

Supporting Information

PdMo bimetallic nanozyme for photothermal-enhanced antibacterial therapy and accelerated wound healing

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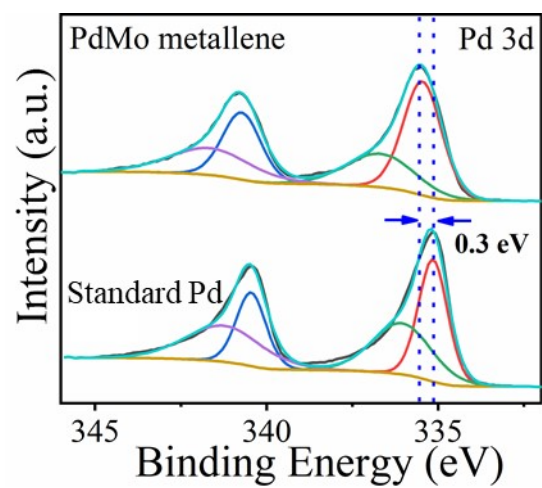


Figure S1 the XPS spectra of Pd 3d for the PdMo bimetallic and standard Pd

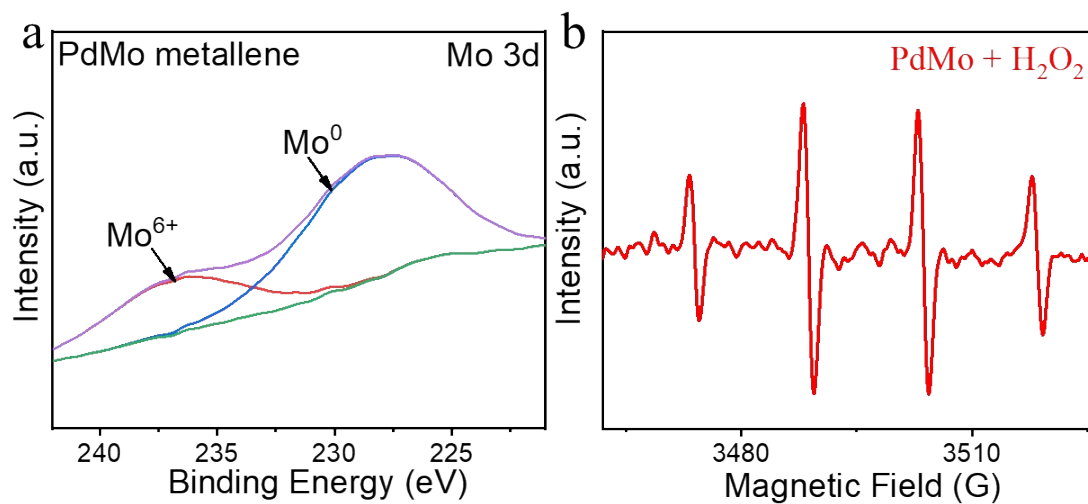


Figure S2 the XPS spectra of Mo 3d for the PdMo bimetallic (a), the EPR spectra of PdMo bimetallic + H₂O₂

