

Supporting Information for
**Brookite TiO₂ decorated α -Fe₂O₃ Nanoheterostructures
with Rod Morphologies for Gas Sensor Application**

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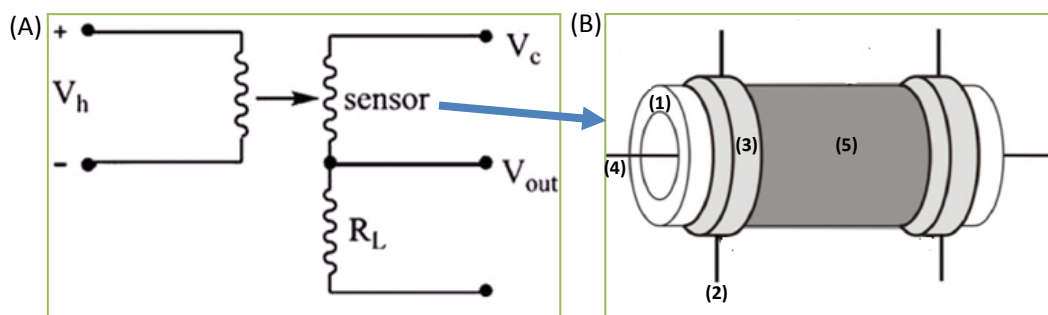


Figure S1. (A) Working principle of gas sensor test. V_h : Heating voltage; V_{out} : Output signal voltage; V_c : Test circuit voltage; R_L : Load resistance. (B) Construction of gas sensor. (1) Alumina tube; (2) Pt wire; (3) Au electrode; (4) Ni-Cr alloy heater; (5) Sensing film.

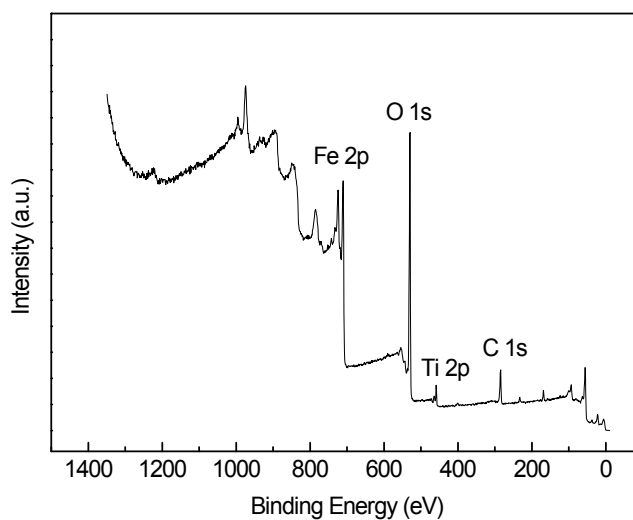


Figure S2. Survey XPS spectrum of the obtained $\text{TiO}_2/\alpha\text{-Fe}_2\text{O}_3$ nanoheterostructures