

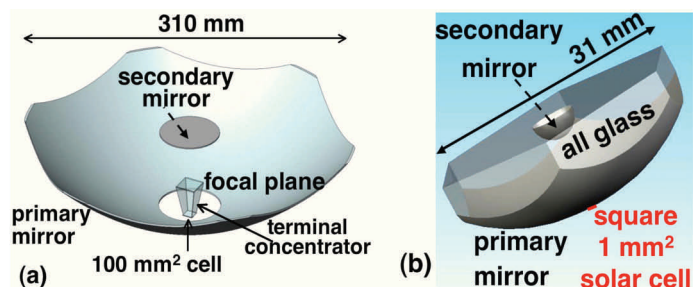
Concentrator Photovoltaics

Jeffrey M. Gordon

Wednesday, August 12th

Lecture at 2:00 PM
Light refreshments follow

Room E19-319
400 Main Street



Abstract

Unprecedented capabilities for ultra-efficient yet affordable solar electricity generation at high concentration stem from the confluence of progress in multi-junction photovoltaic technologies and advanced optical design. Several generations of new optics that approach the thermodynamic limit to concentration and optical tolerance, and have been tailored to the exigencies of the latest generations of concentrator solar cells, will be presented, some of which already comprise megawatt-scale installations. In addition, experimental results from novel localized irradiation probes that use ultra-intense concentrated sunlight for investigating concentrator solar cells will be reviewed. The findings include elucidating cell solid-state properties that are of value in designing future generations of higher-efficiency solar converters.

About the Speaker

Jeffrey M. Gordon is a professor in the Department of Solar Energy and Environmental Physics, Jacob Blaustein Institutes for Desert Research at Ben-Gurion University. He has done a broad range of work on light-assisted synthesis of nano-materials, the physics and characterization of ultra-efficient solar cells, PV concentration with miniaturized optics, optical concentration at the thermodynamic limit, illumination optics and radiometry, and ultra-high bioproductivity with algae.