Perovskite Solar Cells: A Brief Introduction and some Remarks

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The spectacular and unprecedented rise of so-called perovskite solar cells (PSCs) in conversion efficiency with low-cost manufacturing processes has grabbed the attention of the scientific community in the field of photovoltaics during the last four years. The inclusion of perovskite type absorber materials, typically CH₃NH₃PbI₃, has been the key factor for the development of this emerging technology that has created a lot of expectations. However, many poorly understood aspects of its operating modes still need of reliable explanations. This paper provides a brief introduction to the structure, materials and characteristics of PSCs. In addition, some remarks about the stability of these devices are provided and the state-of-the-art of several subjects of interest is discussed, such as the hysteresis phenomenon of current-voltage curves.

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