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【193】Stability and meta-stability of CZTS solar cells under illumination and thermal treatment

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Changes in the ordering and electric metastable effects make the precise power rating of photovoltaic copper-zinc-tin-sulphide (CZTS) devices difficult. Reliable measurement routines are crucial for total yield prediction and investment return calculations. The aim was to find faster methods to stabilize CZTS solar devices using illumination and thermal treatment. The method used here on CZTS solar devices was by making four different routes combining thermal treatment in 85℃ and 100℃ with illumination in 25℃ and 50℃. As a result, the route with two consecutive annealings at 100℃ and 85℃ followed by illumination at 25℃ provides the best power stabilization.

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