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(54) Title: INSTRUMENT CHANGING ASSEMBLY AND METHODS

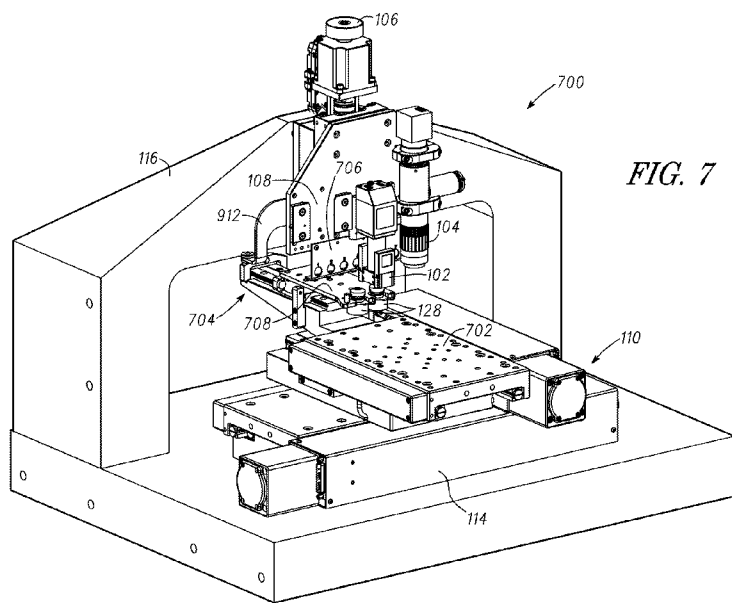


FIG. 7

(57) Abstract: An instrument changing assembly includes a magazine having one or more probe assembly stations. The assembly further includes at least one probe change tool including a receptacle socket. One or more probe assemblies are retained within the one or more probe assembly stations. The one or more probe assemblies each include a probe receptacle including a probe retention recess and a common socket fitting configured for complementary fitting with a common receptacle socket. The probe change tool is configured to install or extract the respective probes from a mechanical testing instrument according to the complementary fit between the common socket fitting and the common receptacle socket of the probe assemblies. Alternatively, the instrument changing assembly includes an instrument array housing including a plurality of instruments. Each of the one or more instruments (probe and transducer combination) are deployed relative to the instrument array housing with an instrument deployment actuator.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G01Q 70/06, 60/22; B82Y 35/00 (2014.01) CPC - G01Q 60/366, 70/06; B82Y 35/00 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) Classification(s): G01Q 70/06, 60/22; B82Y 35/00 (2014.01) CPC Classification(s): G01Q 60/366, 70/06; B82Y 35/00 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) MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google Scholar; IP.COM; IEEE; ESPACENET Keywords used: automatic; probe; transducer; robotic; mechanical testing; nano-indenter; atomic force; AFM		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2012/109577 A2 (VODNICK, D et al.) August 16, 2012; abstract; figures 1-13B; page 15, lines 8-11; page 19, lines 5-16; page 37, lines 1-34; page 40, lines 4-22; page 42, lines 13-33	37-46
A	WO 2011/121348 A1 (HUMPHRIS, A) October 06, 2011; whole document	1-46
A	US 8,196,458 B2 (BONILLA, F et al.) June 12, 2012; whole document	1-46
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