

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 9) *

KLA -Tencor Corporation
(Name of Issuer)

Common Stock
(Title of Class of Securities)

482480100
(CUSIP Number)

December 31, 2007
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

*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).

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1 NAMES OF REPORTING PERSONS
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)
Capital Research and Management Company

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a)

3 SEC USE ONLY (b)

4 CITIZENSHIP OR PLACE OF ORGANIZATION
Delaware

5 SOLE VOTING POWER

NONE

6 SHARED VOTING POWER
NUMBER OF
SHARES NONE
BENEFICIAL
LY OWNED BY
7 SOLE DISPOSITIVE POWER
EACH
REPORTING NONE
PERSON
WITH:
8 SHARED DISPOSITIVE POWER
NONE

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

NONE PLEASE NOTE: Capital Research and Management Company (CRMC) manages assets subject to reporting on Schedule 13G through two investment divisions, Capital Research Global Investors (CRGI) and Capital World Investors (CWI). CRGI and CWI make independent investment and proxy voting decisions, and therefore have begun filing separate ownership reports on Schedule 13G reflecting December 31, 2007 holdings in lieu of CRMC filing. As CRMC is no longer subject to a reporting requirement, it is filing reports indicating 0% ownership to close out its holdings and will cease making future filings as an entity. Note that CRGI and/or CWI may not have made filings for certain securities held as of December 31, 2007 because one or both divisions did not have a reporting obligation with respect to such securities.

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0.0% See explanation in Row 9

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12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

IA

SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Schedule 13G
Under the Securities Exchange Act of 1934

Amendment No. 9

Item 1(a) Name of Issuer:
KLA -Tencor Corporation

Item 1(b) Address of Issuer's Principal Executive Offices:
160 Rio Robles
San Jose, CA 95134

Item 2(a) Name of Person(s) Filing:
Capital Research and Management Company

Item 2(b) Address of Principal Business Office or, if none,
Residence:
333 South Hope Street
Los Angeles, CA 90071

Item 2(c) Citizenship: N/A

Item 2(d) Title of Class of Securities:
Common Stock

Item 2(e) CUSIP Number:
482480100

Item 3 If this statement is filed pursuant to sections 240.13d-1(b)
or 240.13d-2(b) or (c), check whether the person filing is a:
(e) An investment adviser in accordance with
section 240.13d-1(b)(1)(ii)(E).

Item 4 Ownership

Provide the following information regarding the aggregate
number and percentage of the class of securities of the issuer
identified in Item 1.

- (a) Amount beneficially owned:
- (b) Percent of class:
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote:
 - (ii) Shared power to vote or to direct the vote:
 - (iii) Sole power to dispose or to direct the disposition of:
 - (iv) Shared power to dispose or to direct the disposition of:

See page 2

Item 5 Ownership of Five Percent or Less of a Class. If this
statement is being filed to report the fact that as of the date
hereof the reporting person has ceased to be the beneficial
owner of more than five percent of the class of securities,
check the following:

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Item 6 Ownership of More than Five Percent on Behalf of Another
Person: N/A

Item 7 Identification and Classification of the Subsidiary Which
Acquired the Security Being Reported on By the Parent Holding
Company or Control Person. : N/A

Item 8 Identification and Classification of Members of the Group:
N/A

Item 9 Notice of Dissolution of Group: N/A

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 is true, complete and correct.

Date: February 13, 2008

Signature: Paul G. Haaga, Jr.^
Name/Title: Paul G. Haaga, Jr. - Vice Chairman
Capital Research and Management Company

^By /s/ Michele Y. Yang
Michele Y. Yang
Attorney-in-fact

Signed pursuant to a Power of Attorney dated December 21, 2007 included as an Exhibit to Schedule 13G filed with the Securities and Exchange Commission by Capital Research and Management Company on January 10, 2008 with respect to Lowes Companies, Incorporated.

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