

Supporting Information

Prussian Blue Analogue Nanoenzymes Mitigate Oxidative Stress and Boost Bio-Fermentation

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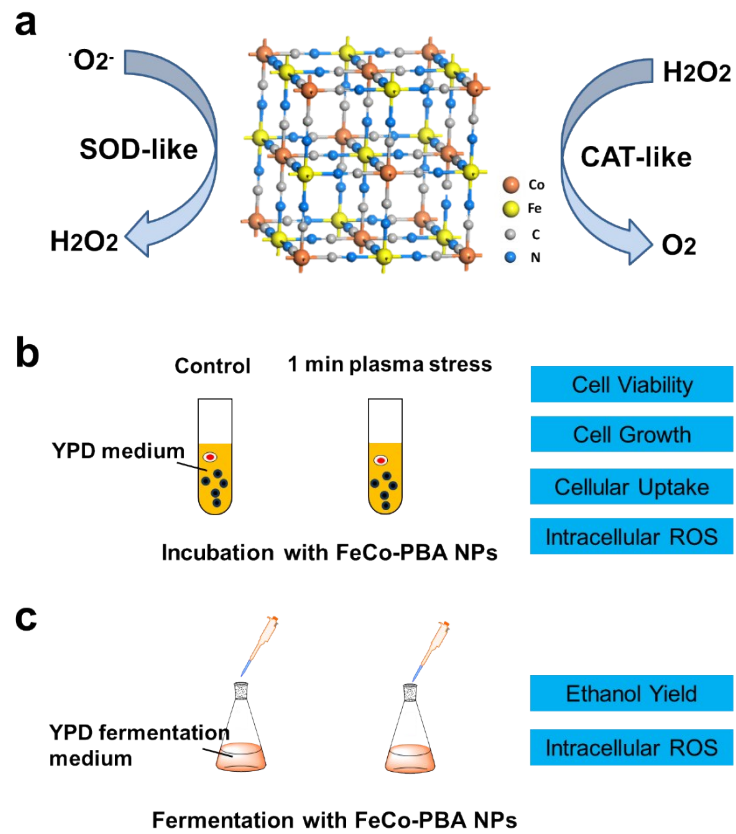


Fig. S1 (a) Schematic illustration of FeCo-PBA NPs with SOD- and CAT-like activities. (b) and (c) Schematic representation of the experimental procedure on the biological ability of FeCo-PBA NPs, as well as FeCo-PBA NPs applied for yeast fermentation.

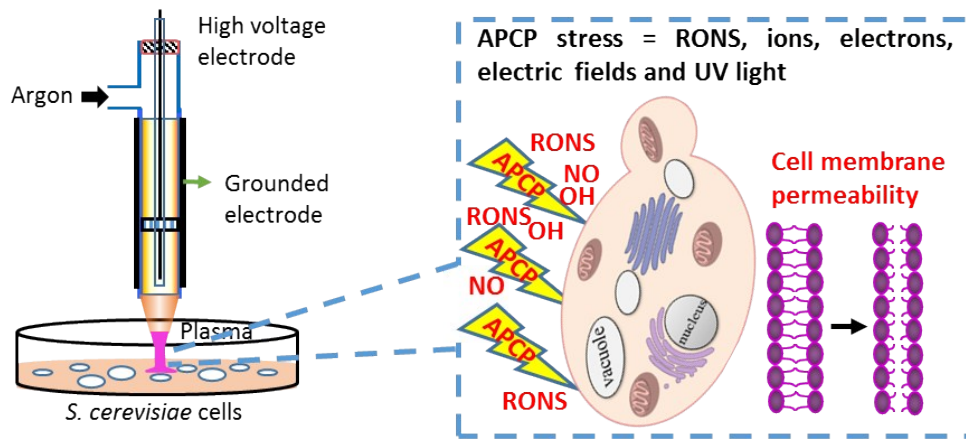


Fig. S2 Schematic illustration of APCP stress, including reactive oxygen and nitrogen species (RONS), ions, electrons, electric field and UV light, which may induce some oxidative stress to *S. cerevisiae* cells.

