

OLED for display and lighting applications: current issues and future directions

Bernard Geffroy

▶ To cite this version:

Bernard Geffroy. OLED for display and lighting applications: current issues and future directions. 8TH SCHOOL ON ORGANIC ELECTRONICS: NANO-ORGANICS AND DEVICES, Jul 2016, Paris, France. cea-02349582

HAL Id: cea-02349582 https://cea.hal.science/cea-02349582

Submitted on 5 Nov 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

OLED for display and lighting applications: current issues and future directions

Bernard Geffroy*1

¹Laboratoire d'Innovation en Chimie des Surfaces et Nanosciences (LICSEN) – CEA Saclay – NIMBE, CEA, CNRS, Université Paris-Saclay, CEA Saclay 91191 Gif-sur-Yvette Cedex,, France

Abstract

Organic Electronics have received a lot of attention during the last years and advancements are leading to commercial products. Organic Light-Emitting Diodes (OLEDs) have already entered the mass production market in small size displays (smart phones, ...) or larger area display devices for OLEDtelevisions. However, the request in the market continues to grow for low-power, low-cost and flexible devices. OLEDs have also shown a great potential for lighting applications and worldwide research is ongoing to create high-brightness, high efficiency and long life white OLEDs for lighting. This presentation will give an introduction to OLED operation mechanisms and review recent insights into OLEDs materials, device structures and manufacturing processes. Some recent results from our group on the use of new host materials and TADF emitters will be presented.

^{*}Speaker