New Journal of Chemistry

## Support Information

Novel Fluorescence Resonance Energy Transfer Optical Sensors for Vitamin B12 Detection using Thermal Reduced Carbon Dots

Jilong Wang,<sup>a</sup> Junhua Wei,<sup>a</sup> Siheng Su,<sup>a</sup> and Jenny Qiu\*<sup>a</sup>

<sup>a</sup> Department of Mechanical Engineering, Texas Tech University, 2500 Broadway, P.O. Box 43061, Lubbock, TX 79409, United States \*Corresponding Author: E-mail: Jenny.Qiu@ttu.edu

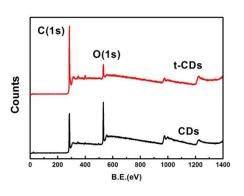


Figure S1. XPS spectra of CDs and t-CDs

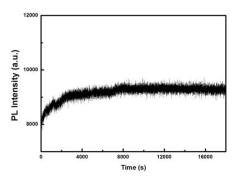
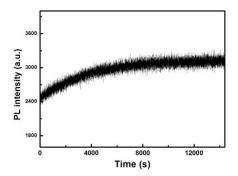
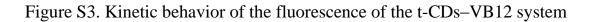


Figure S2. Photostability of t-CDs





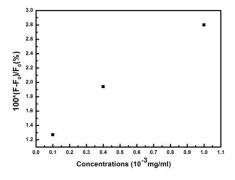


Figure S4 the plot of calibration graph for the efficiency of FRET process vs. concentration

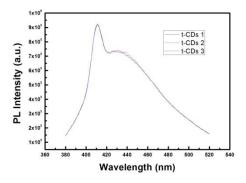


Figure S5 Standard Deviation of t-CDs (0.36%)

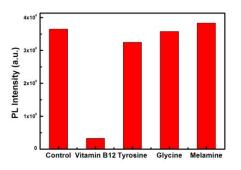


Figure S6 t-CDs with 100  $\mu$  g/ml different chemicals