

**Figure 3.** Variation of the measured sheet resistance ( $\rho_s$ ) as a function of the amount of silver nitrate printed ( $\omega$ ). The sharp decline in sheet resistance between the first two data points indicates the presence of a critical threshold value for silver nitrate loading ( $\omega_c$ ) to form a percolating conductive network. The inset shows a log-log plot of the sheet resistances as a function of reduced silver nitrate loading (i.e. silver nitrate loading normalized with respect to the critical value). Only data points beyond the threshold are considered in the inset plot. The points represent the measured data while the curves represent a model fit (based on a non-linear curve fit) to the equation based on percolation theory. The model used as well as the estimated parameter values (mean  $\pm$  standard error) for critical loading and scaling exponent are shown.