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(54) Title: OPTICAL CALIBRATION DISCS

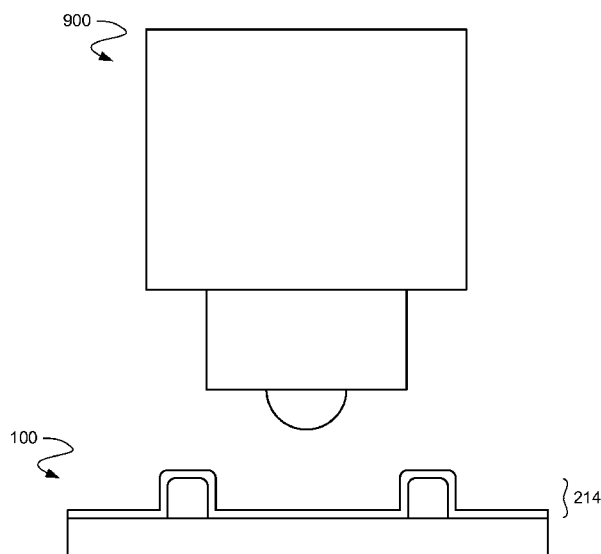


FIG. 9

(57) Abstract: A system and method for optical calibration discs includes dispensing a resist layer on a portion of a substrate. A surface of the substrate and a topographically patterned surface of predetermined objects of a template are contacted together, wherein the contacting causes the resist layer between the portion of the substrate and the template to conform to the topographically patterned surface, and the resist layer includes nano-scale voids. The nano-scale voids are reduced by longer spread time, thinner resist, and removal of the residual resist layer together with the voids by using a descum step. The resist layer is hardened into a negative image of the topographically patterned surface, wherein the negative image includes surfaces that are operable to be individually measured by an optical reader. The substrate and the template are separated, wherein the resist layer adheres to the surface of the substrate.