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(54) **NON-CONTACT SURFACE CHARACTERIZATION USING MODULATED ILLUMINATION**

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(57) **ABSTRACT**

(75) **Inventor: Xavier M. Colonna de Lega,**
Middlefield, CT (US)

(73) **Assignee: Zygo Corporation,** Middfield, CT (US)

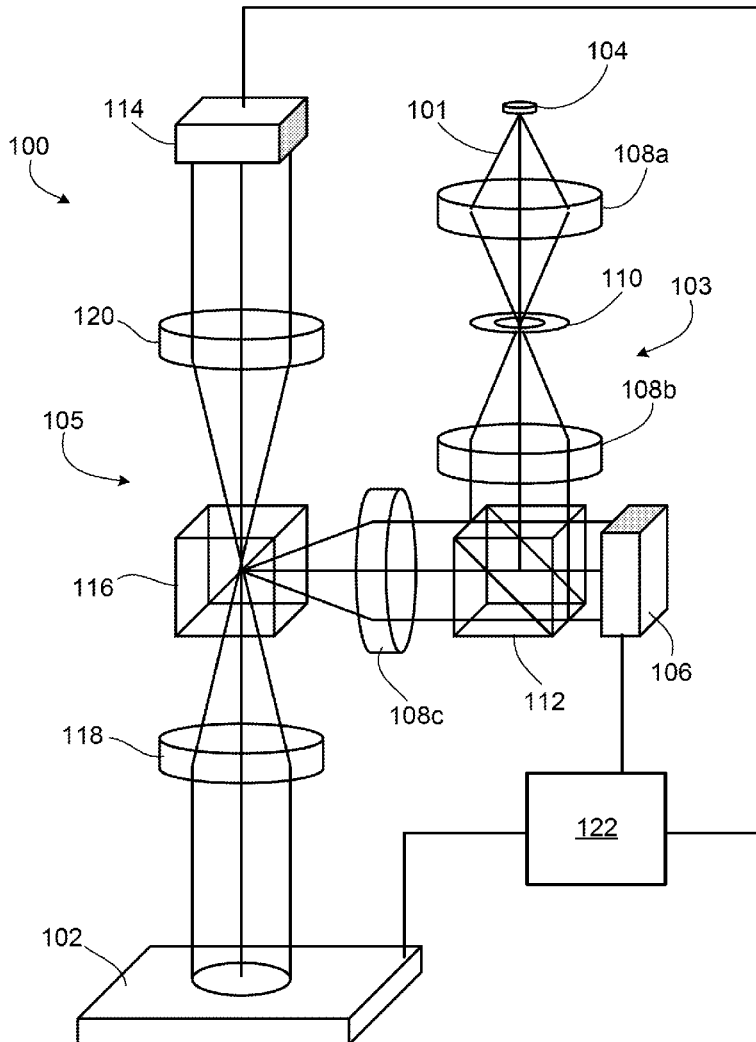
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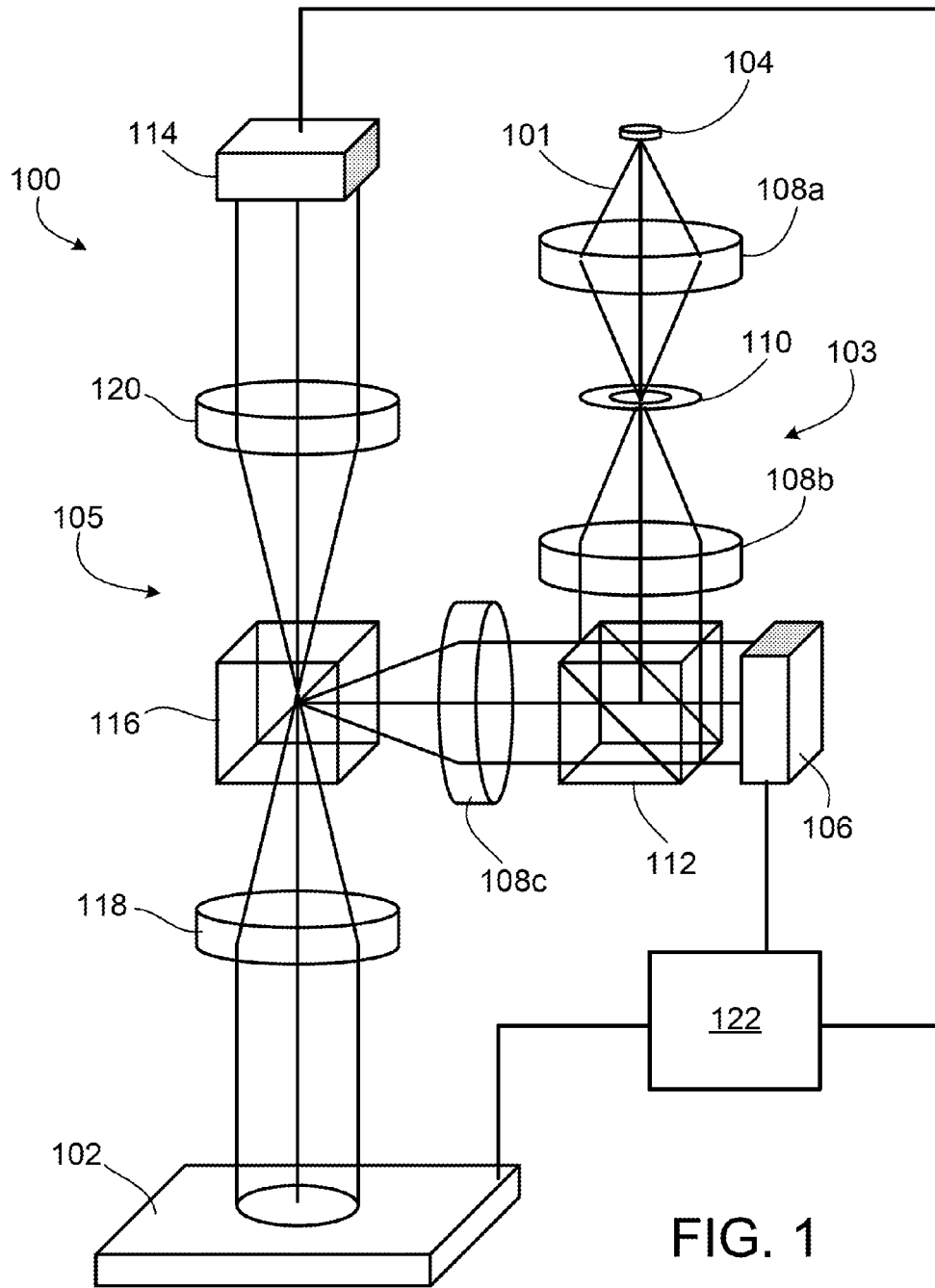
Related U.S. Application Data

