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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

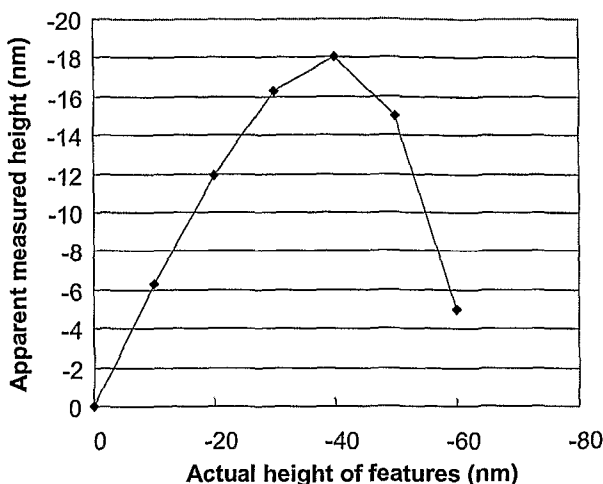
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(54) Title: INTERFEROMETER AND METHOD FOR MEASURING CHARACTERISTICS OF OPTICALLY UNRESOLVED SURFACE FEATURES



(57) Abstract: Disclosed is an interferometry analysis method that includes comparing information derivable from multiple interferometry signals corresponding to different surface locations of a test object to information corresponding to multiple models of the test object, wherein the multiple models are parametrized by a series of characteristics that relate to one or more under-resolved lateral features of the test object; and outputting information about the under-resolved surface feature based on the comparison.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US06/44102

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **G01B 11/02**(2006.01)

 USPC: 356/511
 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)
 U.S. : 356/511, 497, 503, 512, 513, 514, 516

 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 EAST database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,545,763 B1 (KIM et al) 08 April 2003 (08.04.2003).	1-56
A	US 5,589,938 A (DECK) 31 December 1996 (31.12.1996).	1-56
A	US 5,112,129 A (DAVIDSON et al) 12 May 1992 (12.05.1992).	1-56
A	US 5,398,113 A (DE GROOT) 14 March 1995 (14.03.1995).	1-56

Further documents are listed in the continuation of Box C. See patent family annex.

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"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
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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	"&" document member of the same patent family

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