



Journal Name

ARTICLE

Flexible wearable humidity sensor based on cerium oxide/graphitic carbon nitride nanocomposite self-powered by motion-driven alternator and its application for human physiological information detection

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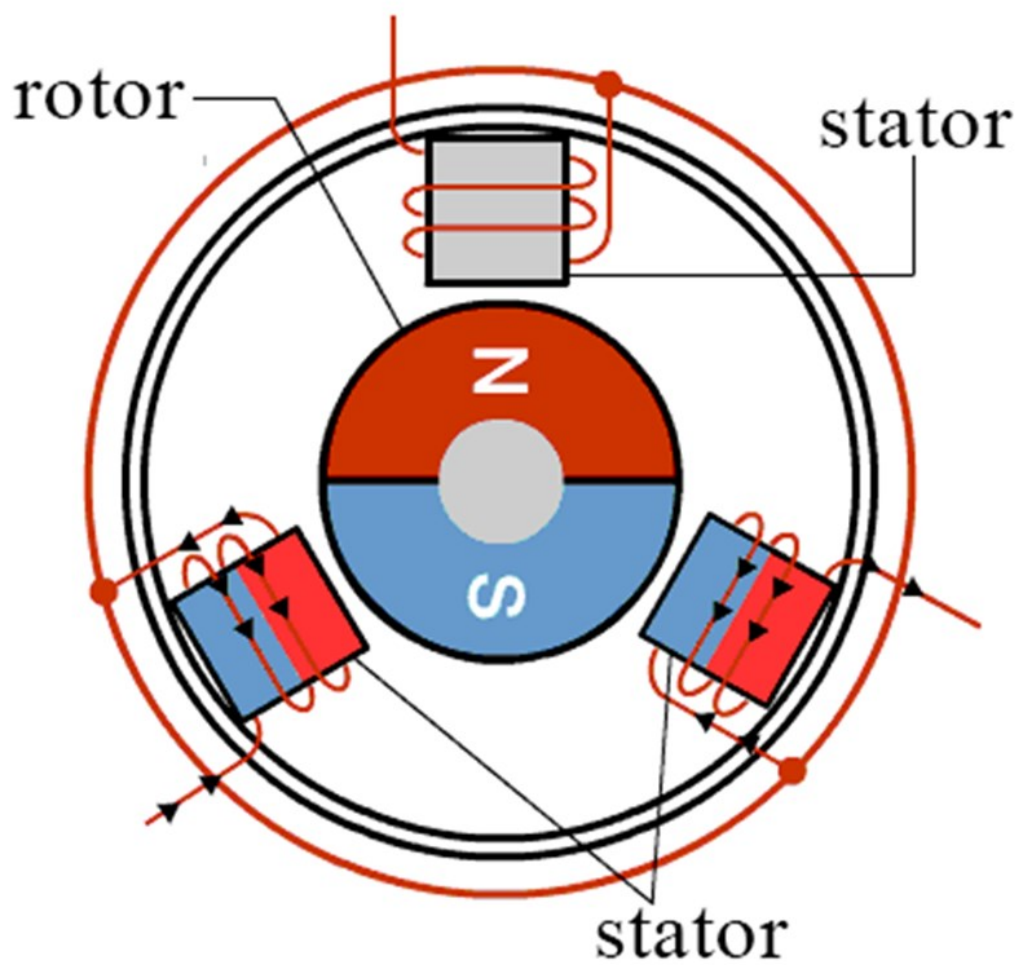


Figure S1. Generating principle of the generator, when the rotating machine rotates the rotor, the stator armature winding cuts the magnetic induction wire, and according to the law of electromagnetic induction, an induced electromotive force is generated in the coil.

