

This chapter has shown the development and present state of CdTe solar cells and modules. Wide-scale commercialization of CdTe technologies hinges on improving performance, understanding stability, developing low-cost consumer products for varying energy and photonic market demands, and managing cadmium. At the cell level, improved performance can be expected as fundamental understanding of the device operation improves. Issues related to stability involve both cell-related mechanisms, linked to cell processing, and module-related mechanisms, linked to encapsulation and environmental conditions. Future CdTe product development hinges on successful marketing of photovoltaics as a viable energy source, which in turn depends on reductions in the cost per installed watt, which, at the time of this writing, makes thin-film CdTe solar cells a leading contender for future power generation.

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