

Advanced Topics in Electrophysics: Solar Energy Conversion

Description: This course is designed to provide a fundamental understanding of energy conversion processes from solar illumination. The beginning of the course will focus on traditional topics including photovoltaic solar cells and solar thermal devices. We will discuss thermodynamic limits, device physics, and the optics and photonics of such devices. The latter part course will focus on future generation techniques, including multijunction and multi-exciton generation, as well as more speculative conversion processes, such as rectifying antennas.

Prerequisites: Introductory level electromagnetism, device physics, and thermodynamics are strongly encouraged.

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Time/ MW 5-6:15pm
Location: Computer Science Instructional Center (CSI) 2107

