

عنوان مقاله:

Recent Progress in Flexible Perovskite Solar Cells

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چهارمین کنفرانس بین المللی نوآوری های اخیر در شیمی و مهندسی شیمی (سال: 1396)

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خلاصه مقاله:

Perovskite solar cells have emerged as one of the hottest research topics in the solar energy area due to their advantages of high photovoltaic performance, low cost, simple fabrication process, excellent mechanical bending, high flexibility, and high photovoltaic performance. Rapid progress of perovskite solar cell performance from 3.8% to 22.1% within only seven years make them the fastest-advancing solar technology to date. In recent years, with the growing demand of flexible energy sources for wearable and portable devices, many research efforts have been focusing on developing the perovskite solar cell technology on flexible substrates. In this review, the most recent advances and approaches in flexible perovskite solar cells that have contributed to improve device characteristics, such as power conversion efficiency and stability are described. In addition, some challenges and opportunities for future commercial applications are presented.

کلمات کلیدی:

Perovskite solar cells, Flexible device, Power conversion efficiency

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