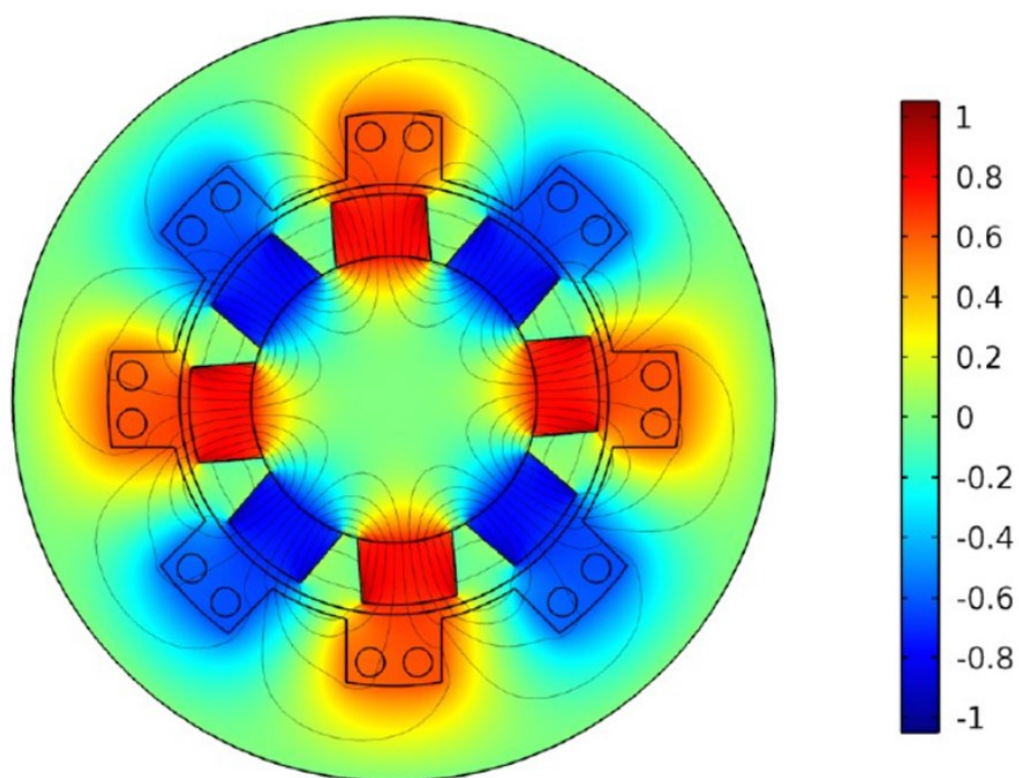


Figure S2. The COMSOL simulation effect for the rotor rotates. The COMSOL simulation diagram reflects the change of the magnetic flux in the stator and rotor when the generator is working.

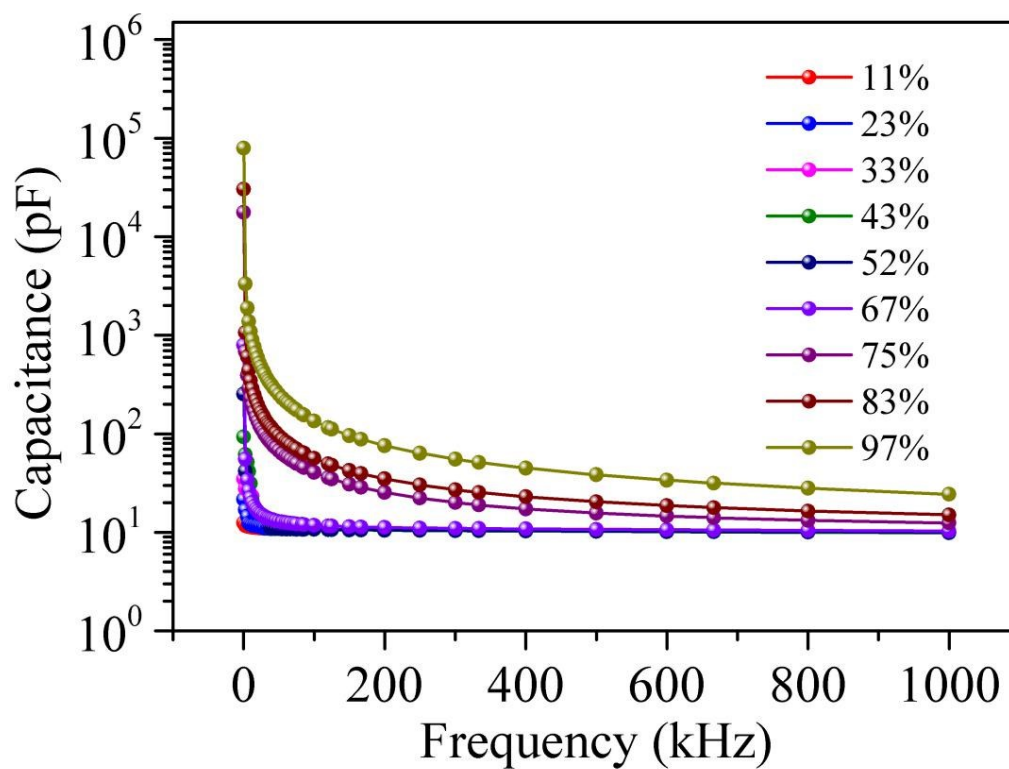


Figure S3. The capacitance-frequency response of the CeO₂/g-C₃N₄ hybrid humidity sensor.

