

## Special Issue

# Innovations in Solar Cell Technology: Materials, Efficiency and Sustainability

### Message from the Guest Editors

The Special Issue studies transformative advancements in solar energy technologies, prioritizing the development of novel materials, strategies to enhance performance, and environmentally responsible practices. It highlights groundbreaking contributions on photovoltaic materials such as perovskites, organic photovoltaics, and tandem solar cells, offering insights into their potential to revolutionize industry. Significant focus is placed on the use of sustainable materials, recycling innovations, and minimizing environmental impact throughout the lifecycles of solar cells. This Special Issue underscores the intersection of materials science, advanced engineering techniques and sustainability to develop next-generation solar cells. By addressing the integration of high-efficiency designs and eco-friendly practices, it seeks to provide a comprehensive framework for developing photovoltaic technologies that align with global sustainability goals. It also explores advanced characterization techniques and their roles in identifying defects, enhancing material properties, and optimizing device interfaces. These insights are critical for pushing the boundaries of solar cell technology.

### Guest Editors

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### Deadline for manuscript submissions

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