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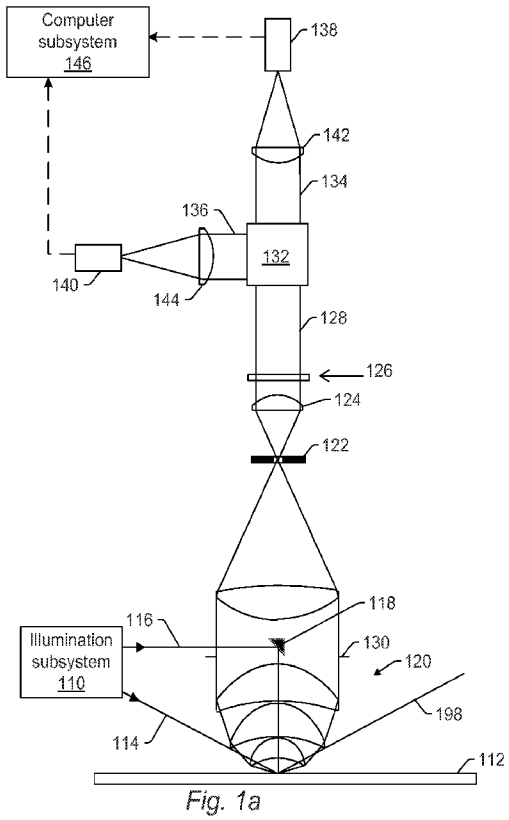


Fig. 1a

(57) Abstract: A system configured to inspect a wafer and its operating method, the system comprising: an illumination subsystem configured to illuminate the wafer; a collection subsystem configured to collect light scattered from the wafer and to preserve the polarization of the scattered light; an optical element configured to separate the scattered light collected in different segments of the collection numerical aperture of the collection subsystem, wherein the optical element is positioned at a Fourier plane or a conjugate of the Fourier plane of the collection subsystem; a polarizing element configured to separate the scattered light in one of the different segments into different portions of the scattered light based on polarization; and a detector configured to detect one of the different portions of the scattered light and to generate output responsive to the detected light, wherein the output is used to detect defects on the wafer.

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