Multi-Junction Solar Cells: Approaching the Fundamental Efficiency Limit

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Multi-junction devices sit proudly at the top of the record efficiency chart for solar cells, and have been steadily increasing in efficiency for the previous 20 years. This talk will outline some of the reasons why this class of devices is more efficient than any competitor, highlight the current research directions seeking to propel performance even higher, and present some of the fundamental limitations which ultimately will cap efficiency. The talk will describe the advent of a new technology, micro-concentrator photovoltaics, which has the potential to revolutionize the way multi-junction solar cells are incorporated into photovoltaic modules. The talk will conclude by presenting some of the latest results from the laboratory toward developing a micro-concentrator solar panel capable of collecting direct and diffuse sunlight with very high efficiency, a project funded by an ARPA-E MOSAIC grant.

TIME:  4:00-5:00 pm, Thursday, February 7, 2019
(refreshments: 3:30 pm upstairs by the 4th floor pantry)

PLACE:  101 Corcoran Hall, GWU
725 21st Street, NW

METRO STATION:  GWU/FOGGY BOTTOM (BLUE & ORANGE LINES)