

# White light-induced AIEgens Polyurethane film containing Schiff base Copper(II) Complexes for synergistic chemo/photodynamic antibacterial therapy †

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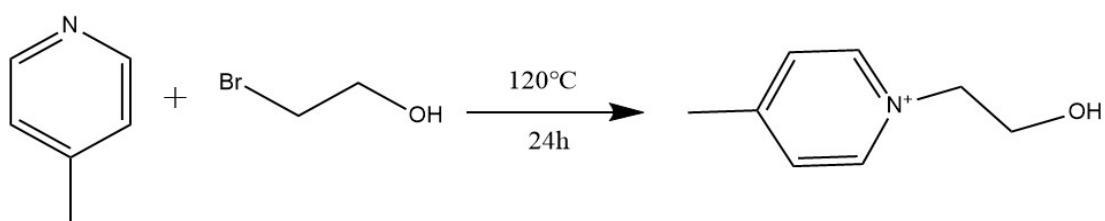
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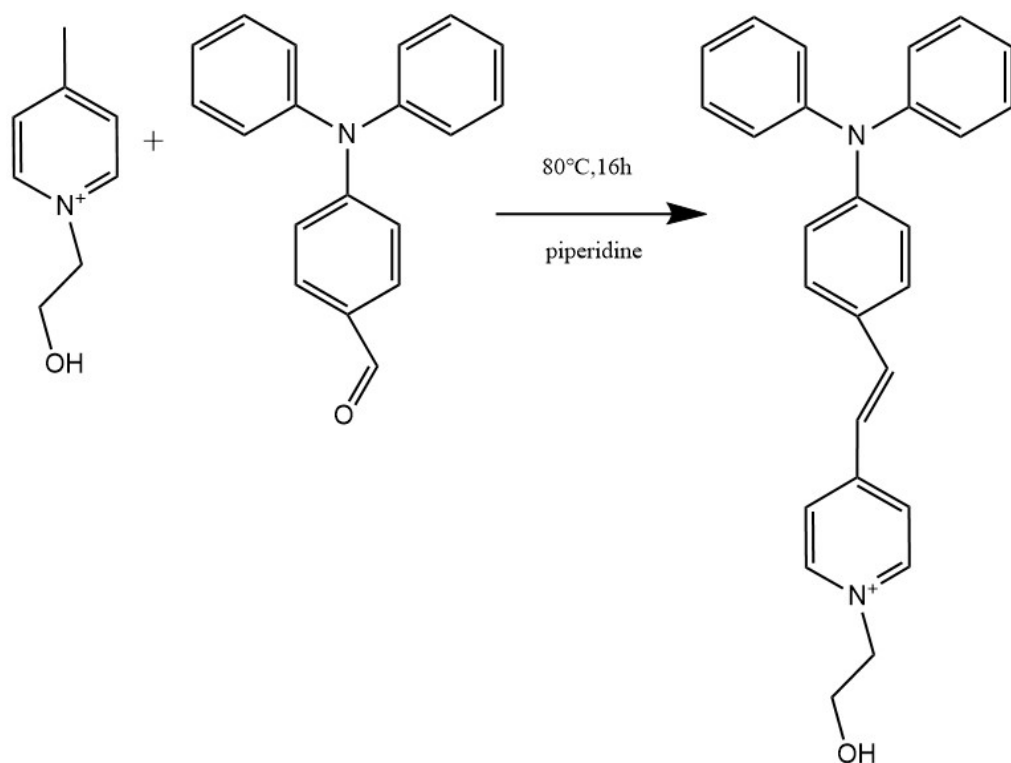
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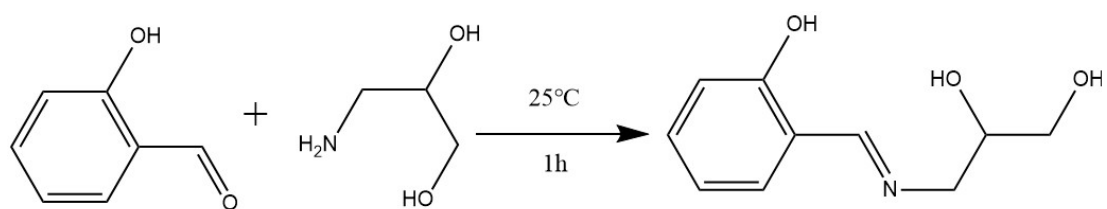
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**Scheme S1.** Synthetic route to compound 1.