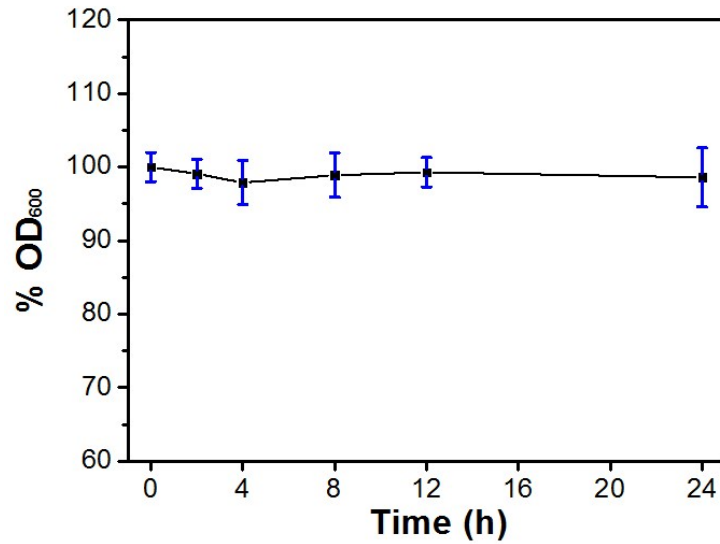


Fig. S3 UV-vis measurement of PBA-NPs at a concentration of 100 µg/mL in media.

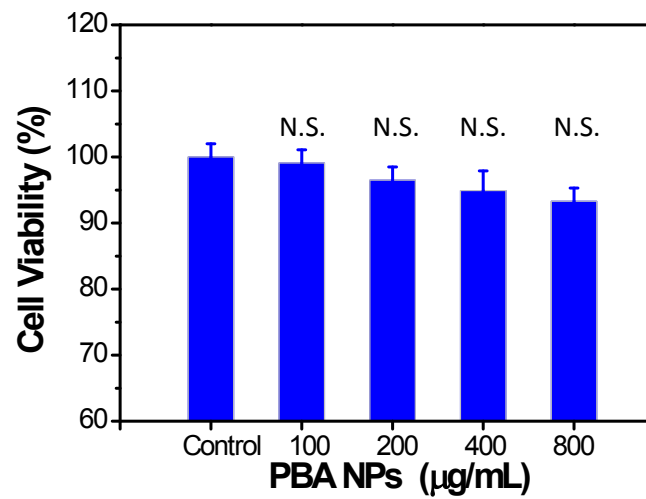


Fig. S4 Cell viability of *S. cerevisiae* under different concentrations of PBA NPs ranging from 0-800 µg/mL.

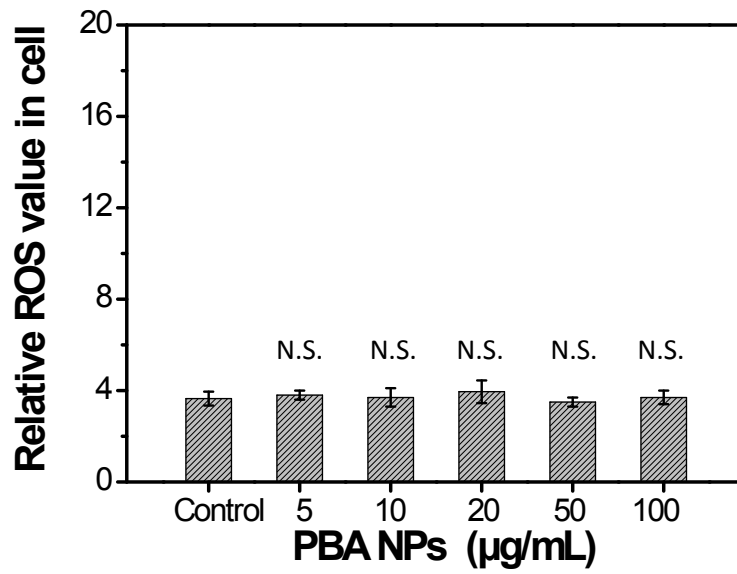


Fig. S5 Intracellular ROS level in *S. cerevisiae* under different concentrations of PBA NPs.

