Resistance Response of Cellulose/rGO (8 wt%) Aerogel to Saturated Methanol Vapour at Room Temperature During Long Term Exposure

As shown in Figure S1, the resistance response of cellulose/rGO (8 wt%) aerogels to saturated methanol vapour at room temperature can reach a plateau after about 1000 s of exposure. The recovery from this state is rather fast and is almost complete after 200 s. For better comparison with other vapours and evaluation of vapour sensitivity in shorter times, each vapour/dry air cycle is performed by an exposure interval of 400 s followed by a recovery interval of 200 s in dry air.

Figure S1. The electrical resistance change of cellulose/rGO (8 wt%) aerogel during exposure to saturated methanol vapour (C\textsubscript{i} = 27.6%) at 25 °C and its recovery in dry air.
Structure of Cellulose

Figure S2. The chemical structure of cellulose.

Increased interaction between H-bond forming solvents and cellulose are expected due to the presence of OH-groups in each monomer unit, even if they are not easy accessible because of strong intramolecular hydrogen bridges.