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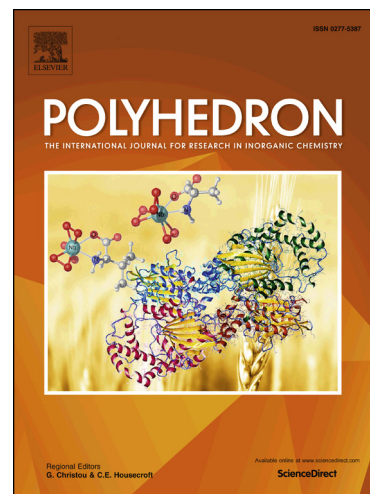
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# Synthesis, characterization and use of highly stable trimethyl sulfonium tin(IV) halide defect perovskites in dye sensitized solar cells

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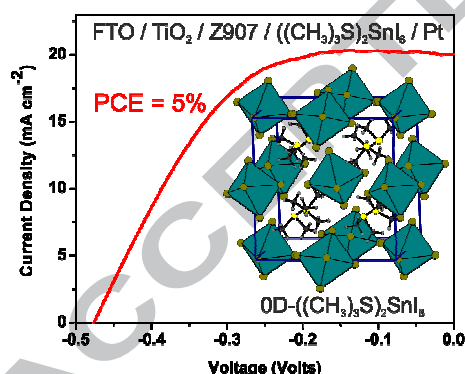
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## Synopsis

The novel  $((\text{CH}_3)_3\text{S})_2\text{SnX}_6$  ( $\text{X} = \text{Cl}, \text{Br}, \text{I}$ ) defect perovskites form a 0D network of  $[\text{SnX}_6]$  octahedra. The air-stable and non-toxic materials exhibit a tunable band gap in the range 1.4 – 4.1 eV.  $((\text{CH}_3)_3\text{S})_2\text{SnI}_6$  was successfully incorporated in dye-sensitized solar cells presenting a power conversion efficiency of 5%.

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