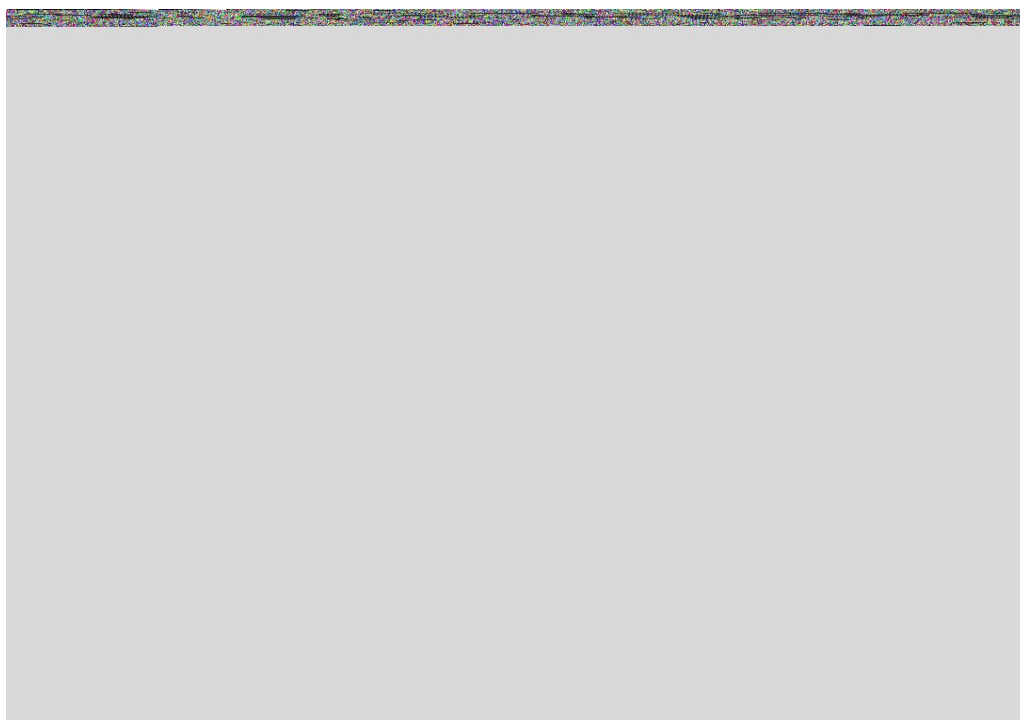


**Scheme S2.** Synthetic route to TPA-1OH.

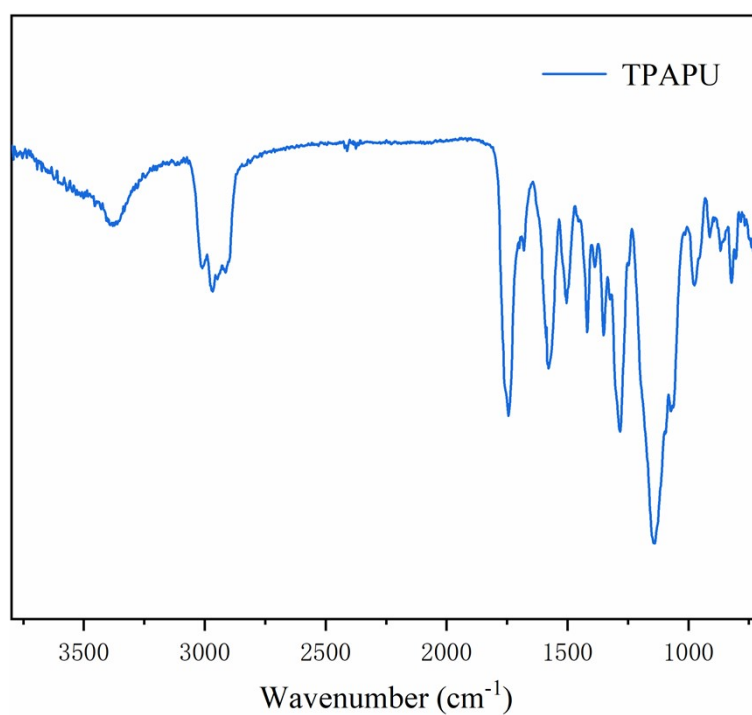


**Scheme S3.** Synthetic route to compound 3.

