Ag and Au Nanoparticles: Green Synthesis, Catalytic and Bacterial Activity Studies

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Supporting Information

S. No. **Content** **Page No.**

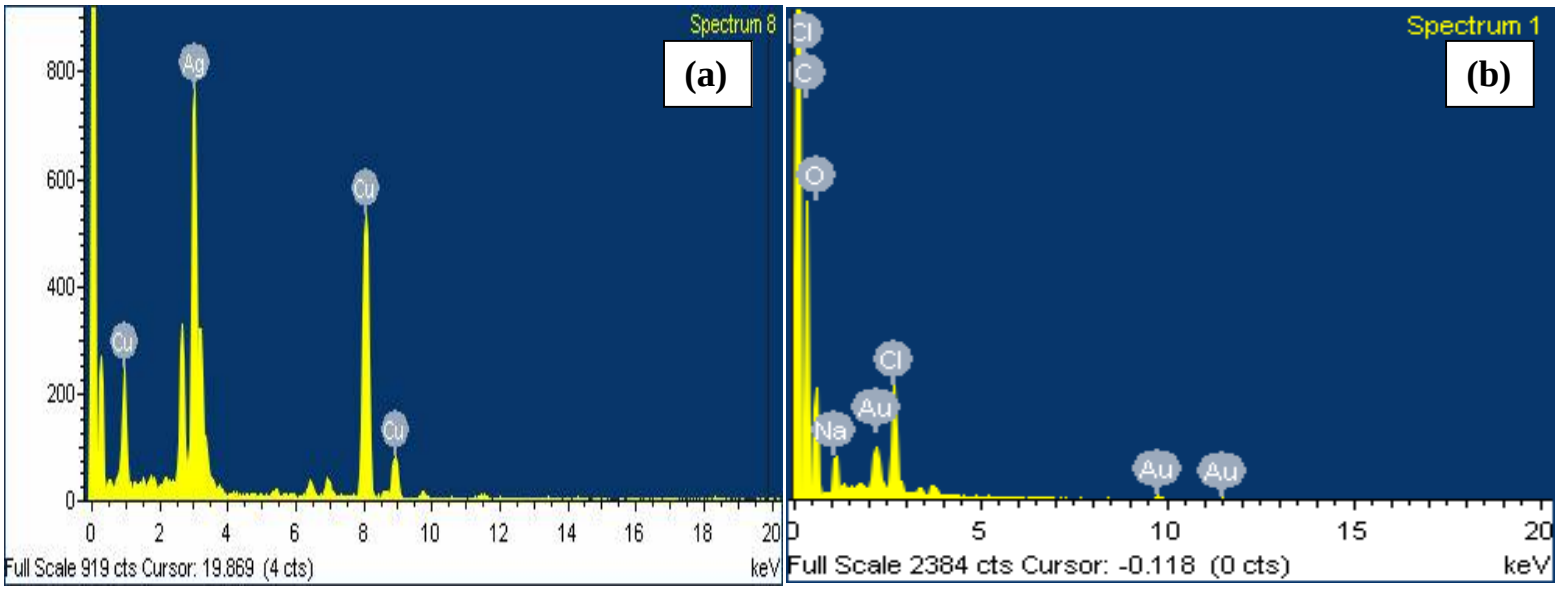

Figure S1. The optical absorption spectrum at 3 keV indicating the presence of metallic silver (a) and absorption spectrum at 2 keV indicates the presence of metallic gold (b).

