

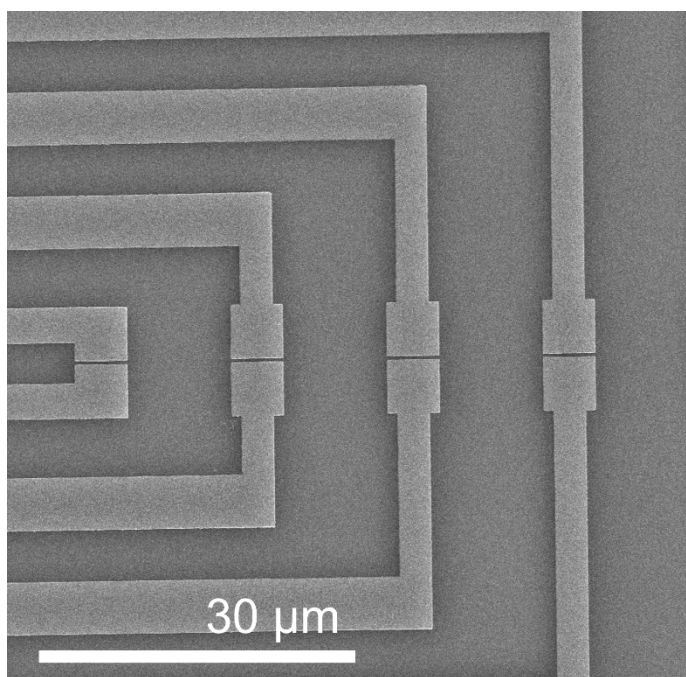
## Supporting information

### Photoresponsive Porphyrin Nanotubes of *meso*-tetra(4-sulfonatophenyl)porphyrin and Sn(IV) *meso*-tetra(4-pyridyl)porphyrin.

