    - (iv) shared power to dispose or to direct the  
disposition of

- Item 5 Ownership of Five Percent or Less of a Class.
- Item 6 Ownership of More than Five Percent on Behalf of Another Person .  
NOT APPLICABLE
- Item 7 Identification and Classification of the Subsidiary Which Acquired  
The Security Being Reported on by the Parent Holding  
Company.  
NOT APPLICABLE
- Item 8 Identification and Classification of Members of the Group.  
NOT APPLICABLE
- Item 9 Notice of Dissolution of Group.  
NOT APPLICABLE

CUSIP No. 12709P103 13G  
Item 10 Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement with respect to it is true, complete and correct.

Date: January 21, 2005

By: Daniel A. O'Byrne, Vice President