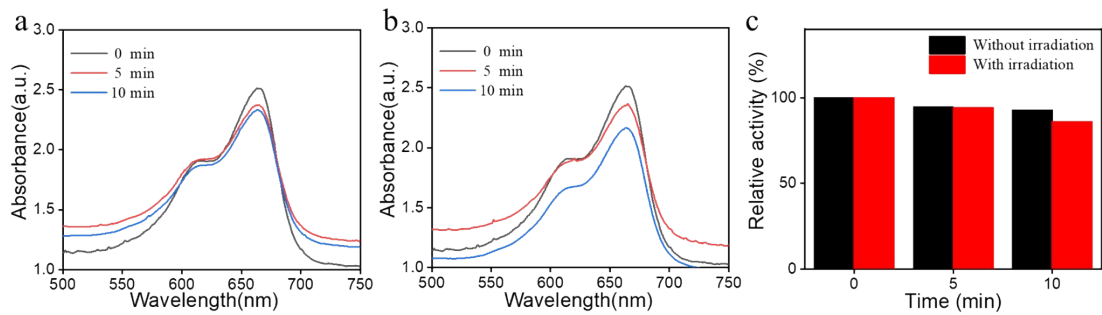


Figure S3 Time-dependent degradation spectra of MB without laser irradiation (a) and with laser irradiation (b). The comparison of relative activity between laser irradiation and control group for PdMo bimetallic + MB + H₂O₂ (c).

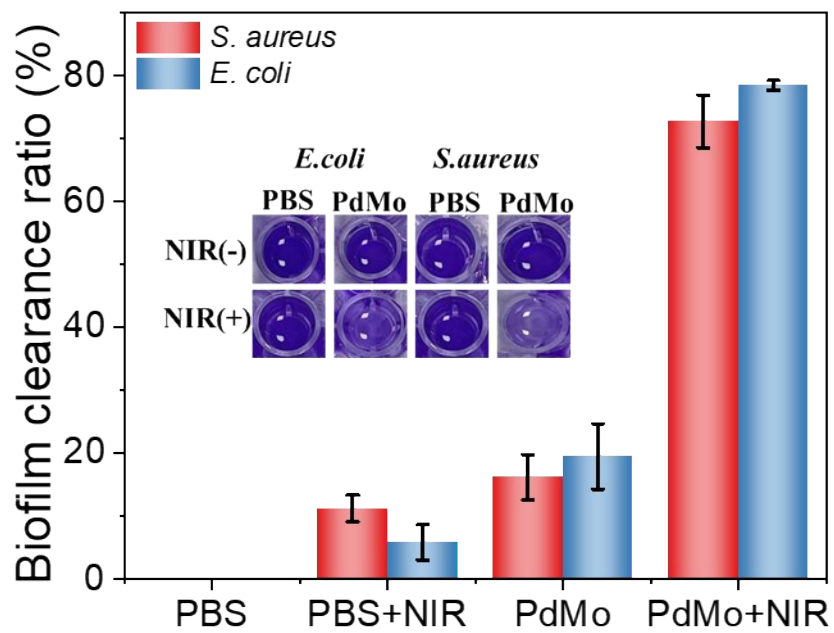


Figure S4 Biofilm eradication ratio of *S. aureus* and *E. coli* in the presence of PBS and PdMo bimetallic with or without laser irradiation.

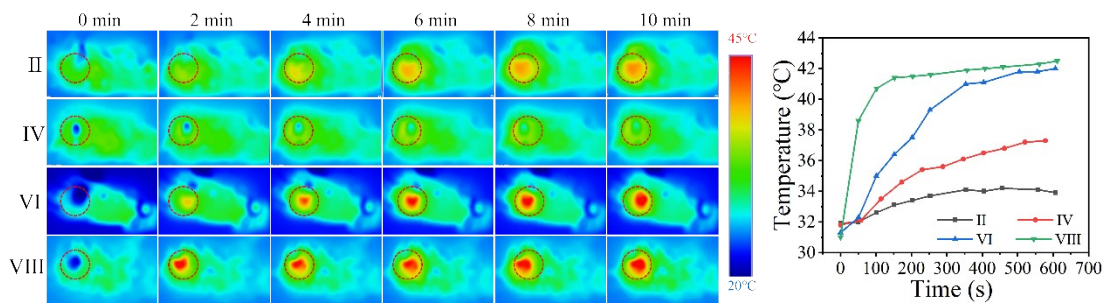


Figure S5. Representative thermal images and heating curves of mice with different treatments (Control, H₂O₂, PdMo bimetallic, and PdMo bimetallic + H₂O₂).

