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AND ULTRA-HIGH RESISTIVITY SINGLE CRYSTAL SILICON INGOT GROWTH

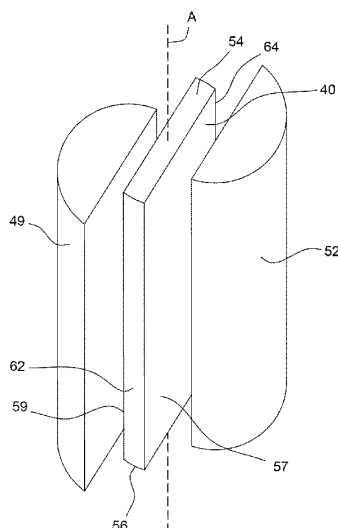


FIG. 4

(57) Abstract: Methods for forming single crystal silicon ingots with improved resistivity control are disclosed. The methods involve growth of a sample rod. The sample rod may have a diameter less than the diameter of the product ingot. The sample rod is cropped to form a center slab. The resistivity of the center slab may be measured directly such as by a four-point probe. The sample rod or optionally the center slab may be annealed in a thermal donor kill cycle prior to measuring the resistivity, and the annealed rod or slab is irradiated with light in order to enhance the relaxation rate and enable more rapid resistivity measurement.

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