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## **Supporting Information for:**

Three-dimensional direct visualization of silica dispersion in polymer-based composites

Zemin Feng,<sup>a</sup> Jinpan Zhong,<sup>a</sup> Weijiang Guan,<sup>a</sup> Rui Tian,<sup>\*a</sup> Chao Lu<sup>\*a</sup> and Caifeng Ding<sup>b</sup>

<sup>a</sup>State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing 100029, China

<sup>b</sup>State Key Laboratory of Sensor Analysis of Tumor Marker, Qingdao University of Science and Technology, Qingdao 266061, China.

\*E-mail: tianrui@mail.buct.edu.cn, luchao@mail.buct.edu.cn



**Fig. S1** UV–Vis absorbance spectra of SiO<sub>2</sub>, APTES-modified SiO<sub>2</sub> and FITC@APTES-modified SiO<sub>2</sub> powder.



**Fig. S2** Fluorescence spectra of FITC@APTES-modified SiO<sub>2</sub> in the presence of different FITC amount.



Fig. S3 Fluorescence intensity of FITC@APTES-modified SiO<sub>2</sub> at different temperature.



Fig. S4 SEM images of (A) SiO2, (B) APTES-modified SiO2, and (C) FITC@APTES-modifiedSiO2powder.



Fig. S5 SEM images on cross sections of (A) FITC@APTES-modified SiO<sub>2</sub> and (B) APTESmodified SiO<sub>2</sub> (3%) silicone composites.



Fig. S6 The comparison of CLSM and SEM images on a cross section of FITC@APTESmodified SiO<sub>2</sub> (3%) silicone composite.