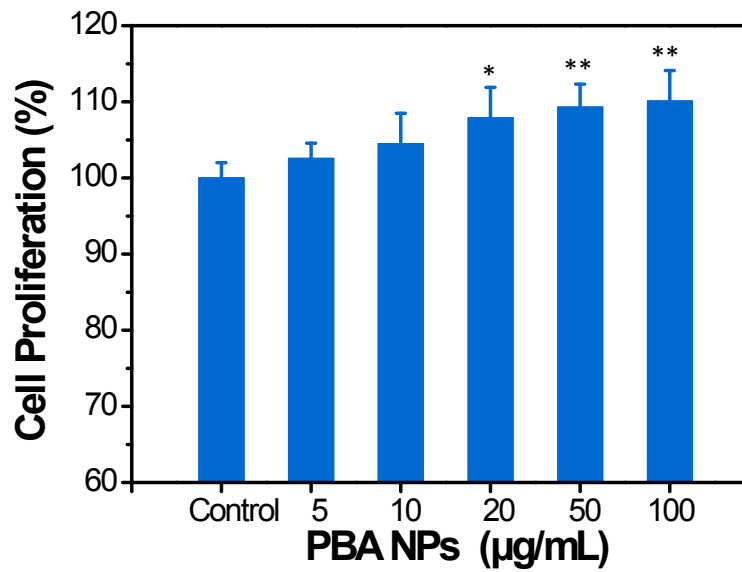


Fig. S6 Cell growth of *S. cerevisiae* under different concentrations of PBA NPs.

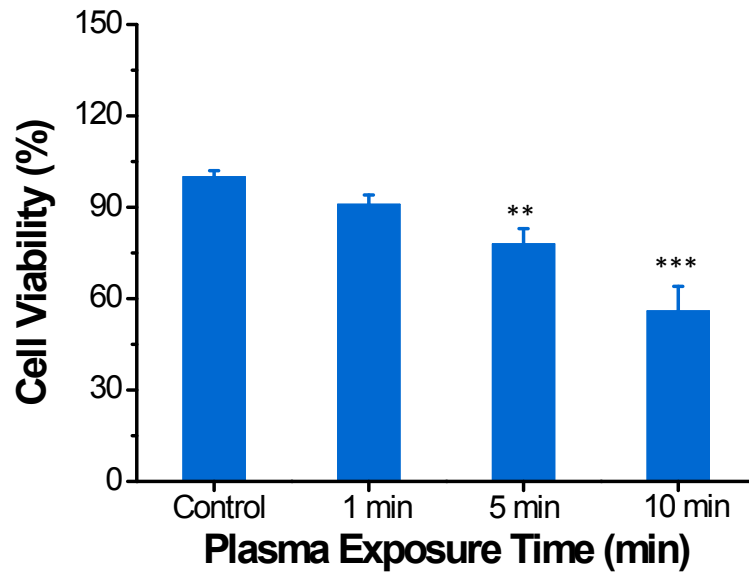


Fig. S7 Effect of APCP exposure on the cell viability of *S. cerevisiae* as a function of plasma exposure time.