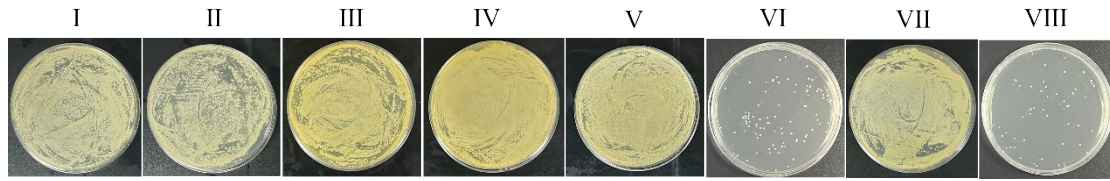


Figure S6. Representative photographs of bacterial culture from the skin tissues of mice wounds infected with *S.aureus* in eight different treatment groups (Control; Control + NIR; H_2O_2 ; H_2O_2 + NIR; PdMo; PdMo+NIR; PdMo+ H_2O_2 and PdMo+ H_2O_2 + NIR) after the 10th day of treatment.

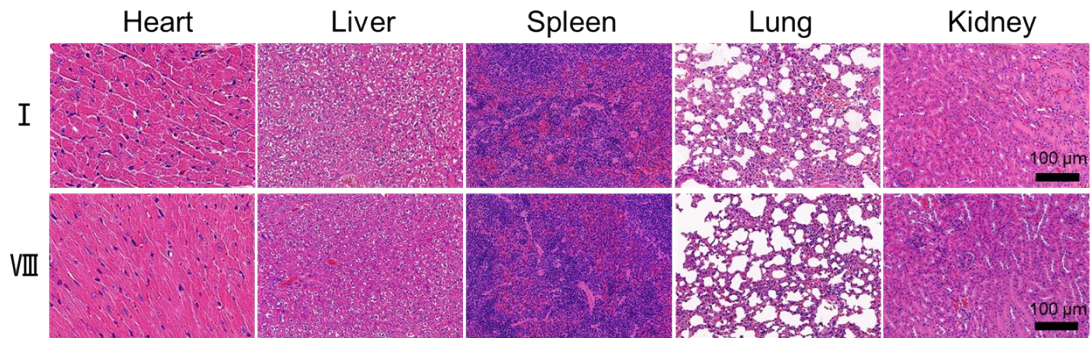


Figure S7. Histological photographs of the heart, liver, spleen, lung, and kidney of the *S.aureus* infected mice after being treated by different treatments for 10 days, respectively. The scale bars are 100 µm.

