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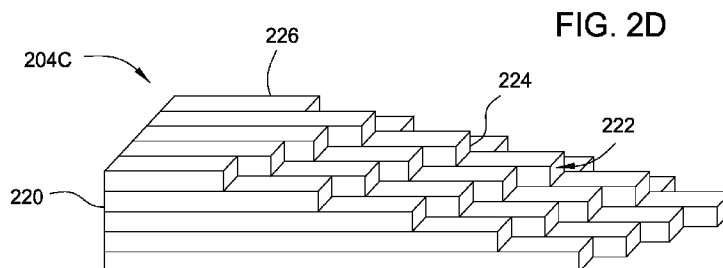
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(54) **Title:** APPARATUS AND METHOD FOR SPECKLE REDUCTION IN LASER PROCESSING EQUIPMENT



(57) **Abstract:** Embodiments described herein provide apparatus and methods for processing semiconductor substrates with uniform laser energy. A laser pulse or beam is directed to a spatial homogenizer, which may be a plurality of lenses arranged along a plane perpendicular to the optical path of the laser energy, an example being a microlens array. The spatially uniformized energy produced by the spatial homogenizer is then directed to a refractive medium that has a plurality of thicknesses. Each thickness of the plurality of thicknesses is different from the other thicknesses by at least the coherence length of the laser energy.

