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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))

[Continued on next page]

(54) **Title:** NETWORK ARCHITECTURE FOR LITHOGRAPHY MACHINE CLUSTER

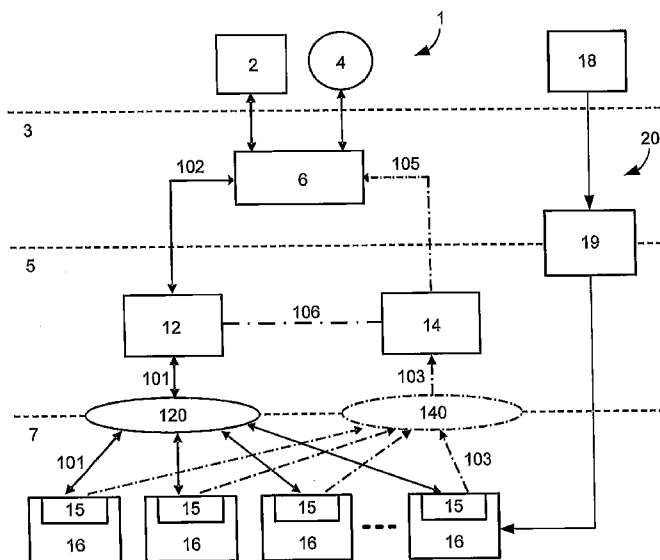


FIG. 1

(57) **Abstract:** A clustered substrate processing system comprising a plurality of lithography elements, each lithography element arranged for independent exposure of substrates according to pattern data. Each lithography element comprises a plurality of lithography subsystems, a control network arranged for communication of control information between the lithography subsystems and at least one element control unit, the element control unit arranged to transmit commands to the lithography subsystems and the lithography subsystems arranged to transmit responses to the element control unit, and a data network arranged for communication of data logging information from the lithography subsystems to at least one data network hub, the lithography subsystems arranged to transmit data logging information to the data network hub and the data hub arranged for receiving and storing the data logging information. The system further comprises a cluster front-end for interface to an operator or host system, the cluster front-end arranged for transmitting control information to the at least one machine control unit to control operation of the lithography subsystems for exposure of one or more wafers, and the front-end further arranged for receiving at least a portion of the data logging information received by the data network hub.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.
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)
G03F H01J G05B

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004/125355 A1 (NAYA HIDEMITSU [JP] ET AL) 1 July 2004 (2004-07-01) paragraphs [0009], [0040], [0041], [0067] - [0069]; figures 1,19 -----	1-20
A	US 2007/219736 A1 (OKITA SHINICHI [JP]) 20 September 2007 (2007-09-20) paragraphs [0079] - [0092], [0190] - [0193]; figures 1,2,22 -----	1-20
A	US 2002/120417 A1 (NAYA HIDEMITSU [JP] ET AL) 29 August 2002 (2002-08-29) paragraphs [0044], [0045], [0075]; figures 1,24 -----	1-20

Further documents are listed in the continuation of Box C.

See patent family annex.

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Date of the actual completion of the international search 2 October 2012	Date of mailing of the international search report 08/11/2012
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Weckesser, Jens
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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