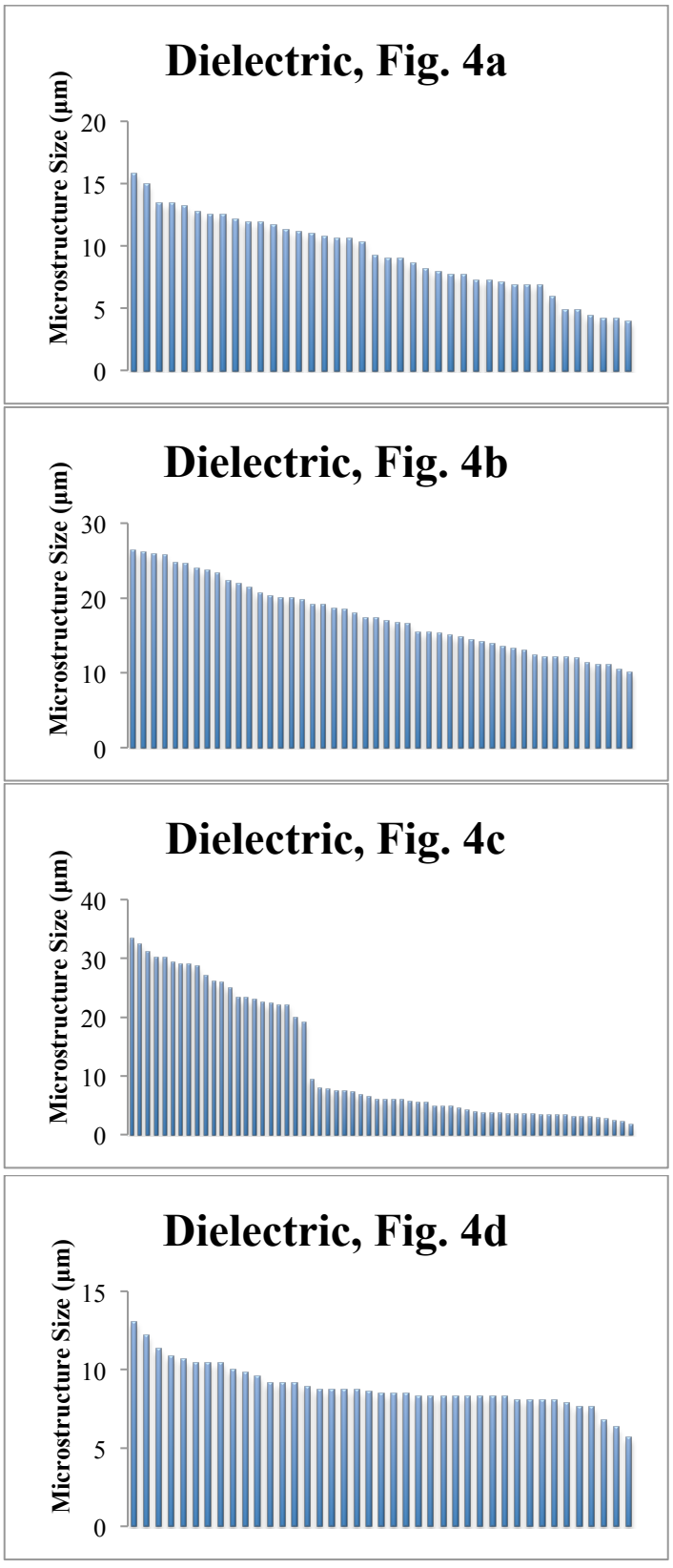

Figure S1. Histograms showing the distribution of microstructure diameters for samples of 40, 48, 62, and 41 domes from the dielectrics in the sensors shown in Figures 4(a), 4(b), 4(c), and 4(d), respectively.

The four histograms above show the diameters of a selection of domed microstructures (between 40 and 62), arranged from largest to smallest, from the dielectric layers of the sensors whose pressure response curves are presented in Figure 4. Thus, the histograms, viewed from left to right, represent which microstructures would be compressed as applied pressure is increased. It is easy to see that the sensors in Figures 4(a) and 4(b) have irregularly sized microstructures, with a relatively even distribution of microstructures throughout the range of sizes, which are larger for the latter. However, size does not have a significant effect on the sensors' performance, influencing their capacitance but not their change in relative capacitance, while uniformity, aspect ratio and packing density do, as is described in the main text of the article. For the sensor in Figure 4(c), there is clearly a bimodal distribution of microstructure sizes, with the larger ones compressed first, followed by the smaller ones. Finally, for the sensor in Figure 4(d), the large majority of the microstructures are highly uniform, with diameters falling in the narrow range of 7-9 μm.