Synthesis of Polymer/Inorganic Nanocomposite Films using Highly Porous Inorganic Scaffolds

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Enclosure: Three figures
**Fig. S1** The morphology/structure evolution of the polycyanoacrylate/SnO₂ composite films: a) 10 min, b) 30 min, c) 60 min, d) 120 min and e) 180 min. The shown SEM images were recorded at the film/glass interface region for each sample.
Effects of refreshing the monomer reservoir on the nanocomposite film growth: refreshing twice the monomer reservoir during the polymerization process results in a thicker (57 μm) nanocomposite film than that obtained without refreshing the monomer reservoir (48 μm). Note that the two SnO₂ layers were prepared here with a larger nozzle-to-substrate distance (25 cm, as compared with 20 cm to prepare layers reported in Fig. 4). The larger distance results in a thinner SnO₂ scaffold layer, and subsequently, leads to a thinner composite film in this figure (sample (b), 48 μm) than that reported in Fig. 4b.
Fig. S3 Powder XRD patterns of the undoped and 1wt% Sb-doped SnO$_2$ samples (color in electronic file).