

## **Cu<sub>2-x</sub>S Homojunction Coatings Empower Titanium Implant with Near Infrared-Triggered Antibacterial and Antifouling Properties**

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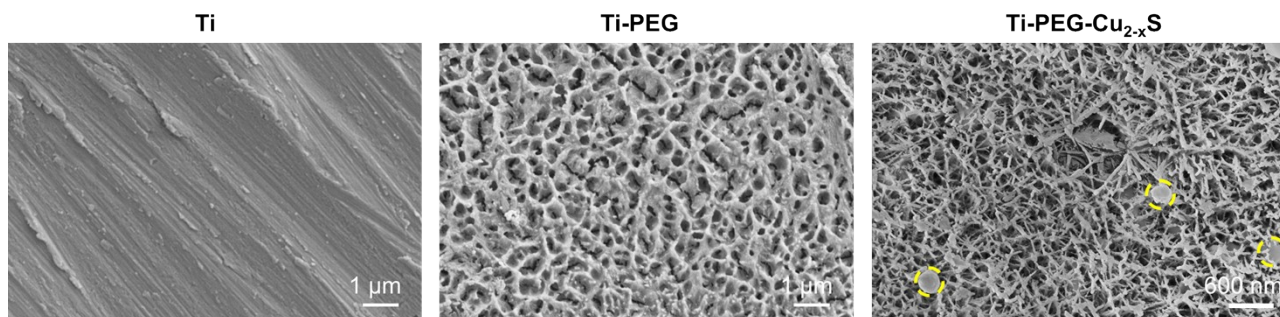


Figure S1. SEM images of Ti, Ti-PEG and Ti-PEG-Cu<sub>2-x</sub>S.

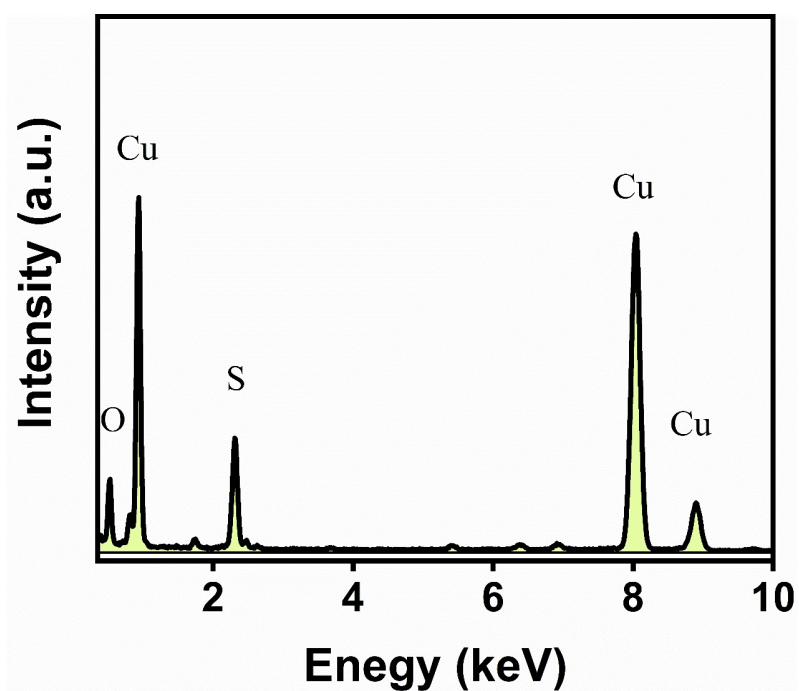


Figure S2. EDS image of the Cu<sub>2-x</sub>S.

