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## Supporting information

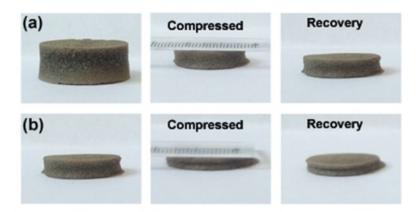


Figure S1 The compression-recovery processes of GOF.

Figure S1 shows the photographs of as-prepared GOF with different pressures, we can see that the compressed GOF can hardly recover after relaxation for 48 hours. Then the dielectric properties of the original GOF and compressed GOF are measured as shown in Figure S2, we can see that both the dielectric constant and dielectric loss increase a little because the increase of  $D/D_{max}$  for the compressed GOF is very small. In conclusion, the 3D structure is still stable after compression.

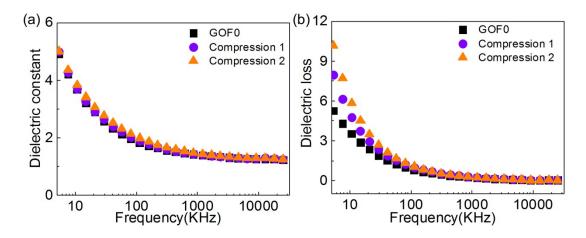


Figure S2 The dielectric properties of the compressed GOF.

The dielectric properties at different humidity are also measured because the humidity has a great impact on the variable dielectrics as shown in Figure S3. The dielectric properties of the GOF are measured at the normal humidity and increased humidity. Then the dielectric property of the GOF which is dried in the oven is measured as a comparative experiment. Both the dielectric constant and dielectric loss increase at the increased humidity and the properties are back to normal when the sample is dried. It is mainly due to the theory or the mechanism is based on dipole alignment.

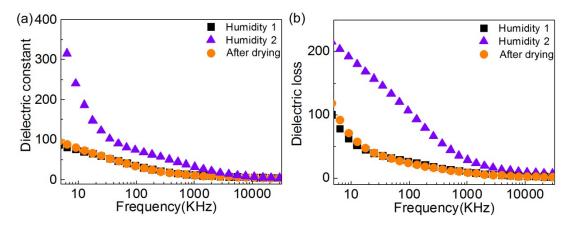


Figure S3 The dielectric properties at different humidity of the GOF.