

Special Issue on
Halide Perovskites for Photovoltaic and Optoelectronic Applications

CALL FOR PAPERS

In recent years, halide perovskites have gained attention due to their high potential in photovoltaic and optoelectronic applications. For example, their photovoltaic performance has reached beyond 23%, surpassing that of polycrystalline silicon (poly-Si) based solar cells. Halide perovskite quantum dots possess advantages of organic emitters with high photoluminescence quantum yield >90% as well as inorganic emitters with narrow bandwidth <20 nm. They have also been applied to high energy radiation and light detection. Despite these advantages, there are also many challenges that need to be tackled, such as instability, toxicity, and scalability. In light of the rapid ongoing developments of perovskite material synthesis, device fabrication, and photophysics investigation in this field, we believe it is the right time to launch this special issue.

We are seeking original research articles as well as review articles on halide perovskites for photovoltaic and optoelectronic applications. Research articles on novel perovskite synthesis, device engineering, DFT calculations, and photophysics are highly encouraged.

Potential topics include but are not limited to the following:

- ▶ Halide perovskites for photovoltaics
- ▶ Halide perovskites for light-emitting and lasing applications
- ▶ Halide perovskites for photodetection
- ▶ Photophysics of halide perovskites
- ▶ Theoretical physics of halide perovskites
- ▶ State, industrial merits, cost evaluation, challenge, and future of halide perovskite for optoelectronic applications

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/aoe/hppoa/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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