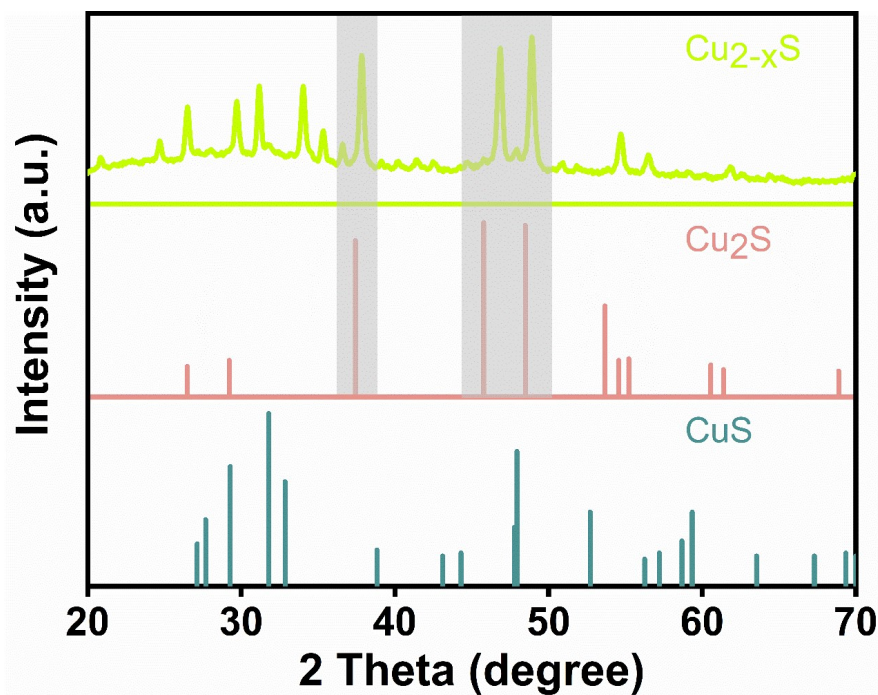


Figure S3. XRD patterns of the  $\text{Cu}_{2-x}\text{S}$ .

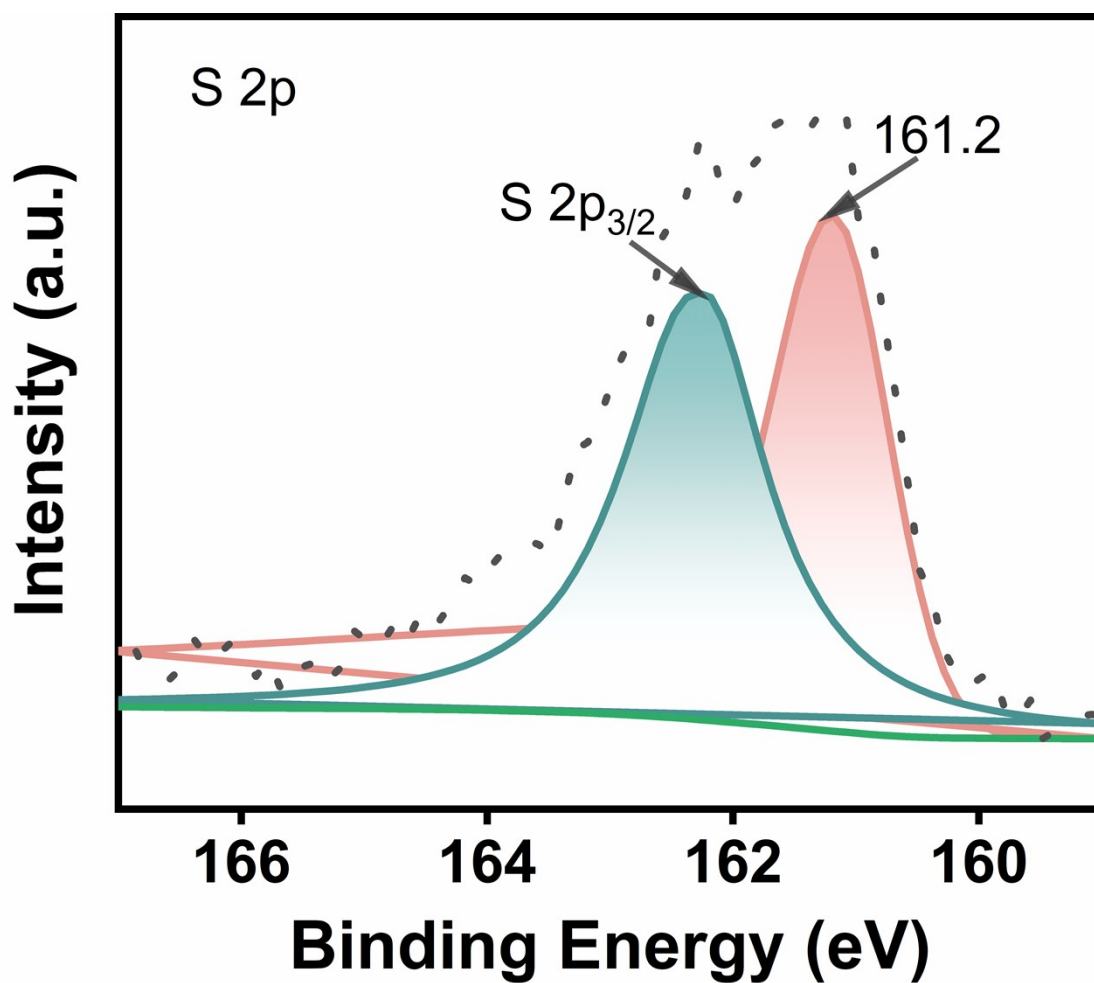


Figure S4. S 2p spectrum of  $\text{Cu}_{2-x}\text{S}$ .

