

## **CoS<sub>1.097</sub> nanocrystals as new nanoplatforms for photothermal therapy of arterial inflammation**

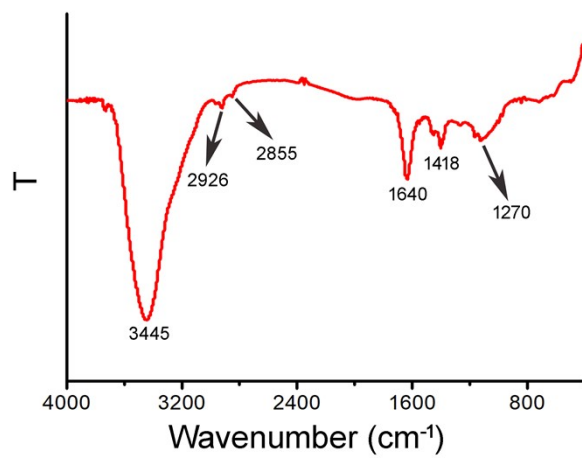
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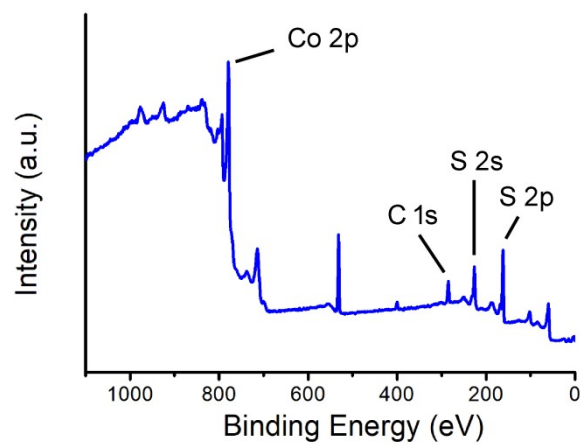
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**Figure S1.** FTIR spectra of CoS<sub>1.097</sub> nanocrystals, PVP as the surfactant.



**Figure S2.** XPS spectrum of the  $\text{CoS}_{1.097}$  nanocrystals.

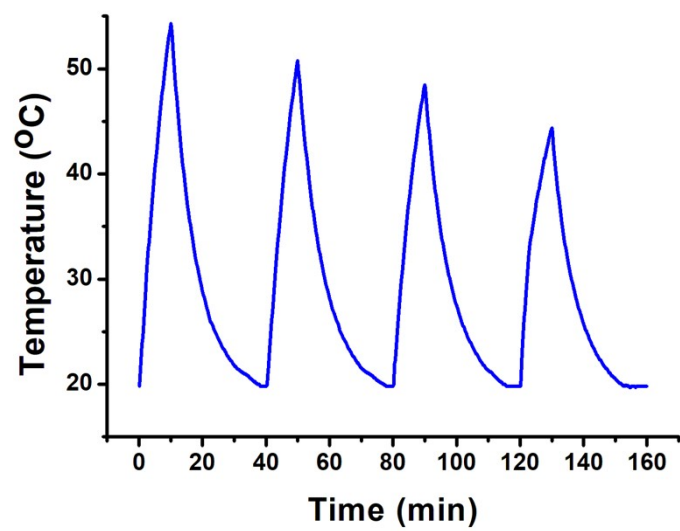


Figure S3. Temperature elevation of CoS<sub>1.097</sub> nanocrystals over four LASER ON/OFF cycles of NIR laser irradiation.

