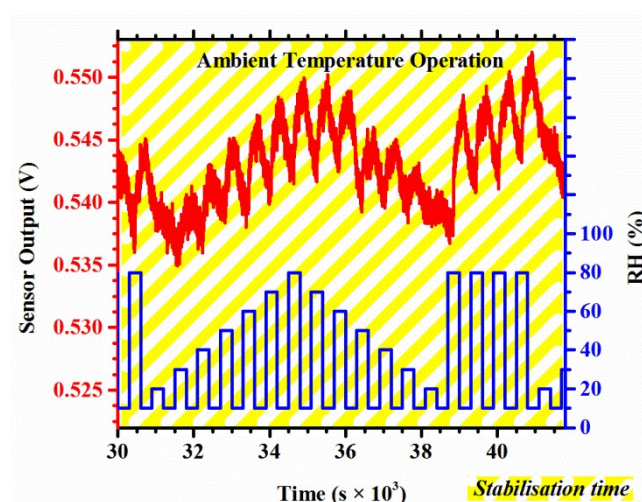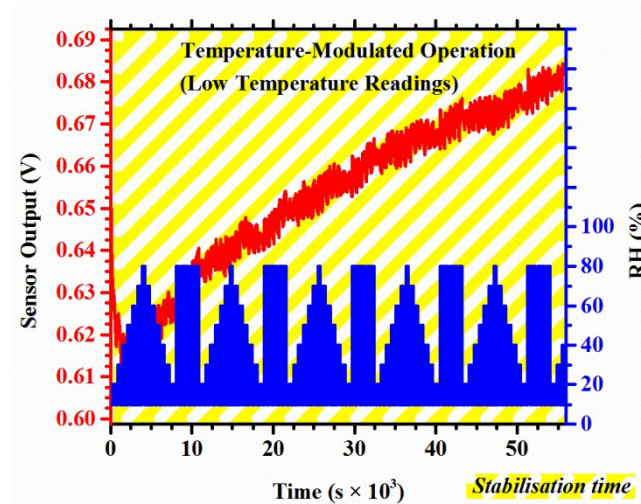# Temperature-Modulated Graphene Oxide Resistive Humidity Sensor for Indoor Air Quality Monitoring

A. De Luca, S. Santra, R. Ghosh, S. Z. Ali, J. W. Gardner , P. K. Guha, and F. Udrea
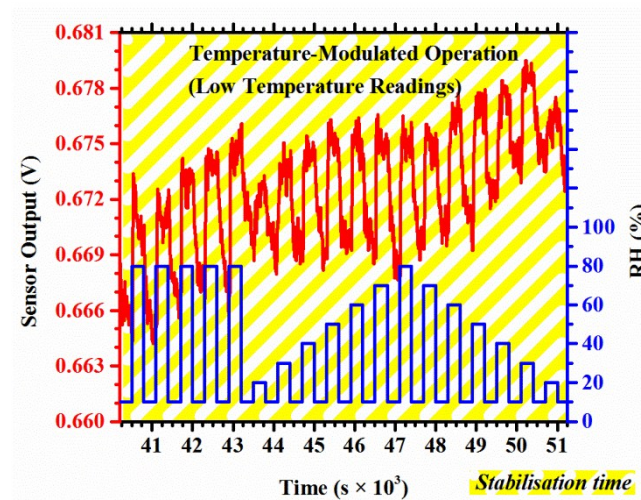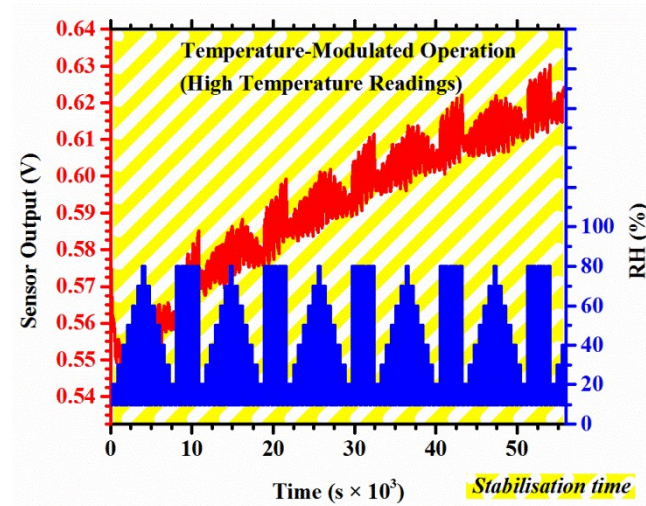
Supplementary material

S1*: Ambient temperature operation: humidity sensor output as a function of time for different RH levels. (Enlargement of **Fig. 3a**).

