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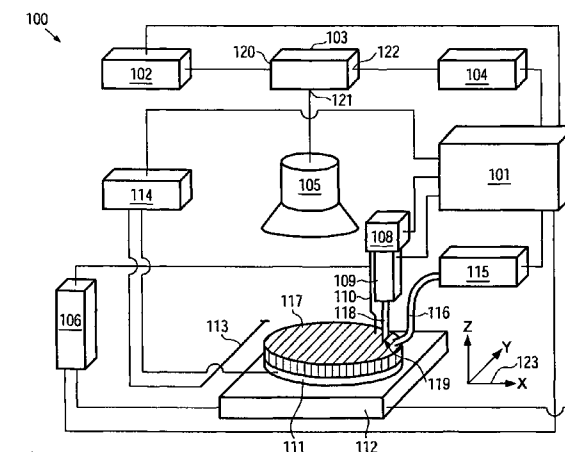


FIG. 1

(57) Abstract: An apparatus for measuring a lifetime of charge carriers comprises a measuring probe comprising means for directing ultraviolet radiation to a measuring position. The measuring probe further comprises at least one electrode provided at a predetermined spatial relationship to the measuring position. The apparatus further comprises a microwave source adapted to direct microwave radiation to the measuring position, a microwave detector adapted to measure an alteration of an intensity of microwave radiation reflected at the measuring position in response to the ultraviolet radiation and a semiconductor structure holder adapted to receive a semiconductor structure and to provide an electric contact to a portion of the semiconductor structure. Additionally, means for moving the substrate holder relative to the measuring probe for positioning at least one portion of the semiconductor structure at the measuring position are provided. The apparatus further comprises a power source adapted to apply a bias voltage between the semiconductor structure holder and the electrode.