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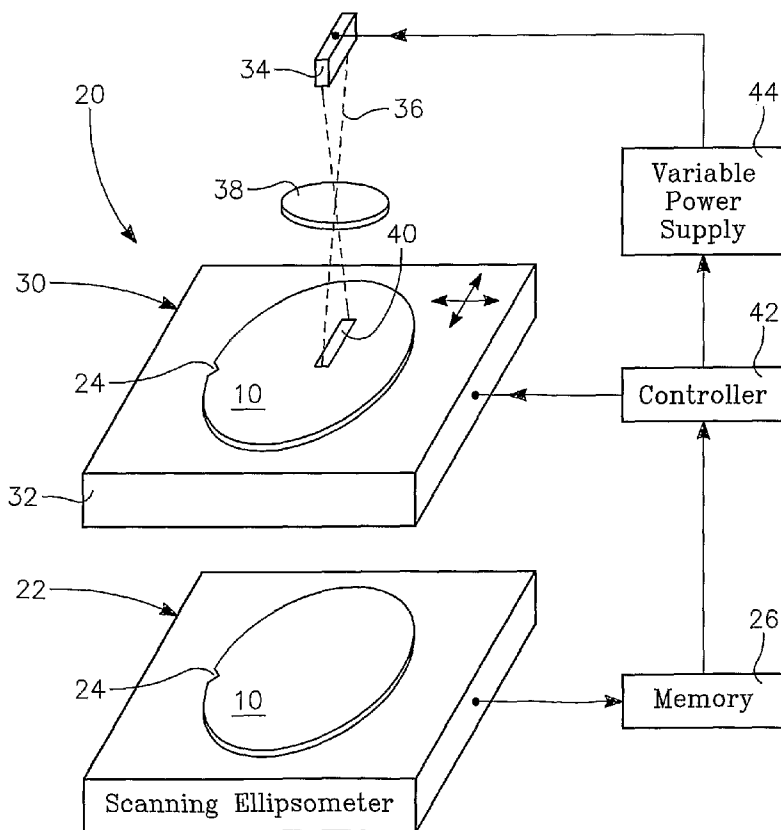
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[Continued on next page]

(54) Title: SCANNED RAPID THERMAL PROCESSING WITH FEED FORWARD CONTROL



(57) Abstract: A thermal processing system and method including scanning a line beam (40) of intense radiation (36) in a direction transverse to the line direction for thermally processing a wafer (10) with a localized effectively pulsed beam of radiant energy. The thickness of the wafer is two-dimensionally mapped and the map (26) is used to control (42) the degree of thermal processing, for example, the intensity of radiation in the line beam to increase the uniformity. The processing may include selective etching of a pre-existing layer or depositing more material by chemical vapor deposition.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/21178

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B23K 26/073 (2006.01)

USPC - 219/121.65

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - B23K 26/073, 26/06; G03F 7/20; H01L 21/00 (2006.01)

USPC - 219/121.65, 121.66, 121.73, 121.74, 121.75, 121.8, 121.81, 121.82; 700/166; 257/E21.134

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO WEB System (US, USPG-PUB), MicroPatent, IP.com, DialogPro, GoogleScholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---	US 6,531,681 B1 (MARKLE et al) 11 March 2003 (11.03.2003) entire document	1-6
Y		7-13, 19, 20
X ---	US 5,254,830 A (ZAROWIN et al) 19 October 1993 (19.10.1993) entire document	14-18
Y		7-13, 19, 20
A, P	US 6,908,774 B2 (GHYSELEN et al) 21 June 2005 (21.06.2005) entire document	1-20
A	US 5,871,805 A (LEMELSON) 16 February 1999 (16.02.1999) entire document	1-20

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

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