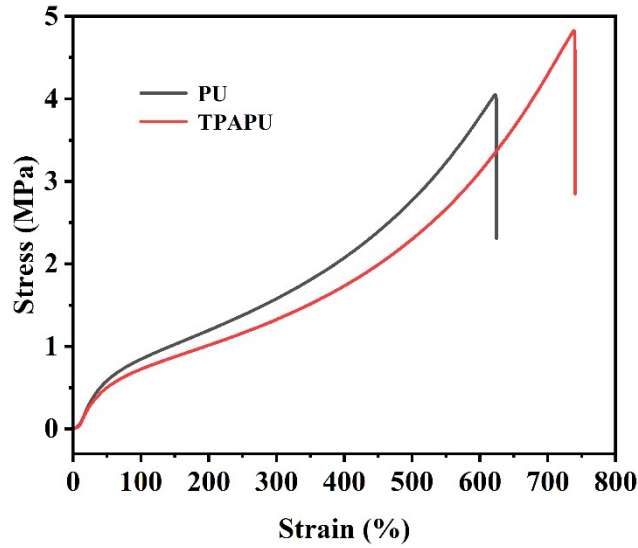




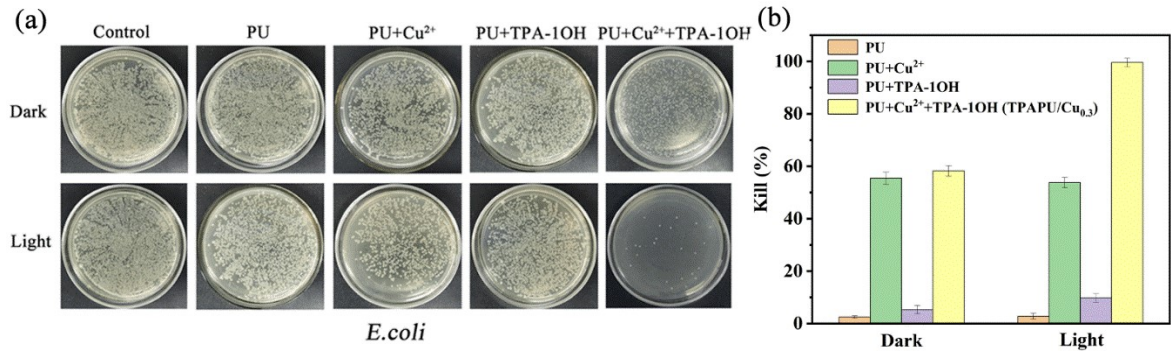
**Fig. S3.** <sup>1</sup>H NMR spectrum of TPA-1OH (DMSO).