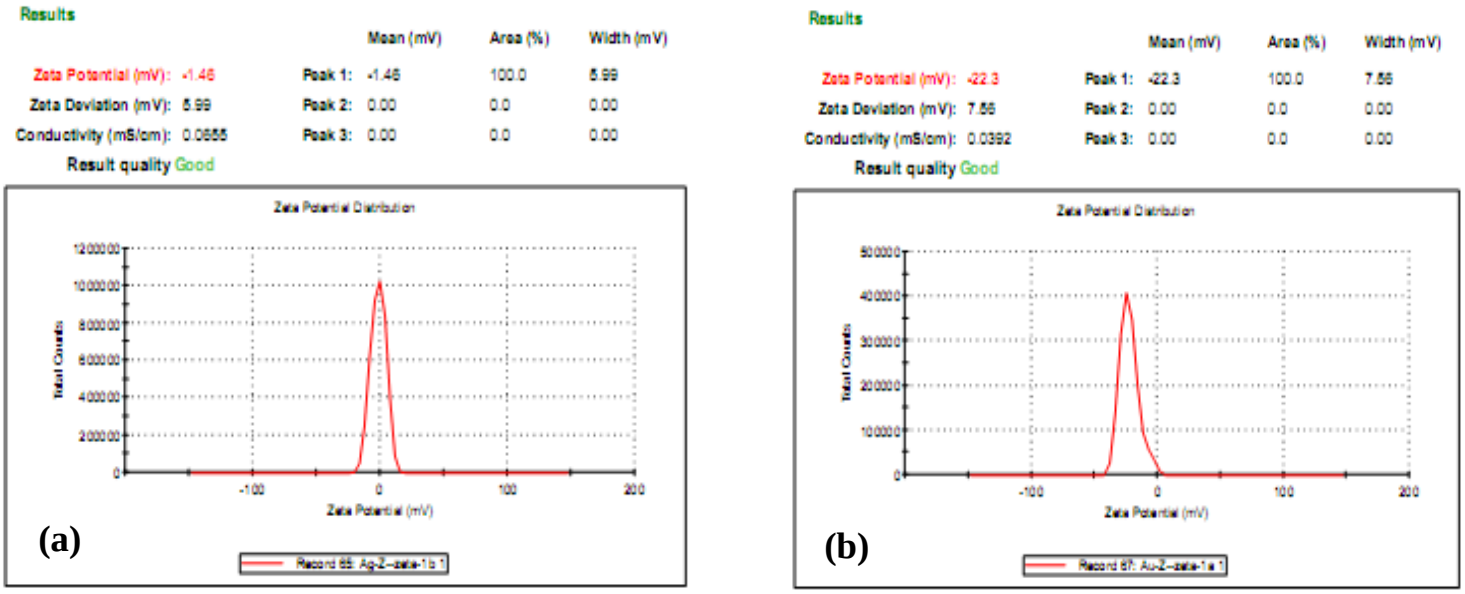

Figure S2. Zeta potential of (a) silver (S_1) and (b) gold (G_1) nanoparticles synthesized from 1.0 x 10^{-3}M $AgNO_3$ and $HAuCl_4$ respectively.

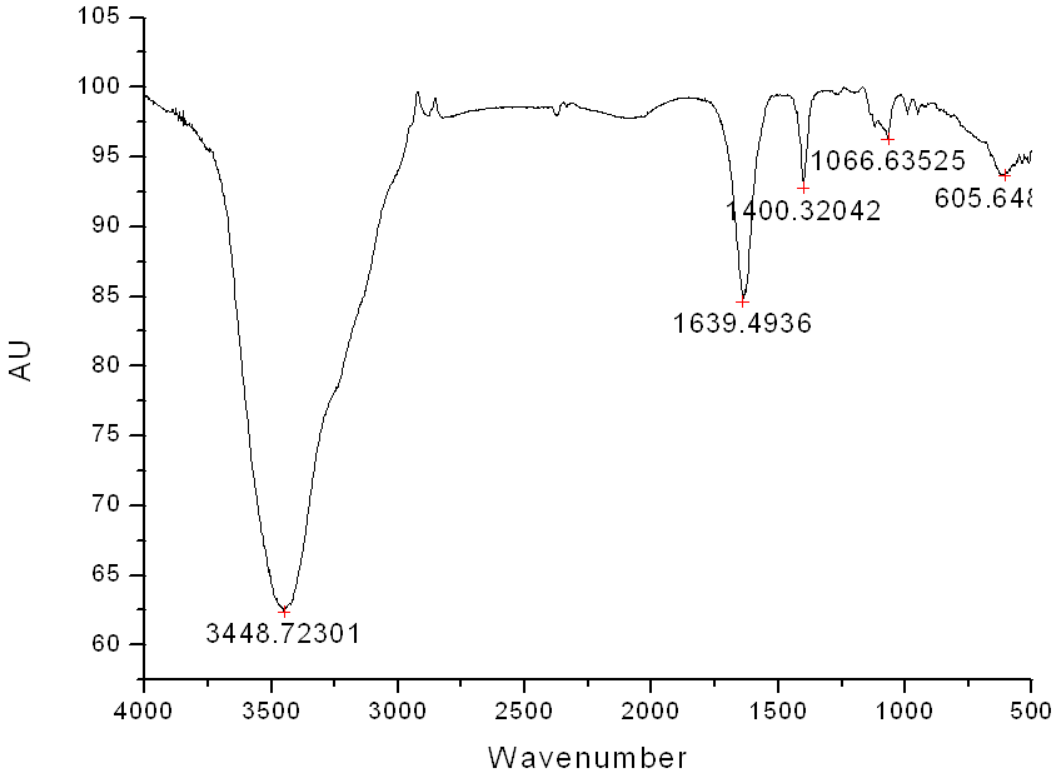

Figure S3. FT-IR spectrum of fruit extract.

