Supporting Information

Graphite nanoparticle as nanoquecher for 17β-estradiol detection using shortening aptamer sequence

Xiaoli Qi[a], Hui Hu[a], Yuesuo Yang[a,b], Yunxian Piao[a,*]

a Key Laboratory of Ground Water Resources and Environment of the Ministry of Education, Department of Environmental Engineering, College of Environment and Resources, Jilin University, 2519 Jiefang Road, Changchun 130021, China

b Key Laboratory of Eco-restoration of Regional Contaminated Environment, Ministry of Education, Shenyang University, 110044, China

***Corresponding author:** Professor Yunxian Piao

Key Laboratory of Ground Water Resources and Environment of the Ministry of Education, College of Environment and Resources, Jilin University, 2519 Jiefang Road, Changchun 130021, China

E-mail: yxpiao@jlu.edu.cn, Phone: +86-18604414674, Fax: +86-431-8850-2606

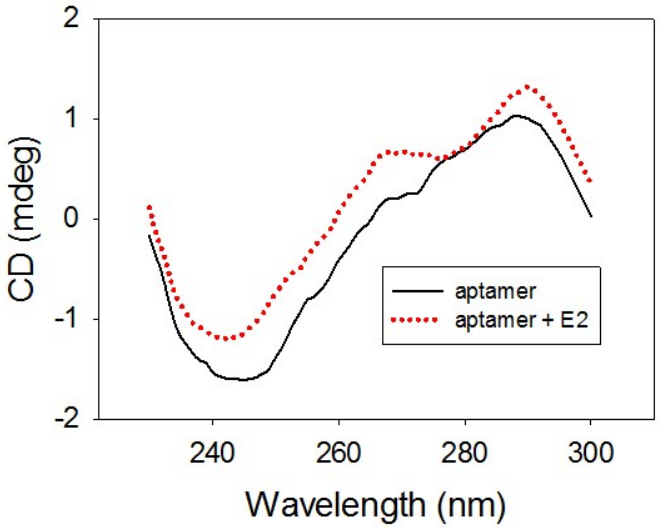

Fig. S1 The CD spectra of E2 aptamers (2.5 μM) before and after capturing of E2 (10 μg/mL).

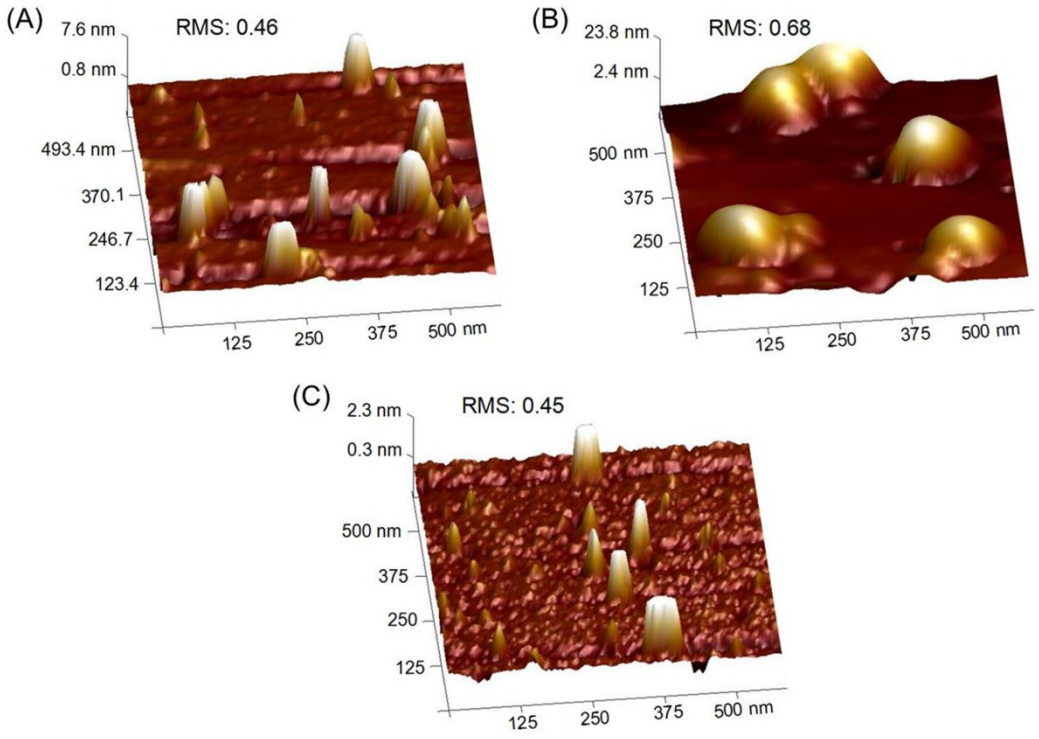

Fig. S2 3D AFM images of GN (A), GN/aptamer (B) and GN/aptamer after capturing E2 (C), respectively.

