

# Investigation of HTL-free perovskite solar cell under LED illumination: interplay between energy bandgap and absorber optimization

MOSTAFA MOHAMED SALAHELDIN ABDELKHALEK ELEWA

## Abstract

<https://iopscience.iop.org/article/10.1088/1402-4896/ad3c7c/meta>

*Physica Scripta* 2024, April