# Special Issue

# High-Efficiency Crystalline Silicon Solar Cells

## Message from the Guest Editors

Photovoltaic solar energy provides humankind with a valuable instrument to develop a sustainable, globally prosperous, and environmentally friendly society. High-efficiency cell structures help to reduce the costs of photovoltaic energy generation in two ways: (i) by increasing the efficiency—the power output per area of used silicon; (ii) by allowing the use of thinner wafers, achieving the same level or even improved efficiency. However, four important aspects are associated with high-efficiency crystalline silicon solar cells: the surface passivation, metal contacts, material quality and cell structure. This Special Issue looks for participations in the high-efficiency crystalline silicon solar cells under enhanced scientific and multidisciplinary knowledge to improve performance and deployment for PV energy security. Topics of interest include but are not limited to:

- Silicon heterojunction;
- Passivated emitter rear contact (PERC, PERT, PERT);
- Carrier selective contact;
- Poly-Si application to solar cells (TopCon, POLO, etc.);
- Interdigitated back contact (IBC);
- Hybrid back contact;
- Perovskite/silicon tandem;
- III-V/silicon tandem.

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## Deadline for manuscript submissions

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*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

## Editor-in-Chief

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