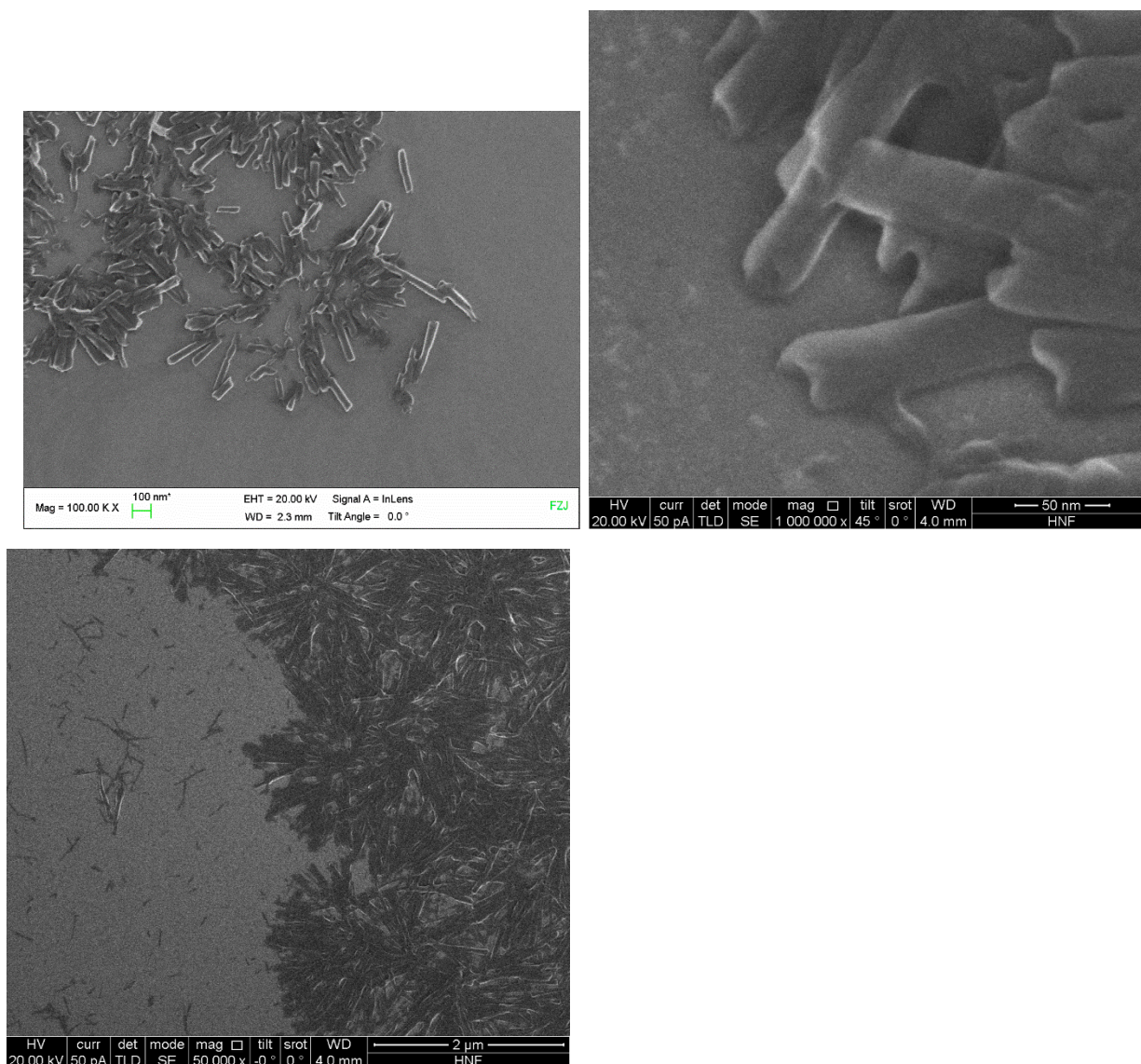
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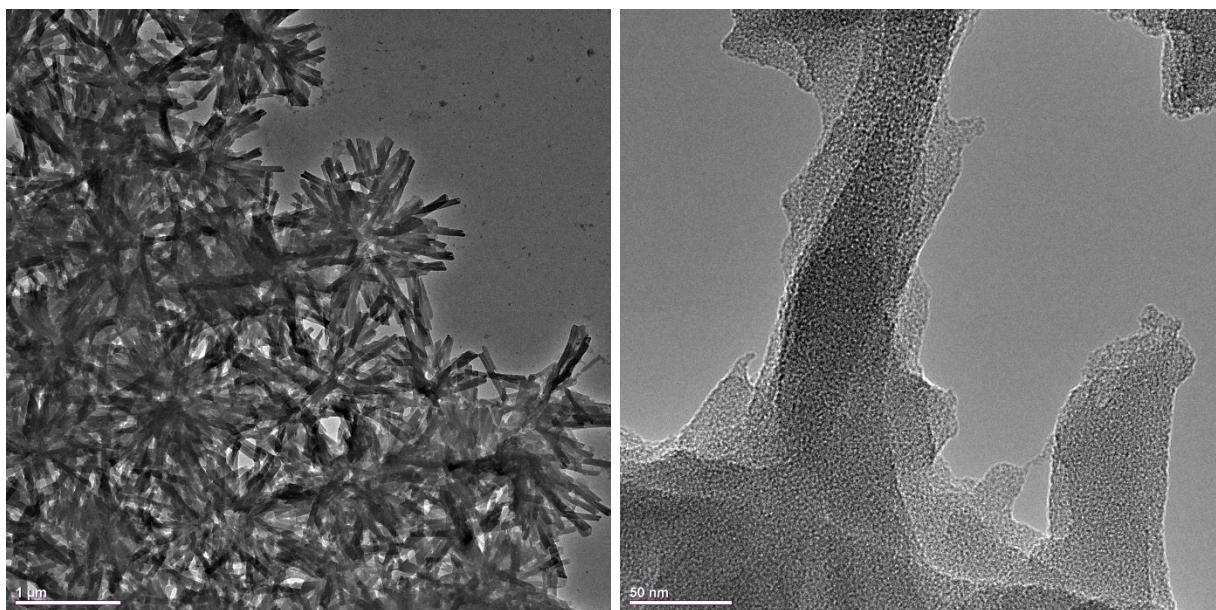
<sup>2</sup> Institute of Chemistry, Saint-Petersburg State University, Saint-Petersburg, Russia



