

The key role of methylammonium chloride additive in directing the crystallisation of 1.8 eV perovskites to induce more effective halide homogenisation was elucidated. The as-formed perovskite demonstrates suppressed halide segregation, improved optoelectronic properties and ambient stability. In conjunction with a self-assembled monolayer (Me-4PACz), a V_{oc} of 1.25 V and steady-state PCE of 17% was achieved.

Keywords: perovskite solar cells, chloride additives, halide homogenisation, suppressed halide segregation

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Chloride-based additive engineering for efficient and stable wide-bandgap perovskite solar cells

ToC figure

