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(71) Applicant (for all designated States except US): **ELECTRO SCIENTIFIC INDUSTRIES, INC** [US/US];
13900 NW Science Park Drive, Portland, Oregon 97229 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **UNRATH, Mark, A.** [US/US]; 2840 SW 66th Ave, Portland, Oregon 97225 (US).

(74) Agent: **ANGELLO, Paul, S.**; Stoel Rives, LLP, 900 SW Fifth Avenue, Suite 2600, Portland, Oregon 97204 (US).

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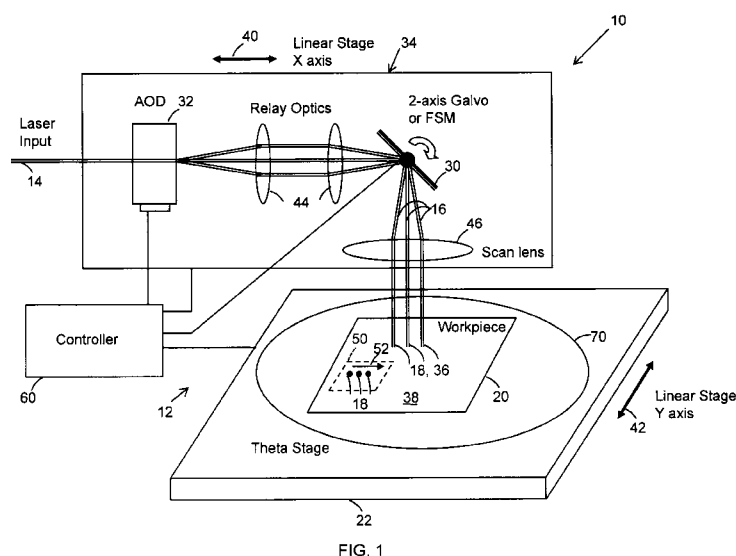
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(54) Title: CONTROLLING DYNAMIC AND THERMAL LOADS ON LASER BEAM POSITIONING SYSTEM TO ACHIEVE HIGH THROUGHPUT LASER PROCESSING OF WORKPIECE FEATURES



(57) Abstract: A method of accomplishing high-throughput laser processing of workpiece features (18) arranged in a densely spaced pattern minimizes workpiece feature processing inaccuracy and quality degradation that result from dynamic and thermal loads on laser beam positioning and optical components directing the laser beam during workpiece feature processing. A preferred embodiment is implemented with a laser beam positioning system (32) composed of a zero-inertia optical deflector of an acousto-optic beam deflector (AOD) or an electro-optical deflector (EOD) type, a galvanometer head (30), and a linear stage (34) cooperating to position the laser beam (16) among the workpiece features.

A. CLASSIFICATION OF SUBJECT MATTER***B23K 26/04(2006.01)i, H01L 31/042(2006.01)i***

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)

B23K 26/04; B23K 1/00; B23K 26/00; B23K 26/38; H01S 3/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: position, throughput

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005-0279807 A1 (JAY JOHNSON) 22 December 2005 See claims 1-34.	1-17
A	US 2008-0017618 A1 (KELLY BRULAND et al.) 24 January 2008 See claims 1-20.	1-17
A	JP 02-942804 B2 (NIKON CORP) 25 June 1999 See claims 1-2.	1-17
A	JP 01-113191 A (MITSUBISHI ELECTRIC CORP) 01 May 1989 See claims 1-3.	1



Further documents are listed in the continuation of Box C.



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Government Complex-Daejeon, 139 Seonsa-ro, Seo-
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Authorized officer

KANG, Min sug

Telephone No. 82-42-481-5860



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