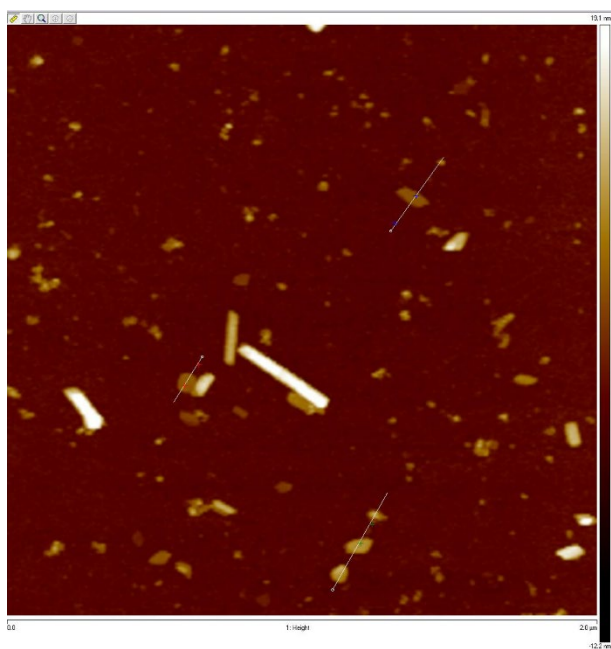
**Figure S1** | Thin-film metal electrodes for the measurement of the (photo)conductance.



**Figure S2** | SEM images of the  $\text{H}_4\text{TPPS}_4^{2-}$  -  $\text{Sn(IV)TPPyP}^{4+}$  nanotubes formed at pH=2.0 in an equimolar solution (A,B) and  $\text{Sn(IV)TPPyP}^{4+}$  and  $\text{H}_4\text{TPPS}_4^{2-}$  taken in a 1:5 concentration ratio (C), where the second type of nanostructures, thinner nanorods, can be observed.

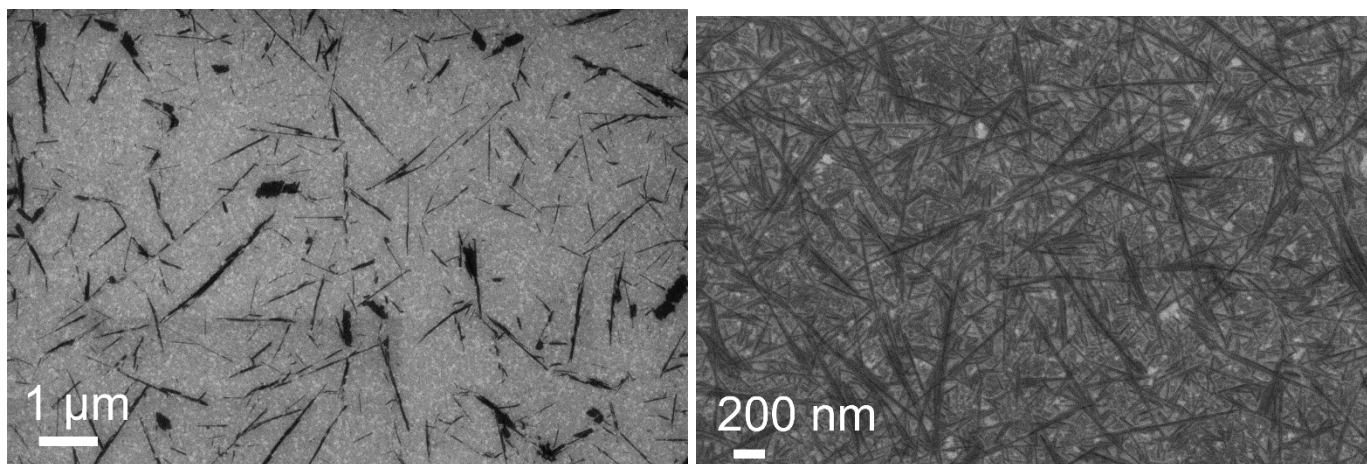


**Figure S3** | TEM images of the  $\text{H}_4\text{TPPS}^{2-}$  -  $\text{Sn(IV)TPPyP}^{4+}$  nanotubes formed in an equimolar solution at  $\text{pH}=2.0$ .

