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Halide Perovskites: New Science or “only” future Energy Converters?¹

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Over the years many new ideas and systems for photovoltaic, PV, solar to electrical energy conversion have been explored, but only a few have really impacted PV's role as a more sustainable, environmentally less problematic and safer source of electrical power than fossil or nuclear fuel-based generation. Will Halide Perovskites, HaPs, be able to join the very select group of commercial PV options? To try to address this question, we put Halide Perovskite(HaP) cells in perspective with respect to other PV cells. Doing so also allows to identify fundamental scientific issues that can be important for PV and beyond. What remains to be seen is if those issues lead to new science or scientific insights or additional use of existing models. Being more specific is problematic, given the fact that this will be 4 months after writing this abstract.

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