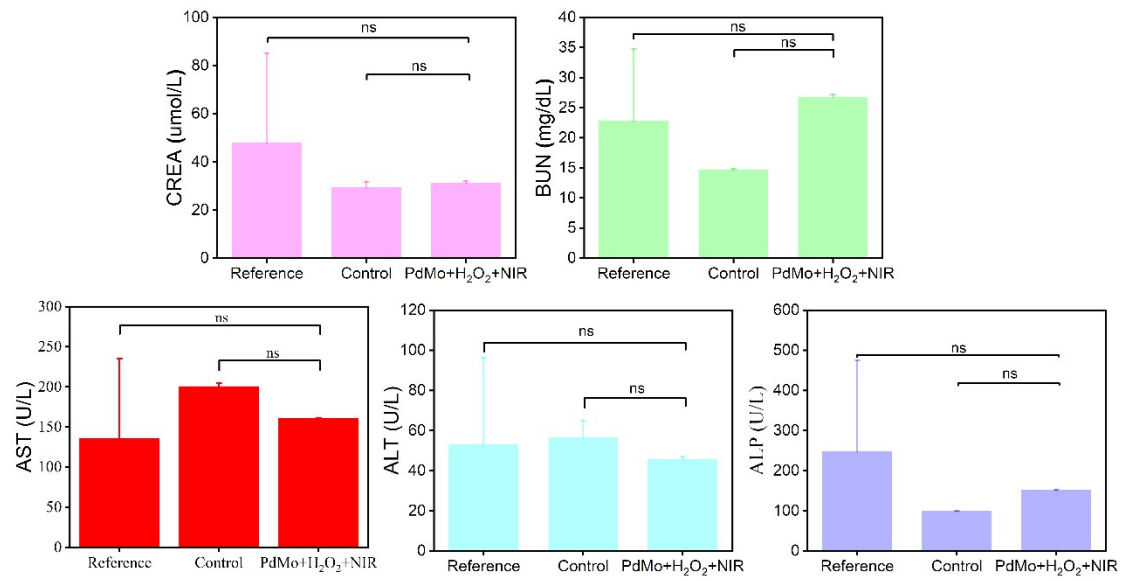


Figure S8. The biochemical indicators of mice in the I and VIII groups 10 days after administration.

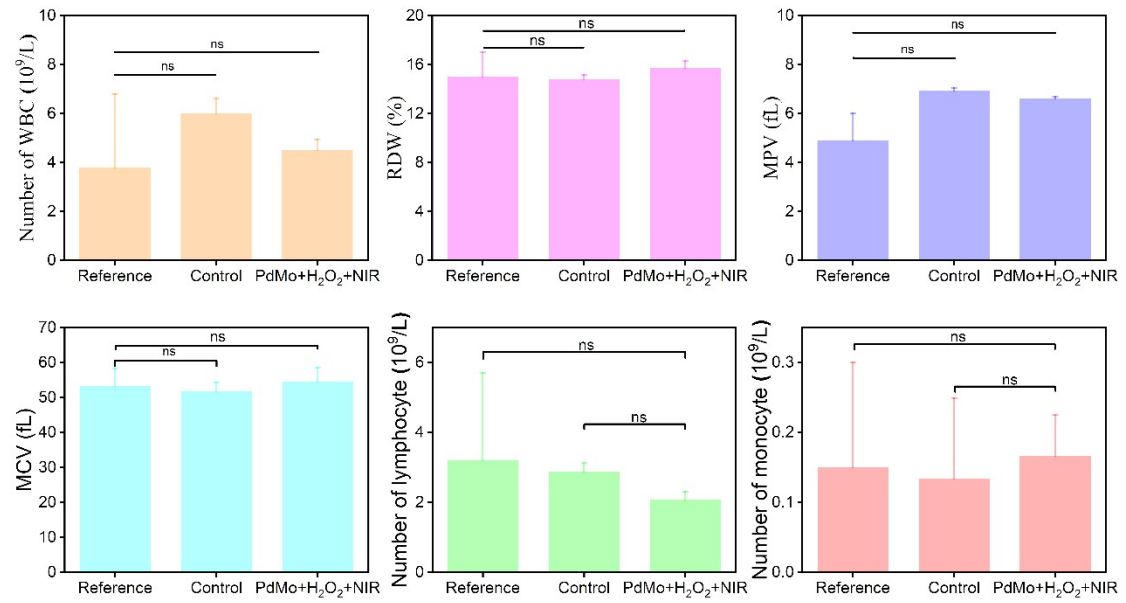


Figure S9. The routine blood analysis of mice in the I and VIII groups 10 days after administration

Table S1 the Comparison of the kinetic parameters between PdMo bimetalloenes and other POD-like nanozymes

Catalyst	Substrate	K_m (mM)	V_{max} ($10^{-8}Ms^{-1}$)	Reference
PdMo bimetalloene	H ₂ O ₂	0.26	12.50	This work
HRP	H ₂ O ₂	3.70	8.71	[1]
PdIr _{0.5} aerogel	H ₂ O ₂	2.40	53.40	[2]
B, N-PdRu aerogel	H ₂ O ₂	4.97	3.29	[3]
Pd/NiCl ₂	H ₂ O ₂	1.08	4.38	[4]
Pt/Ag NPs	H ₂ O ₂	3.5	1.59	[5]

References

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