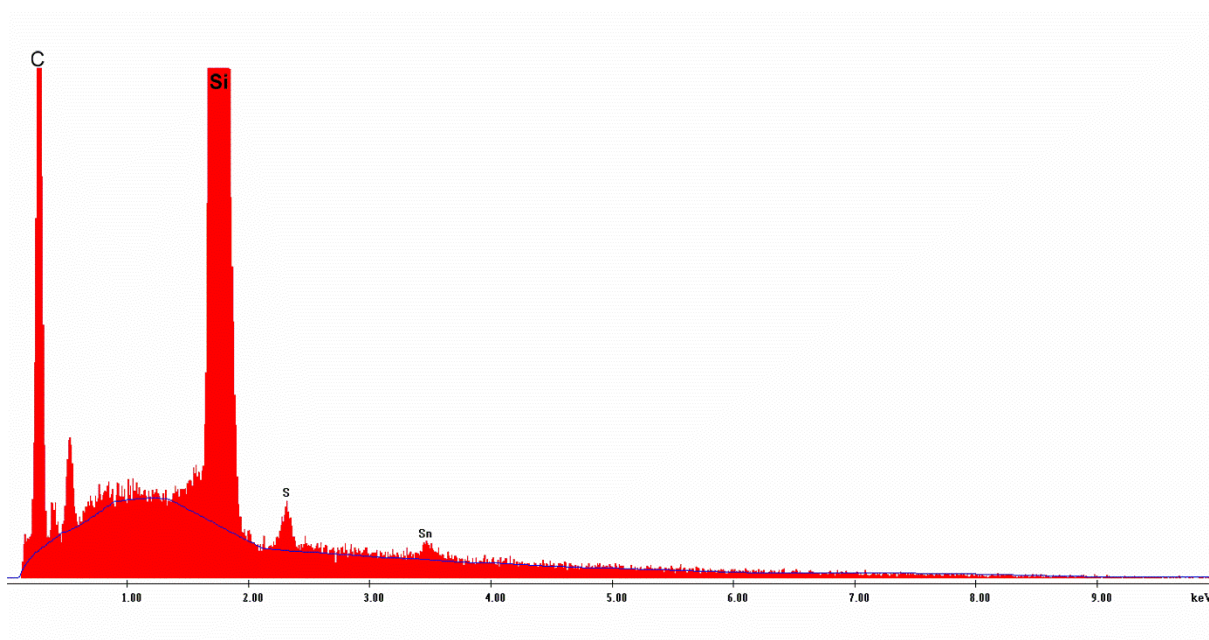


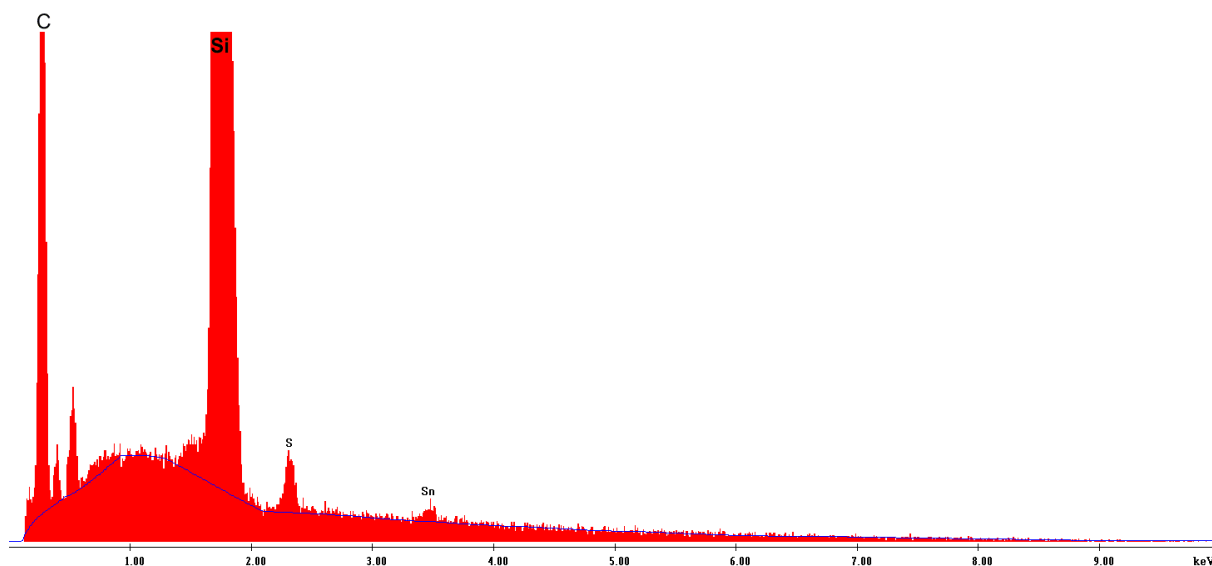
**Figure S4** | AFM image of the  $\text{H}_4\text{TPPS}^{2-}$  -  $\text{Sn(IV)TPPyP}^{4+}$  nanostructures formed in solutions at  $\text{pH}=2.0$  and  $\text{Sn(IV)TPPyP}^{4+}$  and  $\text{H}_4\text{TPPS}_4^{2-}$  taken in a 1:5 concentration ratio in solution.