(60) Provisional application No. 61/419,386, filed on Dec. 3, 2010.

Methods for forming a three-dimensional image of a test object include directing light to a surface of best-focus of an imaging optic, where the light has an intensity modulation in at least one direction in the surface of best-focus, scanning a test object relative to the imaging optic so that a surface of the measurement object passes through the surface of best-focus of the imaging optic as the test object is scanned, acquiring, for each of a series of positions of the test object during the scan, a single image of the measurement object using the imaging optic, in which the intensity modulation of the light in the surface of best-focus is different for successive images, and forming a three-dimensional image of the test object based on the acquired images.



Align Ex. 1017



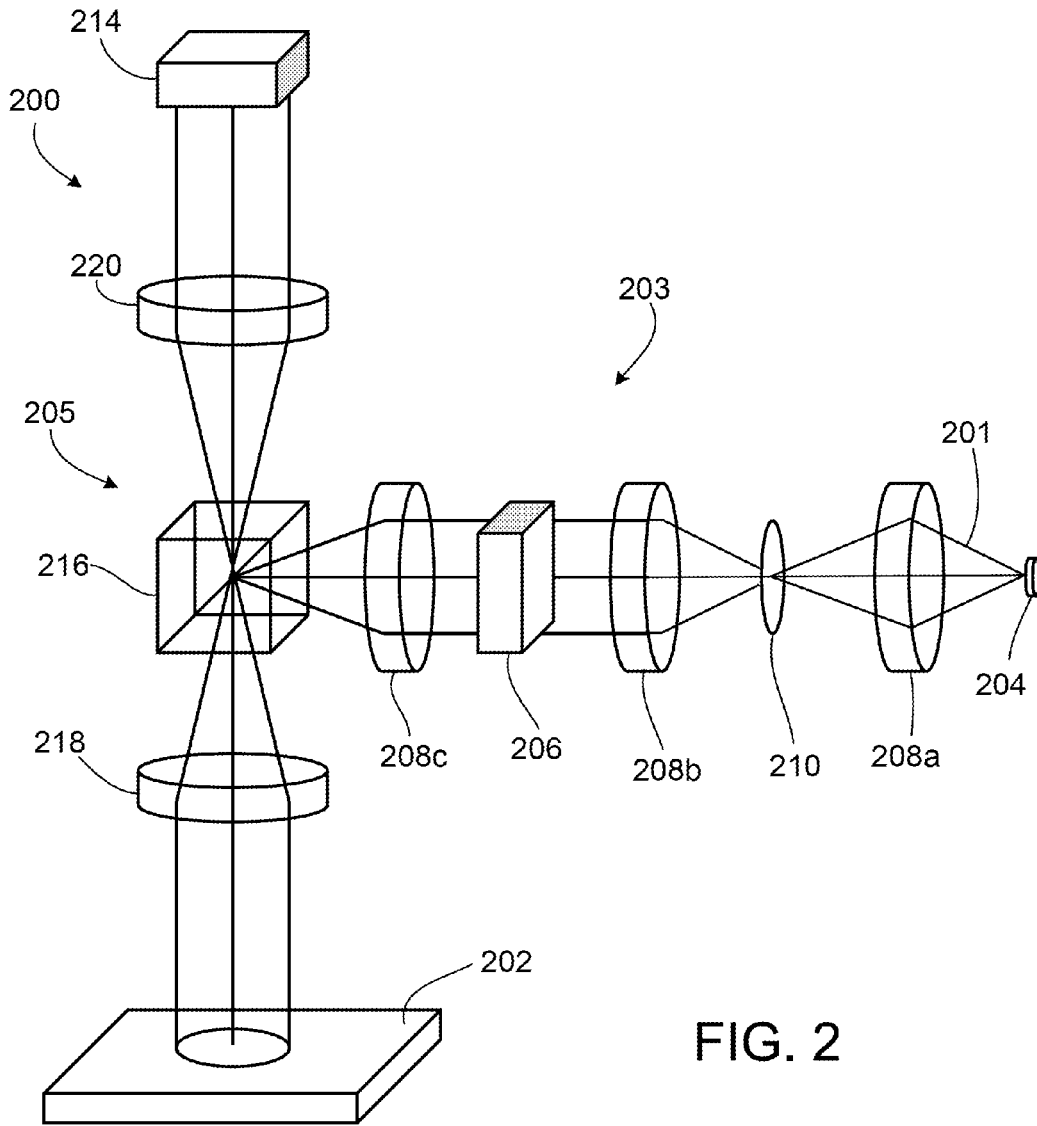


FIG. 2

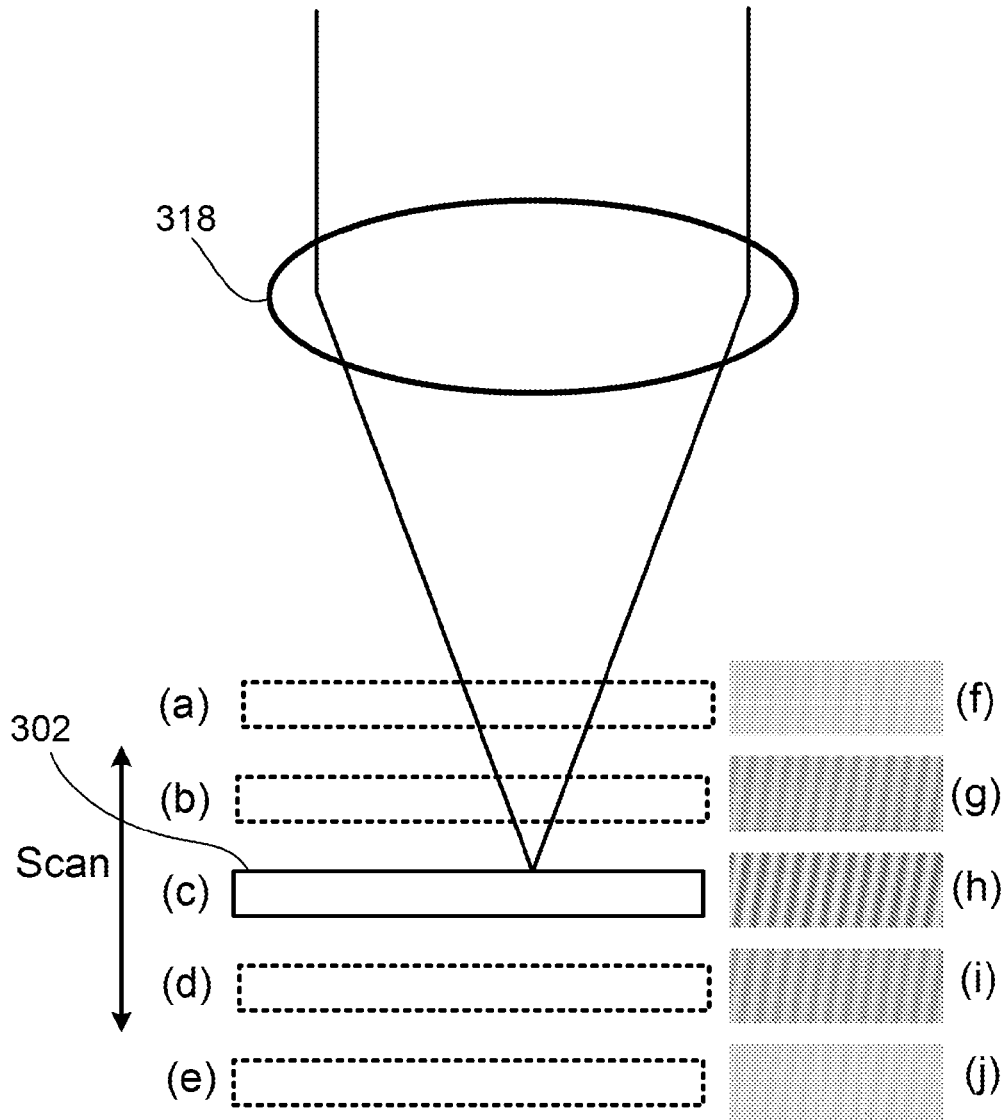


FIG. 3

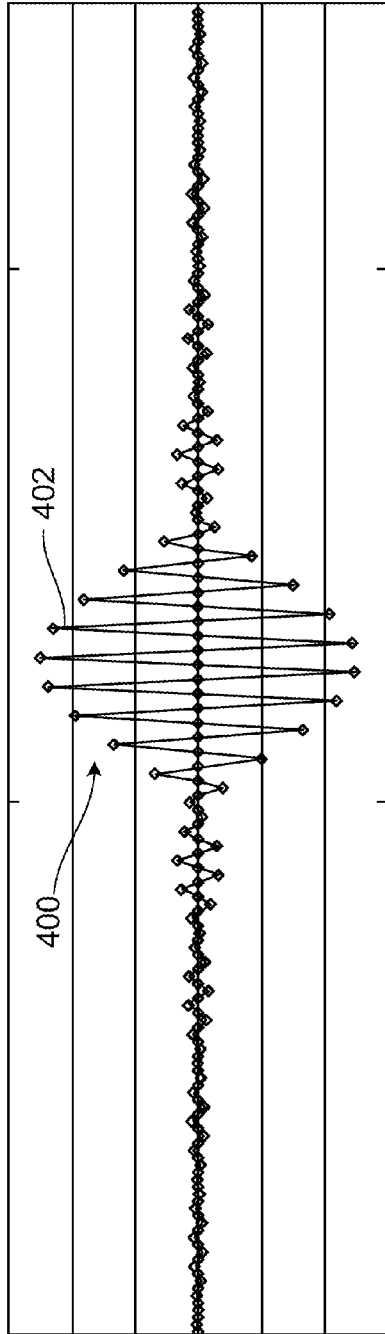


FIG. 4

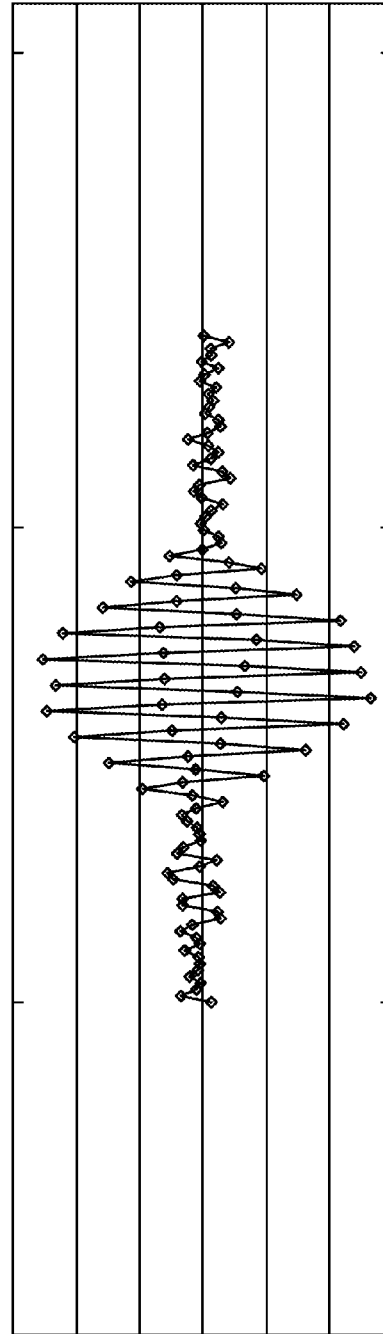


FIG. 5

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