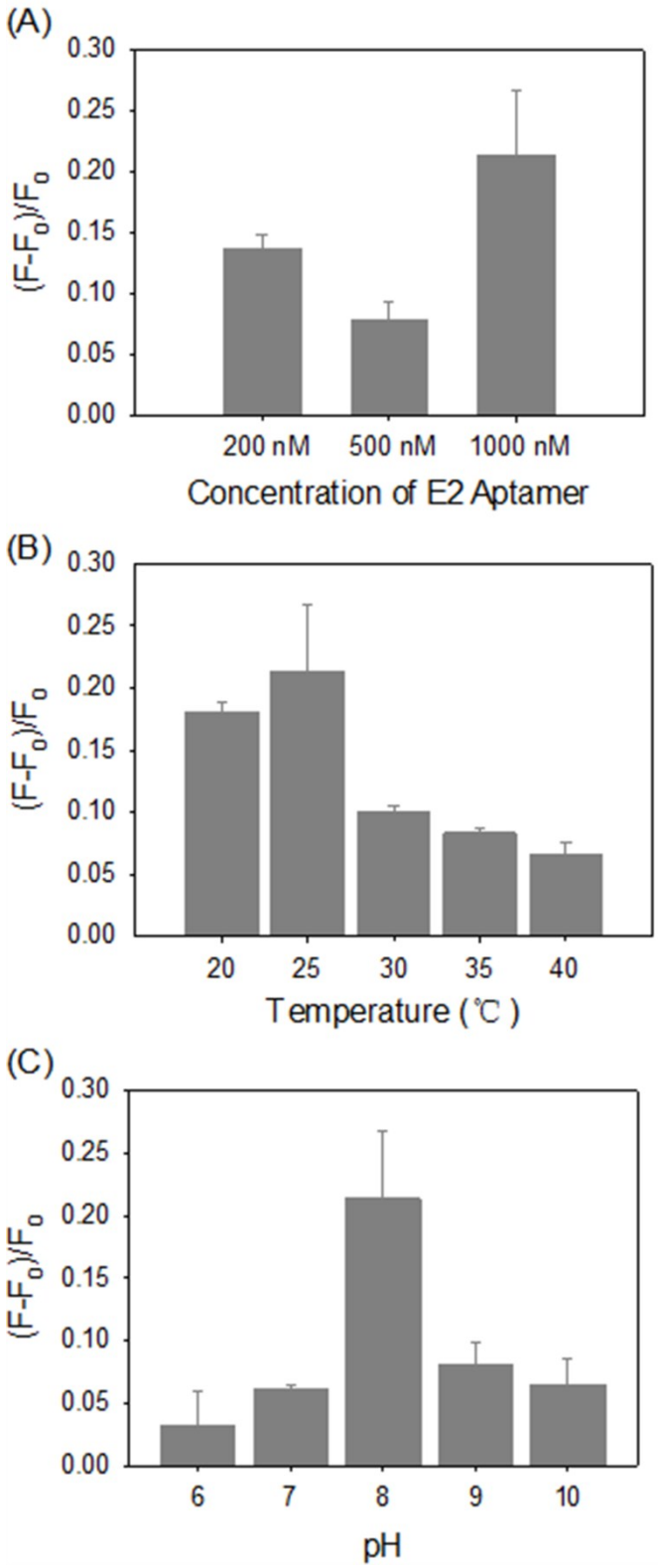

Fig. S3 Influence of the relevant experimental factors on the change of fluorescence signal in E2 (50 ng/mL) sensing with GN/aptamer: (A) effect by concentration of aptamer, (B) effect by temperature, (C) effect by pH values. The error bars were obtained from triplicate experiments.

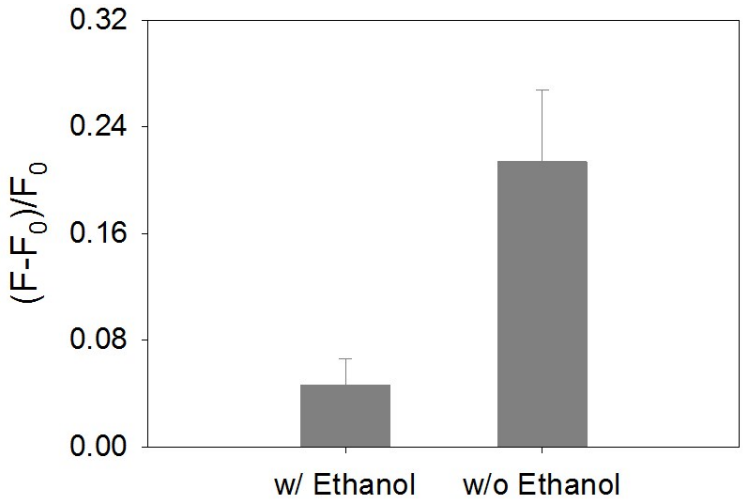

Fig. S4 Effect of the organic solvent on the fluorescent intensity.