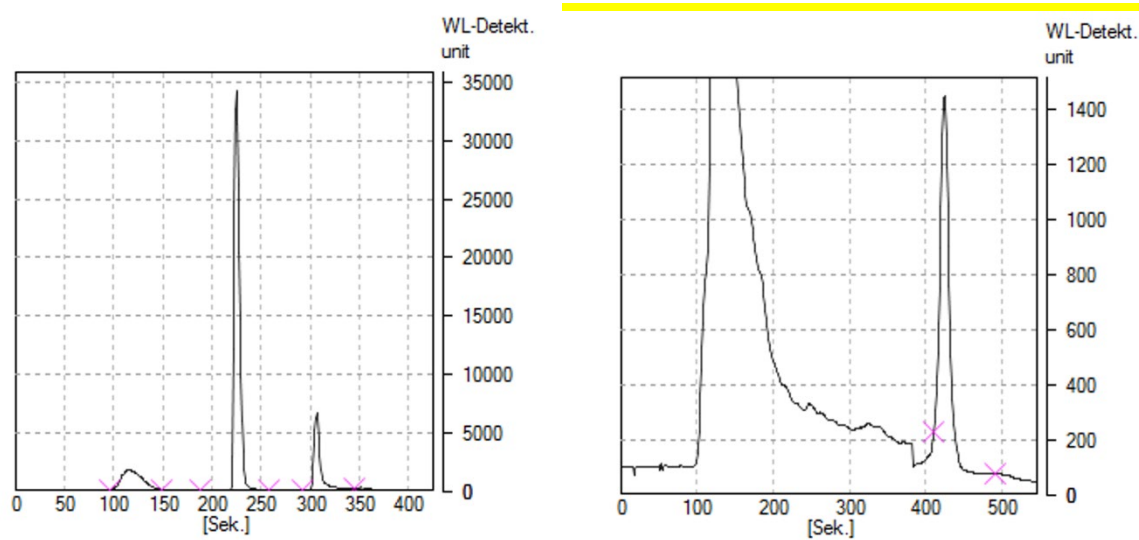


**Figure S5** | SEM images of the  $\text{H}_4\text{TPPS}^{2-}$  nanotubes prepared at pH 0.94.





**Figure S6** | EDS analyses of the  $\text{H}_4\text{TPPS}^{2-}$  -  $\text{Sn(IV)TPPyP}^{4+}$  nanotubes formed in solutions at pH=2.0 and the  $\text{Sn(IV)TPPyP}^{4+}$  and  $\text{H}_4\text{TPPS}_4^{2-}$  concentration ratio in solutions 1:5 (**A**) and 5:1 (**B**).



**Figure S7** | Elemental analysis of the  $\text{H}_4\text{TPPS}^{2-}$  -  $\text{Sn(IV)TPPyP}^{4+}$  nanotubes prepared in an equimolar solution at pH 2. Determination of CHO (**A**) and S (**B**).