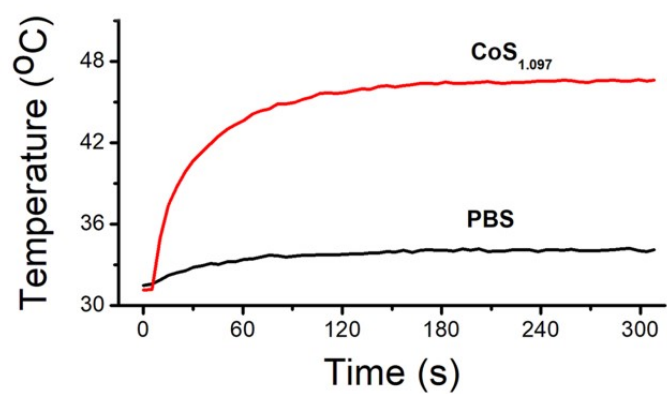


Figure S4. Temperature change during the photothermal therapy of ApoE<sup>-/-</sup> mice treated by injection of PBS / CoS<sub>1.097</sub> nanocrystals combined with the 808 nm laser irradiation (0.4 W cm<sup>-2</sup>) for 300 s.

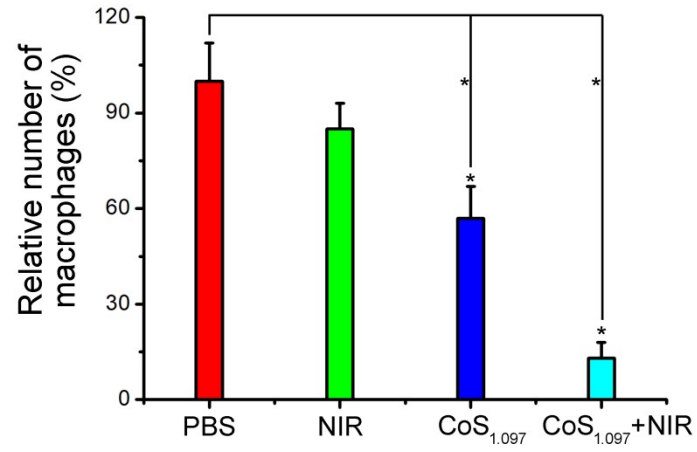


Figure S5. Quantification of the number of macrophages in different groups according to Figure 4. \*P < 0.05. Data shown are representative of three independent experiments.

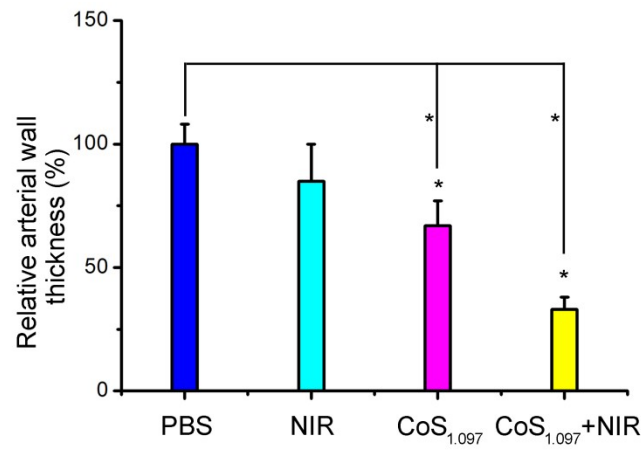
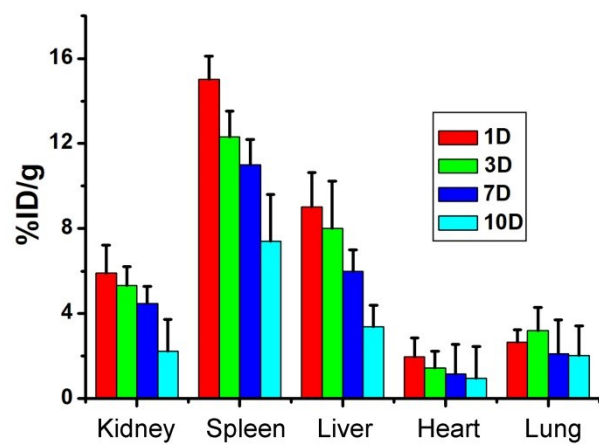


Figure S6. The vascular wall thickness of the carotid artery in different groups. \*P < 0.05. Data shown are representative of three independent experiments.



**Figure S7. Biodistribution of CoS<sub>1.097</sub> nanocrystals in major organs.**