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(54) Title: PROCESS AND STRUCTURES FOR FABRICATION OF SOLAR CELLS

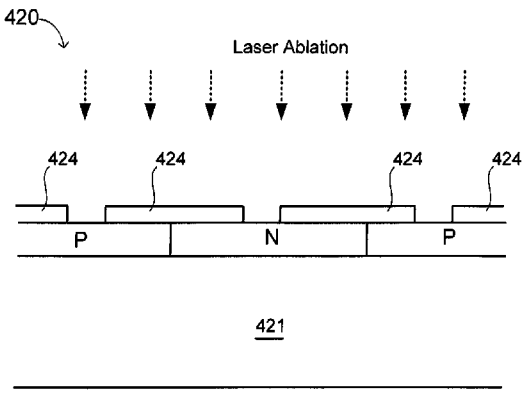


FIG. 13

(57) Abstract: Contact holes of solar cells (420) are formed by laser ablation to accommodate various solar cell designs. Use of a laser to form the contact holes is facilitated by replacing films formed on the diffusion regions with a film (424) that has substantially uniform thickness. Contact holes may be formed to deep diffusion regions to increase the laser ablation process margins. The laser configuration may be tailored to form contact holes through dielectric films of varying thicknesses.

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