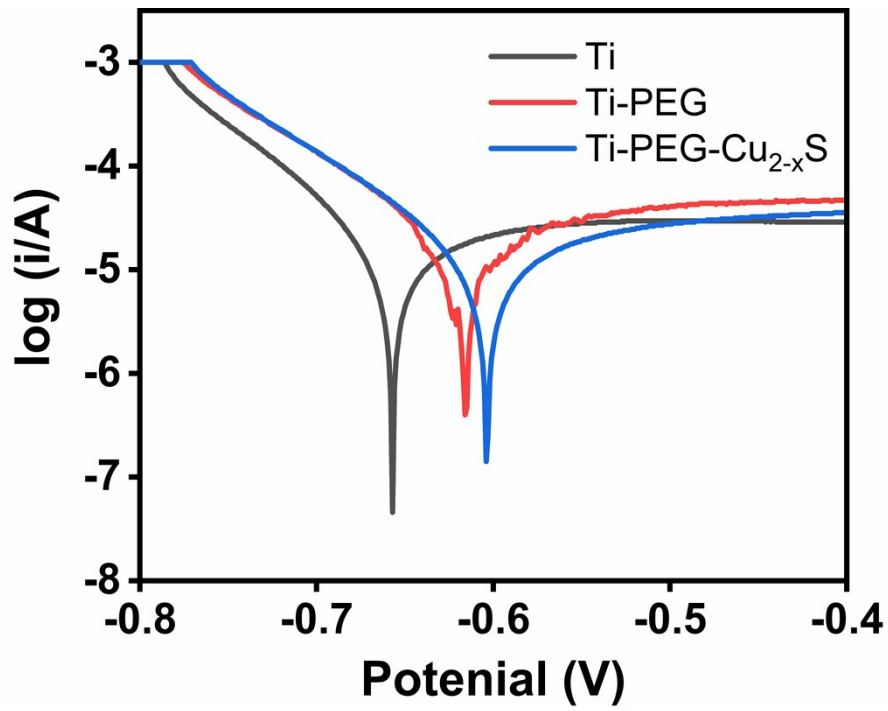


Figure S5. Potential-dynamic polarization curves of Ti, Ti-PEG and Ti-PEG-Cu<sub>2-x</sub>S.

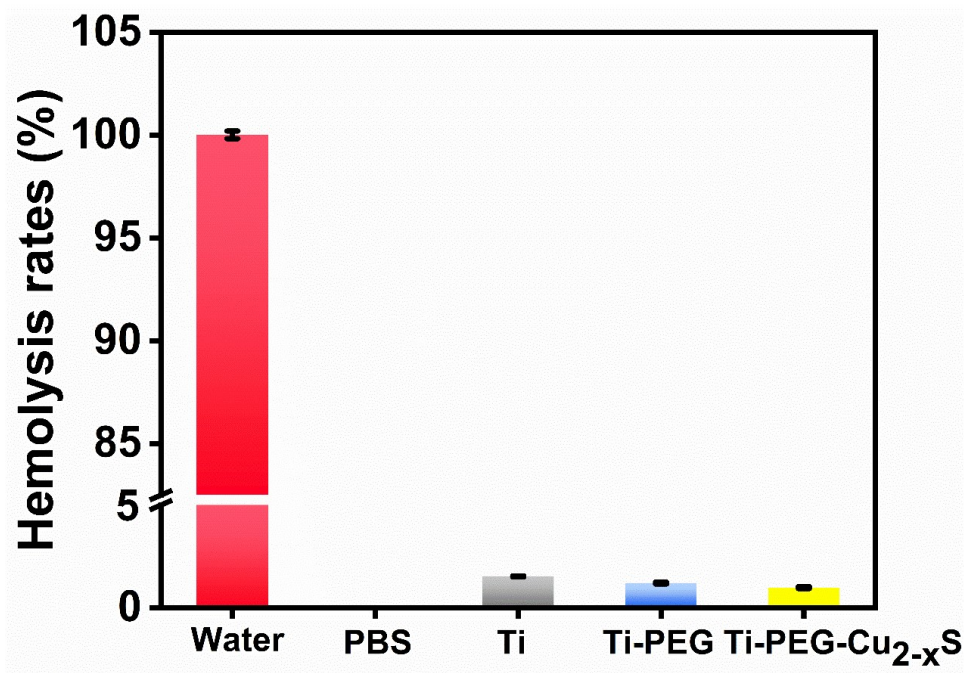


Figure S6. The hemolytic rate of different samples.