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Light-induced generation of free radicals by fullerene derivatives: an

important degradation pathway in organic photovoltaics?

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Fig. S1. Photograph of the sample stage for outdoor aging of organic solar cells and thin films sealed between the glass plates or inside the glass tubes.



Fig. S2. Evolution of the V_{OC} (a), J_{SC} (b), FF (c) and PCE (d) of the devices as a function of the sunlight exposure time.



Fig. S3. AFM images of the PCDTBT/[60]PCBM, PCDTBT/**F1** and PCDTBT/**F2** blend films before and after illumination at 60 °C for 40 h.



Fig. S4. GPC profiles of the PCDTBT/[60]PCBM (a) and PCDTBT/**F2** (b) blends before and after exposure to the sunlight (the PCDTBT peak at 5-6 min is not shown).



Fig. S5. Evolution of the UV-VIS spectra of the PCDTBT/[60]PCBM (a), PCDTBT/F1 (b) and PCDTBT/F2 (c) blends under exposure to the sunlight.