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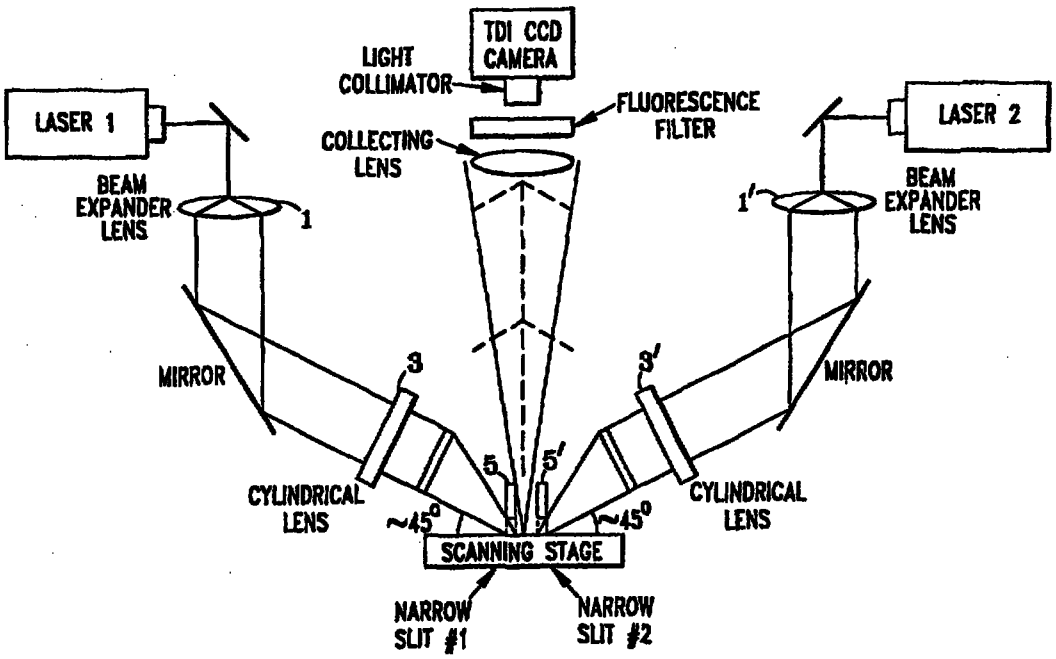
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(54) Title: SEMI CONDUCTOR STRUCTURES



(57) Abstract

Semiconductor wafers, circuit boards and similar multi–layer structures are optically inspected at high speeds with the aid of preferably a pair of oppositely and inclinedly directed laser beams at inclined angles to the vertical and the wafer surface to cause fluorescence by a photoresist layer carrying conductor patterns, defects in which are to be inspected, and using preferably a time–delay–integration CCD imaging camera for recording a fluorescent resist surface image accentuating the non–fluorescing conductor pattern thereupon, while masking all light from layers therebelow.