**Fig. 4:** (a)Impedance response of P3HT: PCBM solar cell; as cast and thermally annealed at various temperatures, at a sample bias of 0.5 V (i.e., around *V*oc) and under 1 sun illumination. The solid lines represent the fits to equivalent circuit model, (b) Comparison between equivalent circuit model fittings to experimental impedance data.

**(a)**



**(b)**