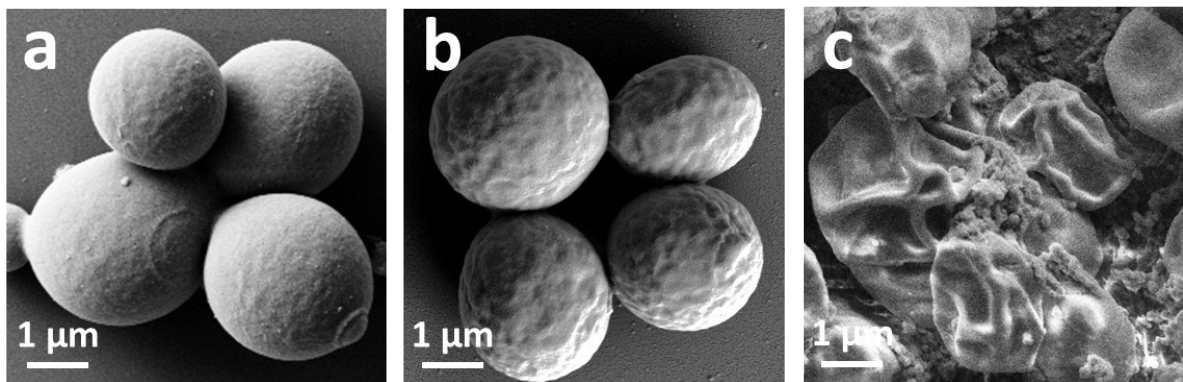


Fig. S8 Representative SEM images of yeast cells showing untreated (a) and 1-minute (b) and 10-min (c) plasma-treated yeast cells.

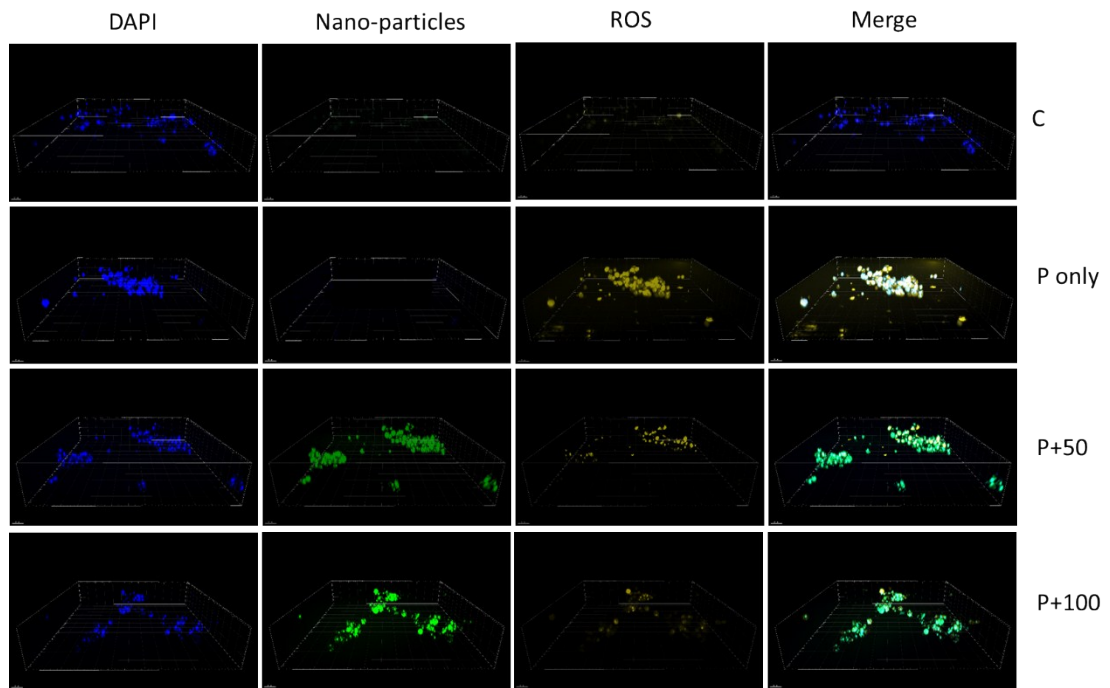


Fig. S9 Confocal microscopy 3D images of PBA NPs uptaken by *S. cerevisiae* cells. After different types of treatments, these cells are stained by DAPI (blue) and CellROX (yellow) and fixed at room temperature. The z-stacking is scanned by Spinning Disc Confocal Microscope Nikon.