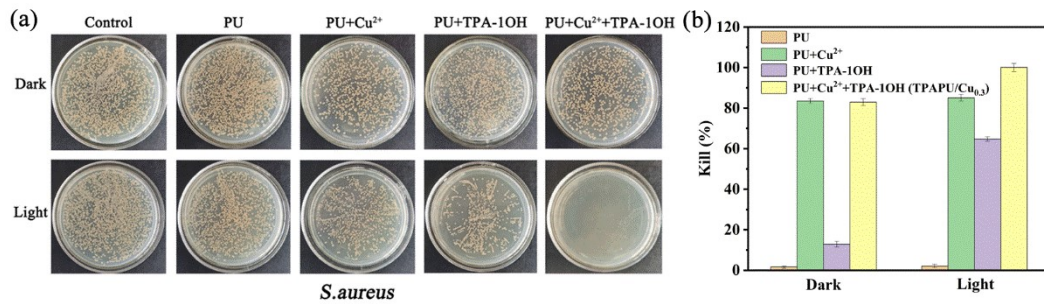
**Fig. S4.** FTIR spectrum of TPAPU.



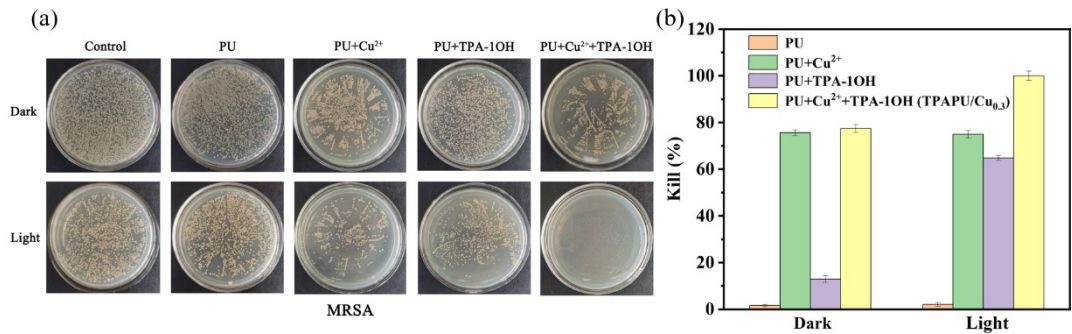
**Fig. S5.** The tensile stress-strain curves of PU and TPAPU.



**Fig. S6.** (a) Bacterial killing ability of PU, PU+Cu<sup>2+</sup>, PU+TPA-1OH, PU+Cu<sup>2+</sup>+TPA-1OH (TPAPU/Cu<sub>0.3</sub>) composite film. Plates of *E. coli* after incubation with or without white light irradiation for two hours. (b) Statistical analysis of antibacterial date of PU, PU+Cu<sup>2+</sup>, PU+TPA-1OH, PU+Cu<sup>2+</sup>+TPA-1OH (TPAPU/Cu<sub>0.3</sub>) composite film.



**Fig. S7.** (a) Bacterial killing ability of PU, PU+Cu<sup>2+</sup>, PU+TPA-1OH, PU+Cu<sup>2+</sup>+TPA-1OH (TPAPU/Cu<sub>0.3</sub>) composite film. Plates of *S. aureus* after incubation with or without white light irradiation for two hours. (b) Statistical analysis of antibacterial date of PU, PU+Cu<sup>2+</sup>, PU+TPA-1OH, PU+Cu<sup>2+</sup>+TPA-1OH (TPAPU/Cu<sub>0.3</sub>) composite film.



**Fig. S8.** (a) Bacterial killing ability of PU, PU+Cu<sup>2+</sup>, PU+TPA-1OH, PU+Cu<sup>2+</sup>+TPA-1OH (TPAPU/Cu<sub>0.3</sub>) composite film. Plates of MRSA after incubation with or without white light irradiation for two hours. (b) Statistical analysis of antibacterial date of PU, PU+Cu<sup>2+</sup>, PU+TPA-1OH, PU+Cu<sup>2+</sup>+TPA-1OH (TPAPU/Cu<sub>0.3</sub>) composite film.