

## Special Issue

# Advances in Photovoltaic Technologies and Sustainable Energy Solutions

### Message from the Guest Editor

With the continued global effort in mitigating the dependence on a singular energy source, solar photovoltaic devices have been presenting a dependable alternative for decades. From conventional first-generation silicon cells to perovskites and tandem cells, research and development in this area confirm the central position of solar photovoltaic devices in the global energy mix. This Special Issue focuses on the latest advances and trends in solar photovoltaic technologies, material synthesis deposition and characterization and new device design and modeling. Improvements in device efficiency as well as price/kW are occurring at an ever-increasing pace, and research and development efforts offer significant insights on these important trends. The scope of this Special Issue includes, but is not limited to, photovoltaic materials, device design, electrode selection, the replacement of hazardous materials, manufacturing technologies, additive manufacturing roles, device simulation, device testing, circular economy, novel materials, etc.

### Guest Editor

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