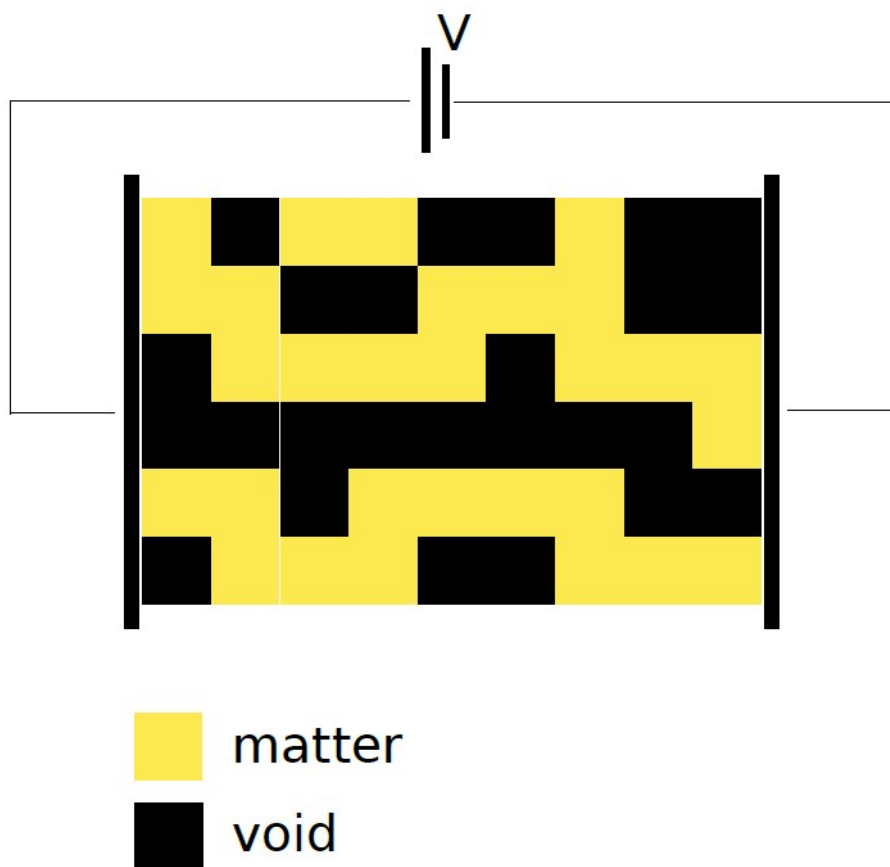
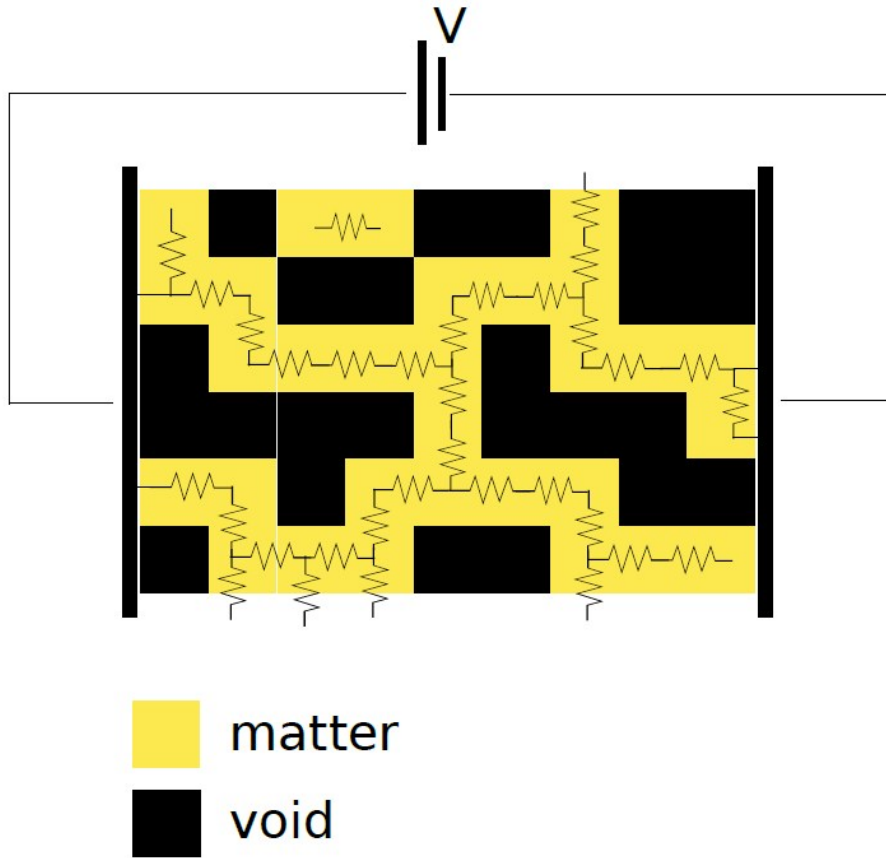


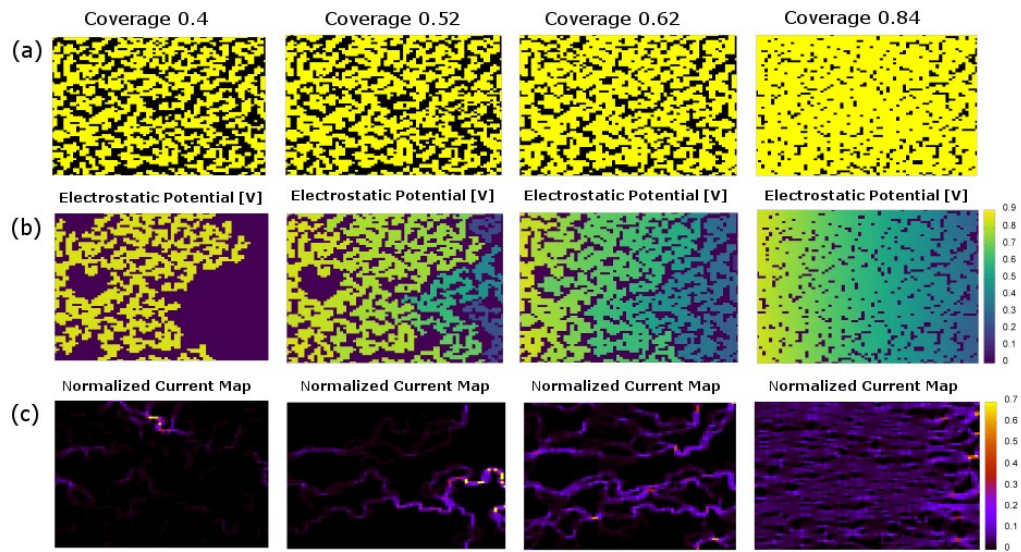
Supplementary information



Scheme S.1: grid model of the simulated samples extracted from a SEM image. Yellow bonds correspond to the parts of the SEM image of the samples with deposited clusters; the black ones correspond to a void (absence of the deposited clusters).



Scheme S.2: electric circuit model corresponding to the granular one extracted by the SEM images; the yellow squares (deposited materials) are replaced with a conductive element with a certain electrical resistance.



Scheme S.3: binarized original SEM images (yellow corresponds to deposited materials, black to voids) with different coverage fraction (a) and the corresponding voltage (b) and current map (c) obtained from the equivalent electric resistance networks model for the different coverage values.