



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
COLLOQUIUM

Optoelectronic Devices for Sustainability

by



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Date: January 20, 2020 (Monday)

Time: 1:45 - 2:45 p.m.

Place: L4, Science Centre, CUHK

(Light refreshments will be served at [SCNB 1/F lobby](#) from 1:15 to 1:35 p.m.)

ALL INTERESTED ARE WELCOME

Abstract

Today's optoelectronic devices are based on crystalline inorganic materials, but their rigidity and negative environmental impacts caused by the way they are manufactured, used and disposed of call for the search for alternatives. The use of flexible, semi-transparent and eco-friendly organic materials that can be unobtrusively integrated with the environment is a promising route to meeting the growing needs of the world. In this talk, I will discuss recent advances in the development of organic optoelectronic devices for solar cell and photodetection applications. I will particularly highlight my recent works that use time-resolved optical methods to reveal the underlying charge separation mechanism that enables organic solar cells to operate close to the thermodynamic limit.