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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,

[Continued on next page]

(54) Title: MULTIBEAM SYSTEM

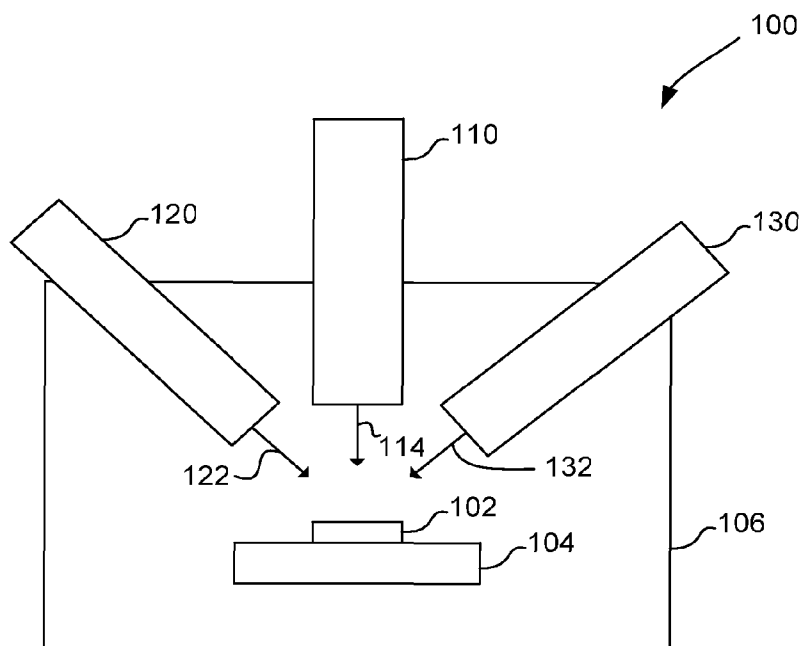


FIG. 1

[Continued on next page]



HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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(57) Abstract: A multibeam system in which a charged particle beam and one or more additional beams can be directed to the target within a single vacuum chamber. A first beam column preferably produces a beam for rapid processing, and a second beam column produces a beam for more precise processing. A third beam column can be used to produce a beam useful for forming an image of the sample while producing little or no change in the sample.

A. CLASSIFICATION OF SUBJECT MATTER***H01L 21/027(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)

IPC: H01J 37/08, H01J 37/31, H01L 21/3065, G01N 1/28

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 since 1975

Japanese Utility models and applications for Utility models since 1975

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

eKOPASS(KIPO internal) & keywords: charge particle, ion beam, electron, liquid, plasma

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 06-260129 A (SEIKO INSTR. INC.) 16 September 1994 See abstract, figs. 1 and 4, paras. [0013]-[0016] and [0023]	1-18
Y	JP 06-318443 A (HITACHI LTD. et al.) 15 November 1994 See abstract, fig. 1, paras. [0014]-[0015]	1-18
Y	JP 09-257670 A (HITACHI LTD.) 03 October 1997 See abstract, figs. 1-2, paras. [0004] and [0007]	1-18
Y	JP 09-205079 A (HITACHI LTD.) 05 August 1997 See abstract, figs. 1 and 4, paras. [0009], [00018] and [0025]	1-18



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

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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