Work package number	3		Start Date or Starting Event	M1
Work package title	Photo-physical Characterisation			
Participant number	1	2	3	**4**	5
Short name of participant	Merck	MOD	IOF	**UDUR**	INT
Person/months per participant:	8	0	8	**54**	0

Objectives

Objective 3.1: Elucidate the photo-physics of shielded emitters including full energy level determination, fluorescence efficiencies and the effect of shielding structure and strategies on the emitter efficiency in regard to excitation and charge quenching.

Objective 3.2: Determine the photo-physical and energetic characteristics of each new TADF host material to aid proper design of hosts that efficiently couple to a dopant emitter, including detailed understanding of the host [illegible]perties in an environment of other host molecules.

Objective 3.3: Elucidate the mechanisms of energy and electron transfer between a TAD[illegible] emitter so that only singlet states can be harvested by the fluorescence emitter at near 100% effi[illegible]

Objective 3.4: Determine the effects of anisotropic orientation on FRET coupling b[illegible] emitters along will possible use of microcavity effects to enhance FRET energy transfer rates b[illegible]

One task for each objective i.e. Objective 3.1 maps to Task 3.1, etc.

Description of work

This WP will provide full photo-physical characterisation of materials from WP1 and WP2 a[illegible] well as collaborate with WP4 to optimise guest host hyperfluorescence emitter layer structures.

Task 3.1 Elucidate photo-physics of shielded emitters (Task Leader: UDUR; Support: Merck and IOF)
The main aim of this task is to design and undertake measurements to determine the efficiency of shielding an excitation on a shielded emitter to other excitations and charges in an OLED context. This will involve;

Etc ….

Task 3.2 Determine photo-physical and energetic characteristics of TADF hosts (Task [illegible]der[illegible]ort: Merck and IOF)
As described in the state-of-the-art section, the host ‘environment’ in terms of polarisabilit[illegible]nt role in the photo-physical and energetic characteristics of any TADF material, thus to properl[illegible]y couples to a dopant emitter, careful characterisation of any host must be made.

Etc ...

Try to use the *imperative verb form* e.g. elucidate, determine, ...

Task 3.3 Elucidate energy and electron transfer mechanisms (Task Leader: UDUR; Supp[illegible] Me[illegible]ck and IOF)
As described in the state-of-the-art section, the host ‘environment’ in terms of polarisability and polarity play an important role in the photo-physical and energetic characteristics of any TADF material, thus to properly design a host that efficiently couples to a dopant emitter, careful characterisation of any host must be made.

Etc …

Task 3.4 Determine microcavity and orientation effects on energy transfer (Task Leader: UDUR; Support: Merck and IOF)
Given that in a device various strengths of microcavities can be employed along with anisotropic orientation of emitters to improve outcoupling, the microcavity and orientational effects on energy transfer processes must be evaluated.

Etc …

Deliverables

D3.1: Report on TADF host tuning by the bulk host (UDUR, M12)
D3.2: Report on the photo-physics of first generation shielded emitters (UDUR, M24)
D3.3: Report on improved shielding strategies (UDUR, M30)
D3.4: Report on energy and electron transfer in TADF host shielded emitter guest s[illegible]
D3.5: Report on microcavity effects on energy transfer in OLEDs (UDUR, M36)

Distribute deliverables evenly over the project ...