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(54) Title: HIGH SPEED ACQUISITION VISION SYSTEM AND METHOD FOR SELECTIVELY VIEWING OBJECT FEATURES

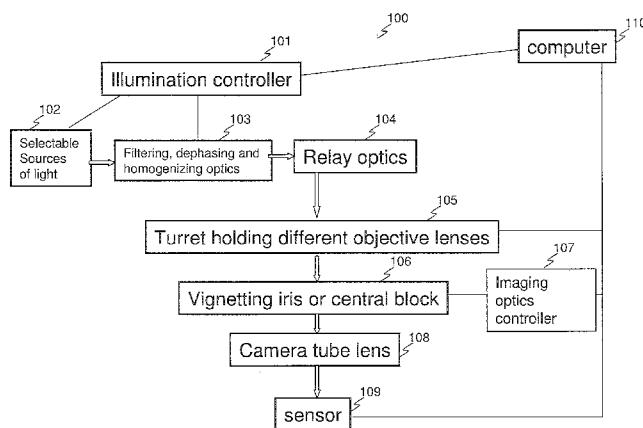


Figure 1

(57) Abstract: System and method for selectively viewing features of objects, including features hidden under non-transparent materials. The system includes: illuminating light source producing illuminating light having controlled angular spectrum; homogenizing optics for spatial intensity modulation of illumination light; dephasing optics to reduce or suppress interference pattern in image due to the coherence of illumination light; infinity corrected objective directing the illuminating light on the object and collecting light from the object; illumination optical path delivering the illuminating light from the illuminating light source to infinity-corrected objective; relay optics for introducing necessary tilt angle for rays of the illuminating light entering the infinity corrected objective; adjustable iris vignetting free aperture of optical fiber; apodizing element within relay optics for spatial modulation of illumination intensity; image sensor for creating image of object; and imaging optical path for delivering light from object to image sensor, which includes tube lens, removable block and adjustable iris.



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A. CLASSIFICATION OF SUBJECT MATTER**G01B 11/24(2006.01)i, G01B 9/04(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)

G01B 11/24; G02B 21/00; G01J 1/20; G02B 7/05; G02B 21/26

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: infinity corrected objective, relay optic, microscopy, spary light, tilt angle, aperture and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003-0058454 A1 (DAVID SCHEINER) 27 March 2003 See abstract, claims 1-24 and figures 1-11.	1-31
A	US 7700903 B2 (WEISS ADAM et al.) 20 April 2010 See abstract, claims 1-21 and figures 1-13.	1-31
A	US 05604344 A (FINAROV; MOSHE) 18 February 1997 See abstract, claims 1-18 and figures 1-6.	1-31
A	US 05886813 A (NAGASAWA; NOBUYUKI) 23 March 1999 See abstract, claims 1-10 and figures 1-5.	1-31

 Further documents are listed in the continuation of Box C. See patent family annex.

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