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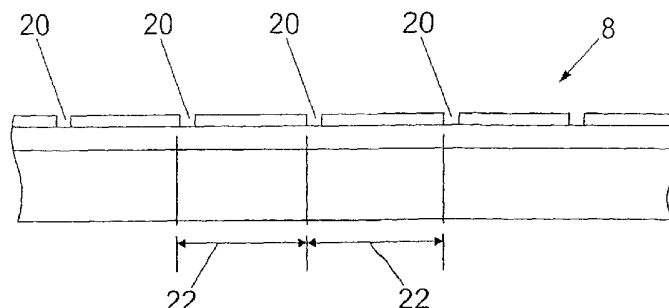
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(54) Title: "CONTROL OF ETCH AND DEPOSITION PROCESSES"



(57) Abstract: Etch or deposition processes in the manufacture of semiconductor devices, microelectronic machines and waveguides are controlled. The invention uses optical inspection to monitor structural features where the feature spacing (22) is so small in relation to the inspecting light probe wavelength that diffraction effects would normally prevent useful data being secured. A spectrally narrow illumination source is provided at a selected wavelength or wavelengths. The article being processed has an ordered feature structure. Each wavelength within the light probe is selected such that a whole number of wavelengths, or an integral fraction of a wavelength, compounds to a length within +/- 30 % of one of the feature spacings.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01B11/06

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 7 G01B

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 practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	US 4 039 370 A (KLEINKNECHT ET AL) 2 August 1977 (1977-08-02) figures 4,5	1-25
X	US 4 141 780 A (KLEINKNECHT ET AL) 27 February 1979 (1979-02-27) figures 1-4	1-25
X	US 5 432 607 A (TAUBENBLATT ET AL) 11 July 1995 (1995-07-11) figures 2,5,6	1-25
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☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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