Supporting Information

Visible-light-responsible reduced graphene oxide/g-C₃N₄/TiO₂ composite nanocoating for photoelectric stimulation of neuronal and osteoblastic differentiation

Ziru Yan^{1, 2}, Kai Li^{1, 2*}, Dandan Shao^{1, 2}, Qingyi Shen³, Yi Ding¹, Shansong Huang¹,

Youtao Xie^{1, 2}, Xuebin Zheng^{1, 2*}

¹Key Laboratory of Inorganic Coating Materials CAS, Shanghai Institute of Ceramics,

Chinese Academy of Sciences, Shanghai, China

²Center of Materials Science and Optoelectronics Engineering, University of Chinese

Academy of Sciences, Beijing, China

³Department of Stomatology, Huashan Hospital, Fudan University, Shanghai, China

*Email address: likai@mail.sic.ac.cn, xbzheng@mail.sic.ac.cn



Fig. S1 XPS spectra for C 1s of the GO powder and the rGO/TiO₂ nanocoating.



Fig. S2 XPS survey spectrum of the CN/TO nanocoating.



Fig. S3 EDX elemental mappings of rGO/CN/TO.



Fig. S4 MC3T3-E1 cell responses on various nanocoatings after 1 d incubation.



Fig. S5 Surface wettability of the samples.



Fig. S6 (A) Adsorption amount and (B) exposed RGD sites of fibronectin on various samples with or without visible-light stimulation.

Sample	$Ti^{3+}/(Ti^{3+}+Ti^{4+})$	$Ti^{4+}/(Ti^{3+}+Ti^{4+})$	$O_{lat} / (O_{lat} + O_{ads})$	$O_{ads}/(O_{lat}+O_{ads})$
	[%]	[%]	[%]	[%]
TiO ₂	10.2	89.8	92.2	7.8
g-CN/TO	59.0	41.0	90.4	9.6
rGO/CN/TO	51.0	49.0	82.4	17.6

Table S1. XPS spectra fitting results of the TiO_2 , CN/TO and rGO/CN/TO nanocoatings.
