

[Scdt] SCDT-FlexE Centre Weekly Tuesday Seminar-23.11.2021 at 7:30 PM



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Zoom Meeting for joining the webinar:

<https://zoom.us/j/99863678964?pwd=ZVJvdFN5T1UyQjdZbmxwS0htRUJOUT09>

Meeting ID: 998 6367 8964

Passcode: 064022

Dear Colleagues,

I would welcome you to attend the SCDT-FlexE Centre Weekly Tuesday Seminar by Dr. Sambathkumar Balasubramanian from the FlexPV Team. The details of the seminar (to be given in webinar format) are given below.

Title: "Degradation effect related to hole transport layer and encapsulation in inverted Organic photovoltaic using ISOS protocols"

Date: 23rd November, 2021 (Tuesday)

Time: 7:30 PM to 8:30 PM

Presentation will be on zoom. The link is given above.

The seminar abstract and a brief bio of the speaker are given below. Please join the talk if you are in a position to do so.

With regards

S.K.I.

Abstract of talk by Dr. Sambathkumar:

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The power conversion efficiency (PCE) of organic solar cell (OSC) is constantly improving; however the stability of the device still requires significant improvement for the commercial success. Therefore it is important to understand the nature of degradation mechanism (intrinsic or extrinsic) occur in the different stacking of OSC device. Inverted P3HT:PCBM devices were subjected to various stress condition (shelf, thermal and light storage) using ISOS protocol. It is demonstrated that the degradation mechanism is related to the intrinsic stability of MoO<sub>3</sub> layer which has a significant impact on the device life time. Finally we demonstrated the importance of encapsulation by showing a comparative study on ITO free glass and paper device using different encapsulation.

About the Speaker:

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Dr. Sambathkumar Balasubramanian is working at the FlexE Centre and is a part of the FlexPV Team. He received his PhD degree in Chemistry from Central Leather Research Institute (CLRI), where he did polymer synthesis for OPV applications. His primary focus at FlexE Centre is on understanding the degradation mechanisms and improving stability in Organic Photovoltaic devices.

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