

Electronic Supplementary Information.

Anion Exchange Nanofiber Materials Activated by Daylight with a Dual Antibacterial Effect†

L. Plíštil,^{ab} P. Henke,^a P. Kubát,^c and J. Mosinger*^{ad}

^a Faculty of Sciences, Charles University in Prague, Hlavova 2030, 128 43 Prague 2, Czech Republic, phone: +420 221 951 255, e-mail: mosinger@natur.cuni.cz

^b Center of Applied Bioimplantology, Královské Vinohrady University Hospital, Šrobárova 1150/50, 100 34, Prague 10, Czech Republic.

^c J. Heyrovský Institute of Physical Chemistry, v.v.i., Academy of Sciences of the Czech Republic, Dolejškova 3, 182 23 Prague 8, Czech Republic.

^d Institute of Inorganic Chemistry, v.v.i., Academy of Sciences of the Czech Republic, 250 68 Řež, Czech Republic.

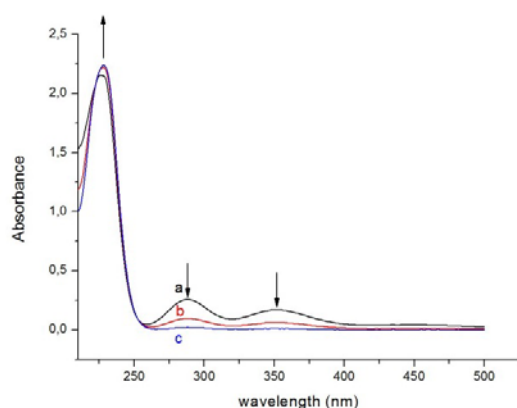


Figure S1. The time course of absorption spectra of 64 μM I₃⁻ in 30 mL H₂O after 0 (a), 30 (b), and 60 (c) min of immersion in **AE** (6 cm², 4.0 mmol/g) saturated with I⁻ ions; the arrows indicate absorption changes.

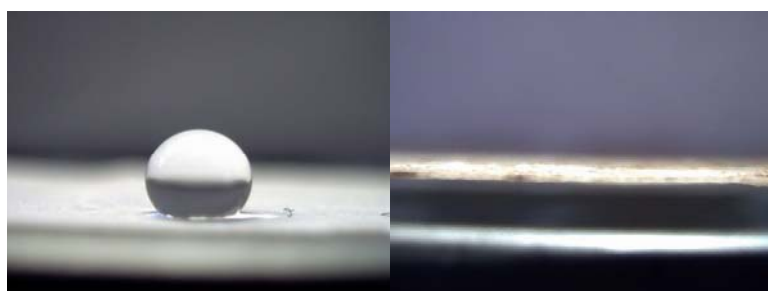


Figure S2. ACA measurement of samples **1** (left, 130°), **2**, and **3** (right, $\leq 5^\circ$).

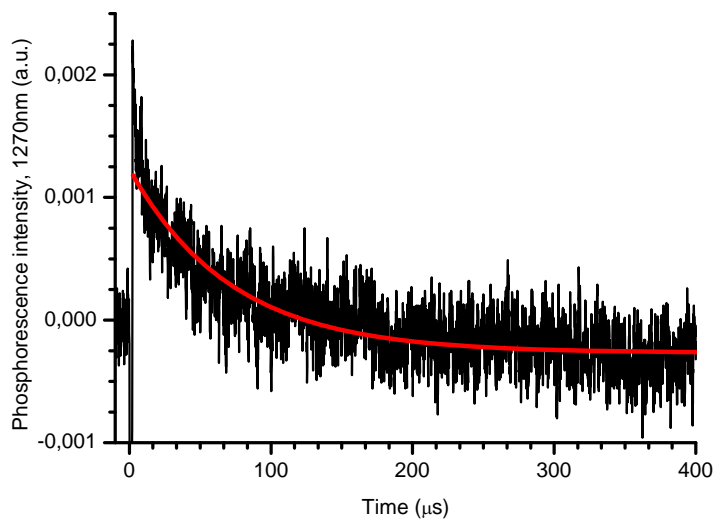


Figure S3 Time-resolved phosphorescence of $O_2(^1\Delta_g)$ at 1,270 nm after 308 nm pulsed laser excitation in air-saturated D_2O for **TPPS-AE** (TPPS/IES = 0.01).

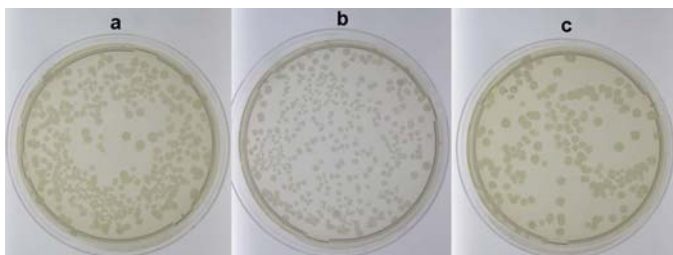


Figure S4. Post-irradiation effect. *E. coli* colonies on agar plates inoculated from the surface of **TPPS-AE** (a), **I-AE** (b), and **I-TPPS-AE** (c) first illuminated by a solar simulator (400 W, 15 min) and then inoculated with *E. coli* and stored in the dark for 1 h.