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(54) **Title:** FULL WAFER THICKNESS MAP REFLECTOMETRY

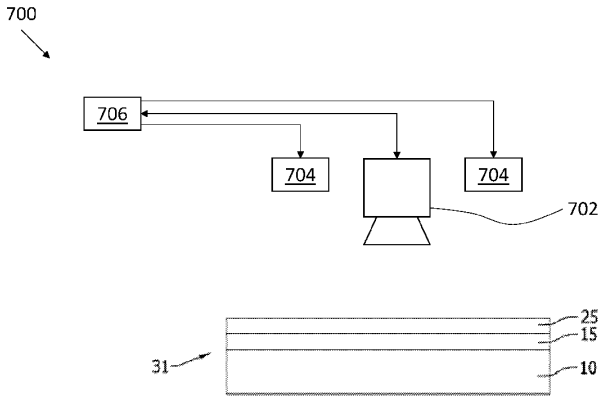

FIG. 7

(57) **Abstract:** A method of measuring a thickness of a semiconductor structure includes illuminating the semiconductor structure with the incoherent, uncollimated light from at least one light source, and capturing, using a camera, at least one image of the semiconductor structure illuminated by the light from the light source. The at least one image includes separate first color, second color, and third color images, the first, second, and third colors being different from each other. Thickness maps are produced for at least two layers of the semiconductor structure based on the first color, second color, and third color images and reference first color, second color, and third color images of a reference silicon wafer.

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