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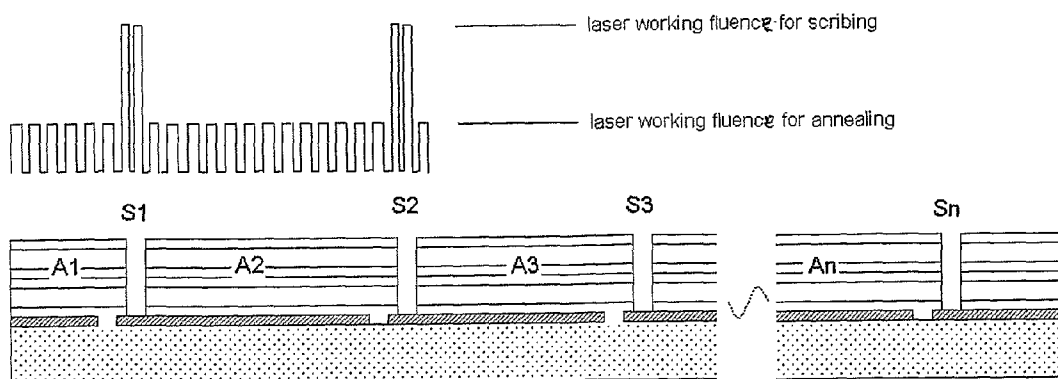


FIG. 4

(57) Abstract: The present invention provides a single laser and optics system (9) for the manufacture of thin solar cell modules. With this laser and optics system (9) both scribing of a PIN amorphous semiconductor junction (6) and annealing of the PIN amorphous semiconductor junction (6) to convert it to a crystalline structure is performed in a single sweep of the laser beam.

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