S2: Temperature-modulated operation: humidity sensor output as a function of time for different RH levels. (Only the low temperature readings, $V_{25\ °C}$, are considered as sensor output).
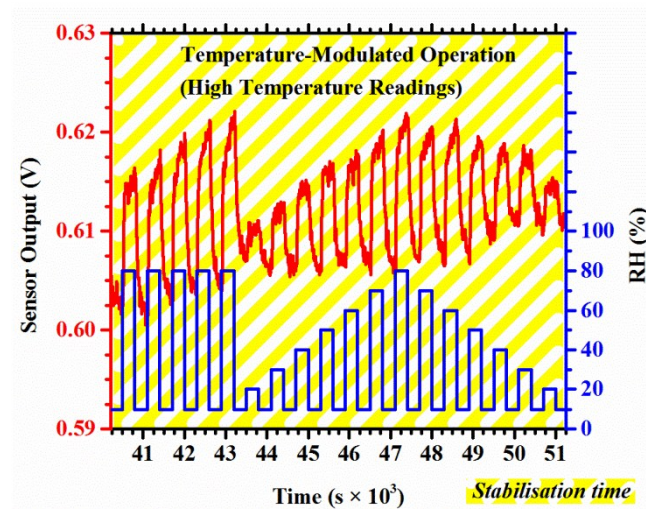

S3: Temperature-modulated operation: humidity sensor output as a function of time for different RH levels. (Only the low temperature readings, $V_{25\ °C}$, are considered as sensor output, enlargement of **S2**)
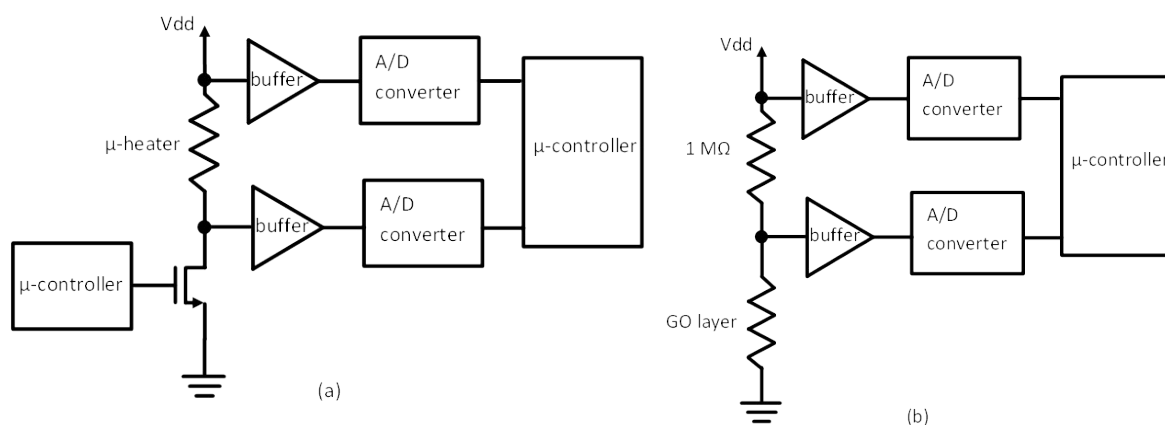
S4: Temperature-modulated operation: humidity sensor output as a function of time for different RH levels. (Only the high temperature readings, $V_{50\,°C}$, are considered as sensor output)
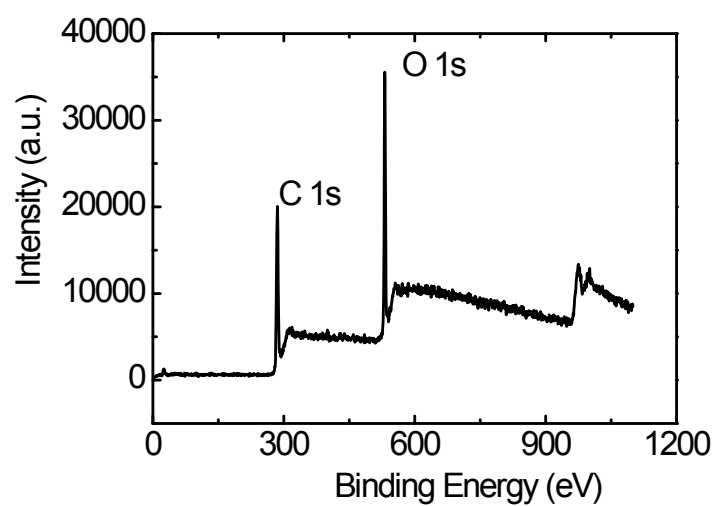

S5: Temperature-modulated operation: humidity sensor output as a function of time for different RH levels. (Only the high temperature readings, $V_{50\,°C}$, are considered as sensor output, enlargement of **S4**)

S6: Schematic diagrams depicting (a) micro-heater driving circuit and (b) GO layer readout circuit, implemented on PCB.

S7: XPS surface survey of GO.