Supporting Information

Room temperature NO₂ sensing: What advantage does the rGO-NiO nanocomposite have over the pristine NiO?

Jian Zhang a, Dawen Zeng a,*, Shiqian Zhao b, Jinjin Wu a, Keng Xu a, Qiang Zhu a, Guozhu Zhang a and Changsheng Xie a

a State Key Laboratory of Materials Processing and Die Mould Technology, Huazhong University of Science and Technology (HUST), No. 1037, Luoyu Road, Wuhan 430074, China
b Aviation Key Laboratory of science and Technology on Precision Manufacturing, P. O. Box 2559, Beijing 100076, China.

* To whom correspondence should be addressed. Tel.: +86-027-87559835; Fax: +86-027-87543778. E-mail address: dwzeng@mail.hust.edu.cn (D. Zeng).
Fig. S1 Dynamic response-recovery curves of the pristine NiO (a) and the rGO-NiO (b) at different NO$_2$ concentration of 0.25 ppm, 0.50 ppm, 0.75 ppm and 15 ppm of 0.25 ppm, 0.50 ppm, 0.75 ppm and 15 ppm. The insert of (b) shows the magnified time-response curves of the rGO-NiO at the concentration of 0.25 ppm, 0.50 ppm and 0.75 ppm.
Fig. S2

The real recovery times of the NiO and the rGO-NiO nanocomposite obtained from the fitting data and the experimental data in Fig. S1.
Fig. S3

The fitted time constants for each cycling response curves of the pristine NiO and the rGO-NiO in Fig. 10.
Fig. S4

The dynamic response-recovery curves of (a) the pristine NiO and (b) the rGO-NiO nanocomposite to 15 ppm NO$_2$ at different humidity.