Supplementary Information

Visible Light-Driven *p*-Type Semiconductor Gas Sensors Based on $CaFe_2O_4$ Nanoparticles †

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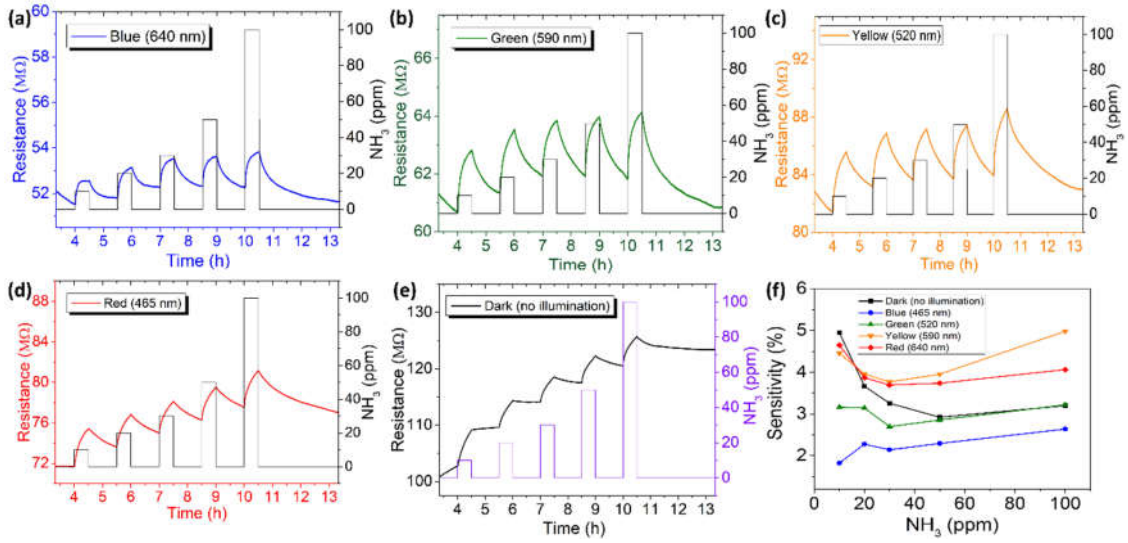

Figure S1. Dynamic responses of $CaFe_2O_4$ towards NH_3 reducing gas in varied vapor concentrations (i.e., 10, 20, 30, 50, and 100 ppm) under light activation from (**a**) blue (465 nm), (**b**) green (520 nm), (**c**) yellow (590 nm), (**d**) red (640 nm) LEDs and (**e**) in dark condition (without illumination). (**f**) Comparison of the sensor sensitivity under visible light exposures and dark condition for NH_3 sensing.

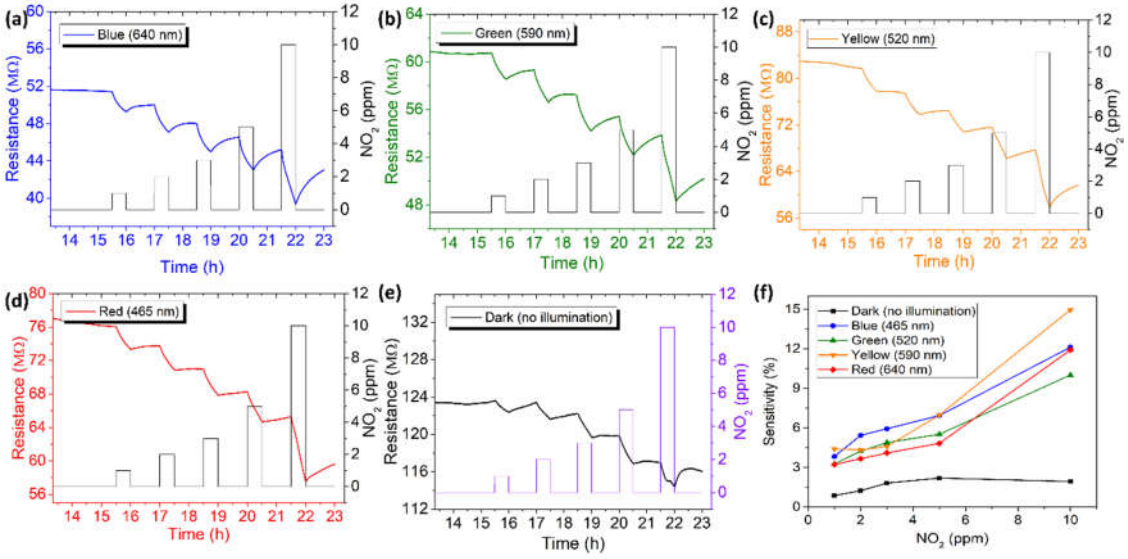

Figure S2. Dynamic responses of $CaFe_2O_4$ towards NO_2 gas in varied vapor concentrations (i.e. 1, 2, 3, 5, and 10 ppm) under light activation from (**a**) blue (465 nm), (**b**) green (520 nm), (**c**) yellow (590 nm), (**d**) red (640 nm) LEDs and (**e**) in dark condition (without illumination). (**f**) Comparison of the sensor sensitivity under visible light exposures and dark condition for NO_2 sensing.