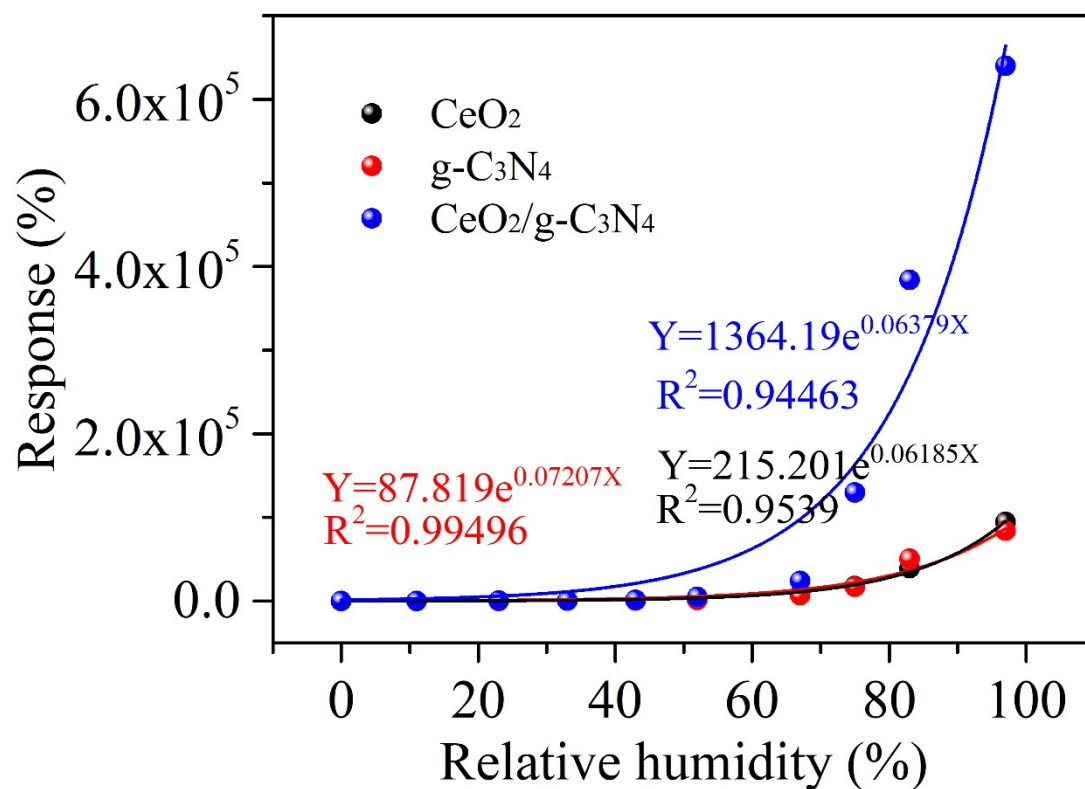


Figure S4. Exponential function curve of capacitance value (Y) and RH level (X) of $\text{CeO}_2/\text{g-C}_3\text{N}_4$ hybrid film sensor.

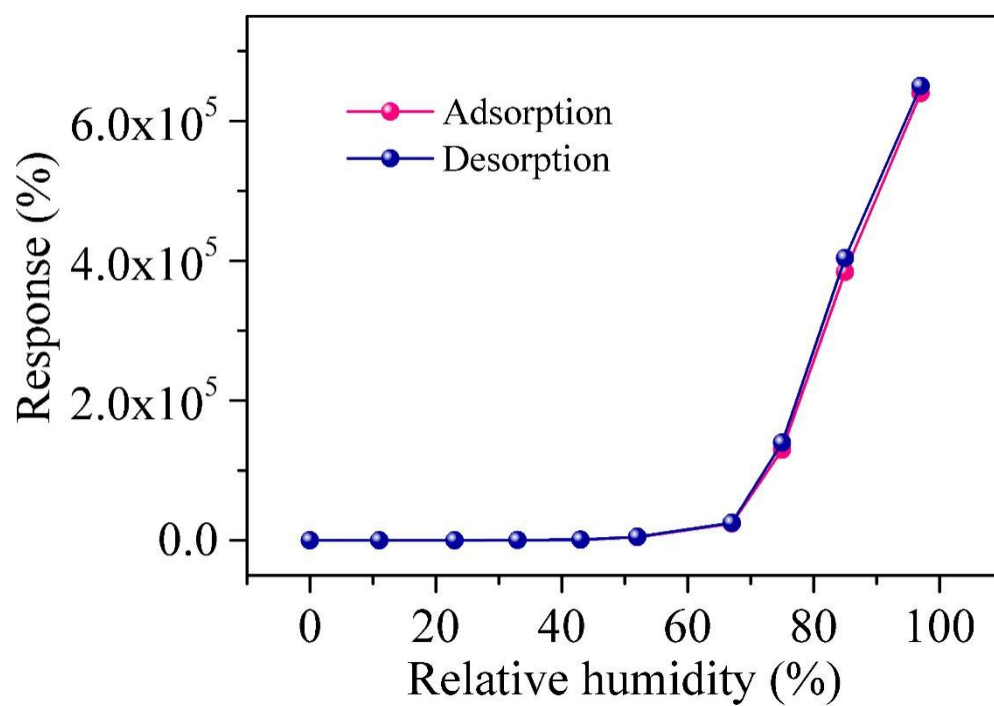


Figure S5. The hysteresis of the $\text{CeO}_2/\text{g-C}_3\text{N}_4$ hybrid sensor during the humidity increase and decrease processes.