IQTS peak located at about 50 μs and voltammetric wave at about -1.5V. There is a clear two-step increase of this wave and shift in the IQTS peak position.

Steady-state voltammetry offers I-V characteristics, where the presence of electrically active centre (defect) is detected by the presence of voltammetric wave, which amplitude is proportional to the concentration of this centre. Voltammetric wave definitely reveals the presence of redox centers, i.e. electrically active traps. It means that in PMPSi some deep centers (continuum, corresponding to tail of IQTS spectra) decays and a shallower one arises. The increasing current wave near the potential of + 0.8 V depicted in Fig. 3 corresponds to evolution of a defect center in PMPSi caused by the exposure of the PMPSi to UV irradiation, which mediates charge transfer through redox reaction. On the other hand, the process at about – 0.5 V (observed on both the voltammetric and voltcoulometric signals) can be regarded as drop-out of other redox centre in PMPSi matrix after 5-minute exposition to UV irradiation + ozone. This process is accompanied with more effective hole injection. In the case of MEH-PPV, voltammetric wave at -1.5 V indicates a redox centre (trap). The IQTS peak position at 50 μs supposes relatively shallow trap. The determination of the activation will require IQTS measurements at several temperatures.

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