## **Electronic supplementary information**

## Transition dipole moment orientation in films of solution processed fluorescent oligomers: investigating the influence of molecular anisotropy<sup>+</sup>

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Fig. S1. Refractive index and extinction coefficient of TPBi



**Fig. S2.** Normalized absorption spectra of OPV*n* molecules in 2-methyltetrahydrofuran solution at room temperature.



**Fig. S3.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV2 (10 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.43$  and film thickness 40 nm.



**Fig. S4.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV3 (10 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.43$  and film thickness 40 nm.



**Fig. S5.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV4 (10 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.40$  and film thickness 40 nm.



**Fig. S6.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV5 (10 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.37$  and film thickness 40 nm.



**Fig. S7.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV6 (2 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.32$  and film thickness 40 nm.



**Fig. S8.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV6 (10 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.27$  and film thickness 40 nm.



**Fig. S9.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV7 (2 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.34$  and film thickness 40 nm.



**Fig. S10.** Experimental angular dependence of the *p*-polarised fluorescence intensity for a solution processed TPBi/OPV7 (10 wt.%) layer (solid circles) compared to simulated profile with  $\theta_v = 0.20$  and film thickness 40 nm.