

Additional lighting effects for photovoltaic improvements in the performance of solar cells

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The basic function of the water flow lens (WFL) system is to cool, decrease, and increase light intensity with inevitable spectral oscillations, but in reality, that manipulation helps us better understand the possible additional optical and light effects and, thus, the nature of light itself, in the hopes of making significant progress toward the use of solar energy. According to our published research on a variety of solar devices, including commercial monocrystalline and amorphous Si-solar cells, differently designed Sb₂S₃-based solar cells made of synthesized undoped and doped semiconductors, and dye-sensitized solar cells (Dyesol/ Greatcell Solar DSL 30 NRD-T) with varying sensitizers and co-sensitizers, PV performance using the WFL system can show significant improvements in all tested conditions. Based on all of our previous results on different solar devices, many potential explanations for demonstrating common extra-light effects for increases in the performance of solar cells were experimentally compared and discussed. The theoretical history of light nature was reviewed, and our findings were commented on along with new disclosure.