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## A review of progress on third-generation photo-voltaic cells,

*Thursday, 11 July 2019 09:00 (1 hour)*

A review progress on third-generation photovoltaic cells, are solar cells designed to overcome the Shockley–Queisser limit of 31–41% power efficiency for single bandgap solar cells. These cells are not widely commercially available unlike silicon p-n junction cells (“first generation”) and thin film cells (“second generation”). Third-generation cells are made using inexpensive and scalable manufacturing techniques, such as solution processing, but are far less stable than silicon PV. They are either relatively high in efficiency (perovskites cells) or made from non-toxic materials (organic cells), but rarely both. The main focus of my talk will be on how the physics of organic and perovskite cells determines the strengths and limitations of these two technologies.

**Apply to be considered for a student award (Yes / No)?**

No

**Level for award (Hons, MSc, PhD, N/A)?**

N/A

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