Synergistic polyphenol-amino acid nanoparticles: a new strategy for reactive oxygen species management

Huizhou Ye[1,#], Jiayin Cai[3,#], Zhihao Shen[4], Qiuping Qian[2], Jiashu Zhang[1,*]

[1]The Second Affiliated Hospital and Yuying Children's Hospital of Wenzhou Medical University, Wenzhou, Zhejiang 325000, China，51774130@qq.com

[2]Zhejiang Engineering Research Center for Tissue Repair Materials, Wenzhou Institute, University of Chinese Academy of Sciences, Wenzhou, Zhejiang 325000, China

[3]Zhejiang Chinese Medical University, Hangzhou, Zhejiang 310053, China

[4]Joint Center of Translational Medicine, The First Affiliated Hospital of Wenzhou Medical University, Wenzhou, Zhejiang 325000, China

[#]These authors (Huizhou Ye, Jiayin Cai) contributed equally.

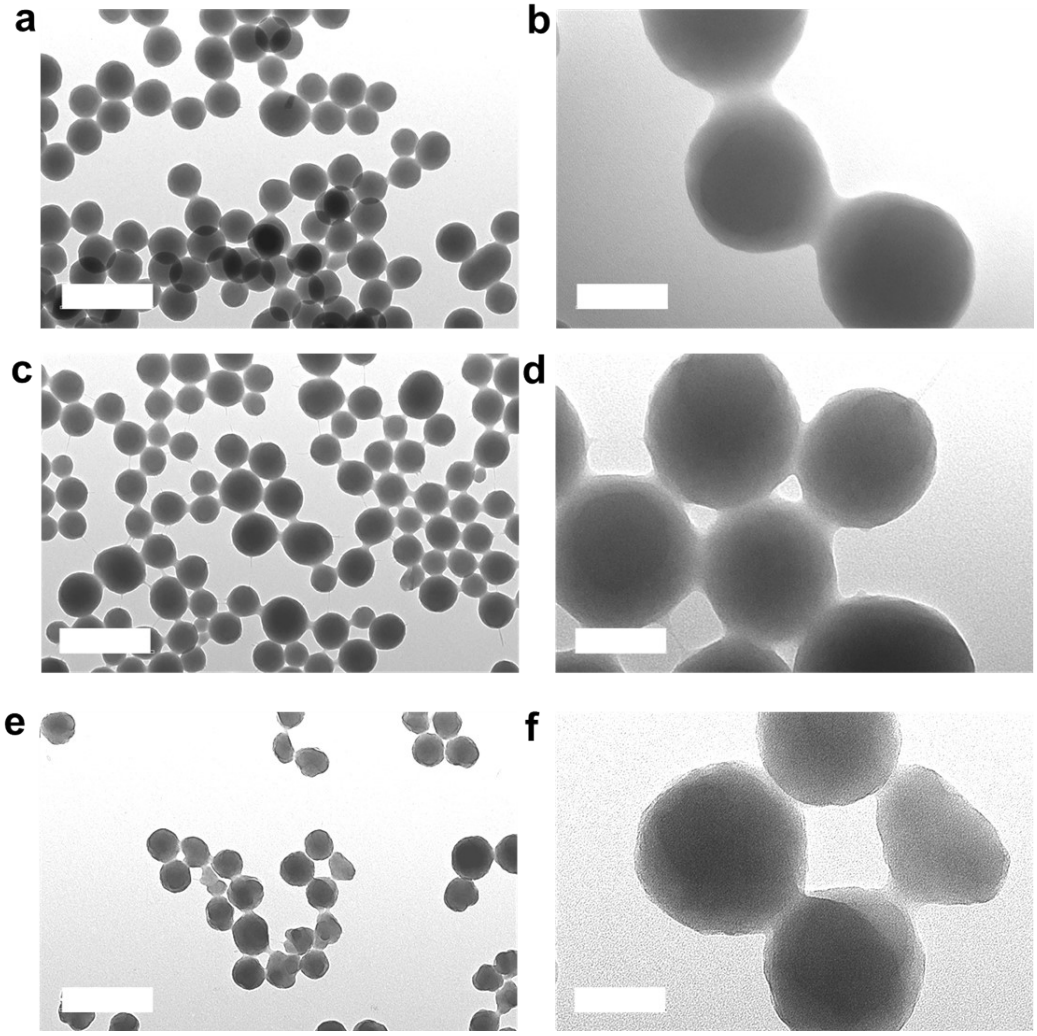

Fig. 1 TEM Images of PTR nanoparticles by adjusting the concentration Arg (R), (a, b) [Arg]/[TP]=1/4, (c, d) [Arg]/[TP]=1/2, (e, f) [Arg]/[TP]=1, (a, c, e), Scale bar: 500 nm, (b,d,f), Scale bar: 100 nm.

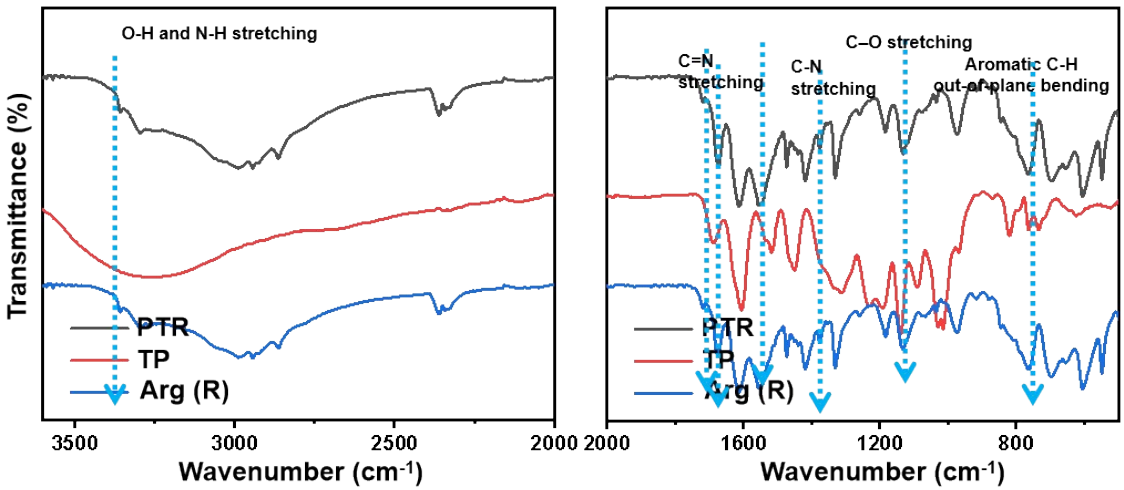

Fig. S2 FTIR spectrum of PTR NP, TP, Arg(R).

Fig.3 Schematic illustration of the TMB + OH• scavenging process

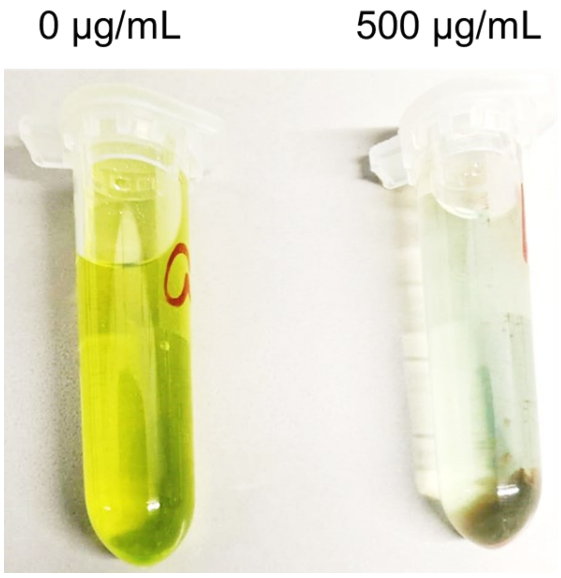

Fig. S4 Photograph of TMB+•OH after incubation with PBS solution and PTA NP.