Table S1. Bactericidal activity of silver and gold nanoparticles synthesized from 1.0 x 10^{-3}M $AgNO_3$ (S_1) and $HAuCl_4$ (G_1) respectively.

Name of the pathogen	Zone of inhibition for Ag NPs (in mm)			Zone of inhibition for Au NPs (in mm)		
	10 µL	**20 µL**	**30 µL**	**10 µL**	**20 µL**	**30 µL**
P.aeruginosa	20	25	27	15	16	21
S.aureus	18	20	20	12	17	20

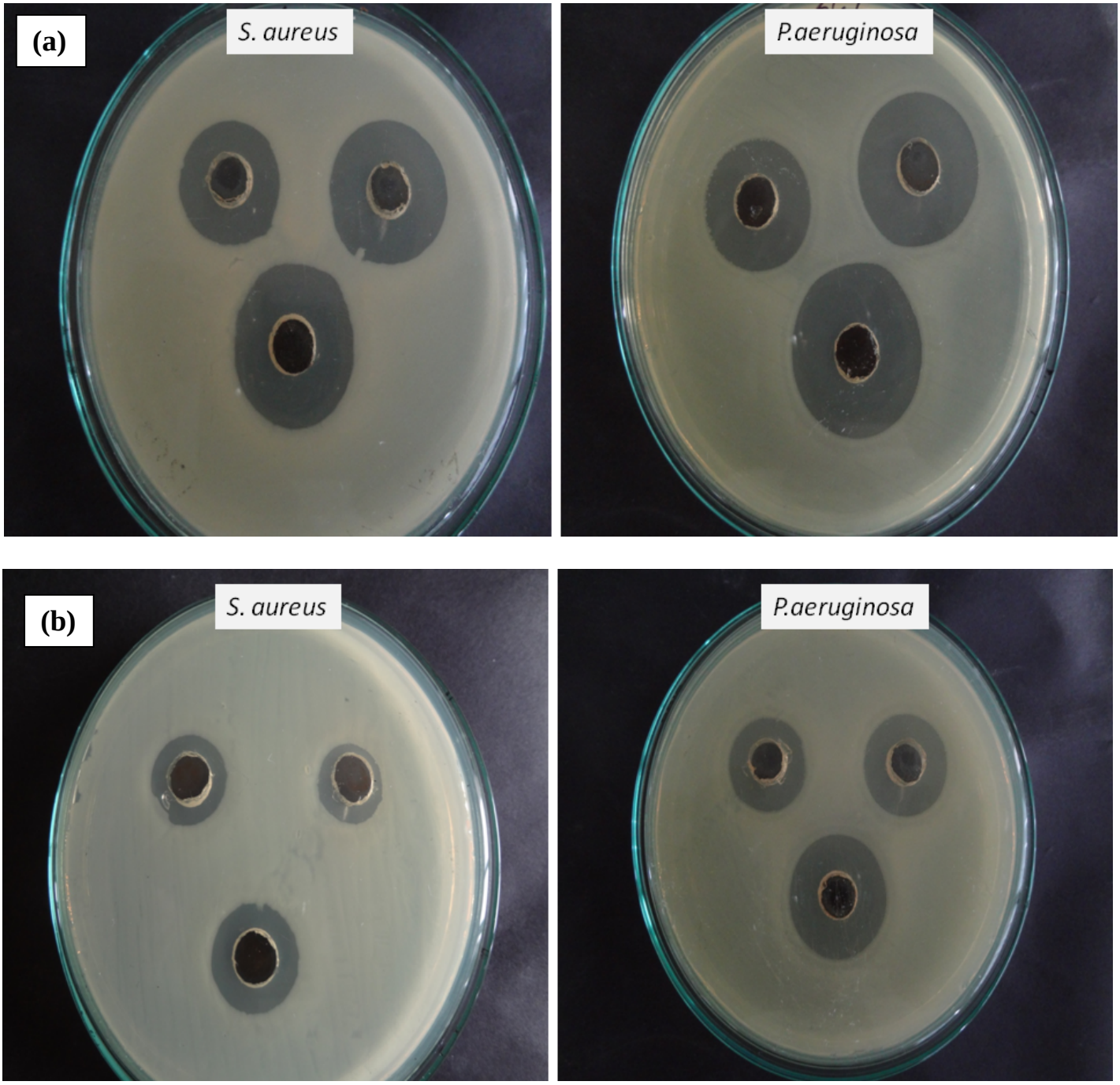

Figure S4. (a) Antibacterial activity of silver NPs synthesized from 1.0 x 10^{-3}M $AgNO_3$ (S_1) at 80 °C (b) activity of gold NPs synthesized from 1.0 x 10^{-3}M $HAuCl_4$ (G_1) at 80 °C.

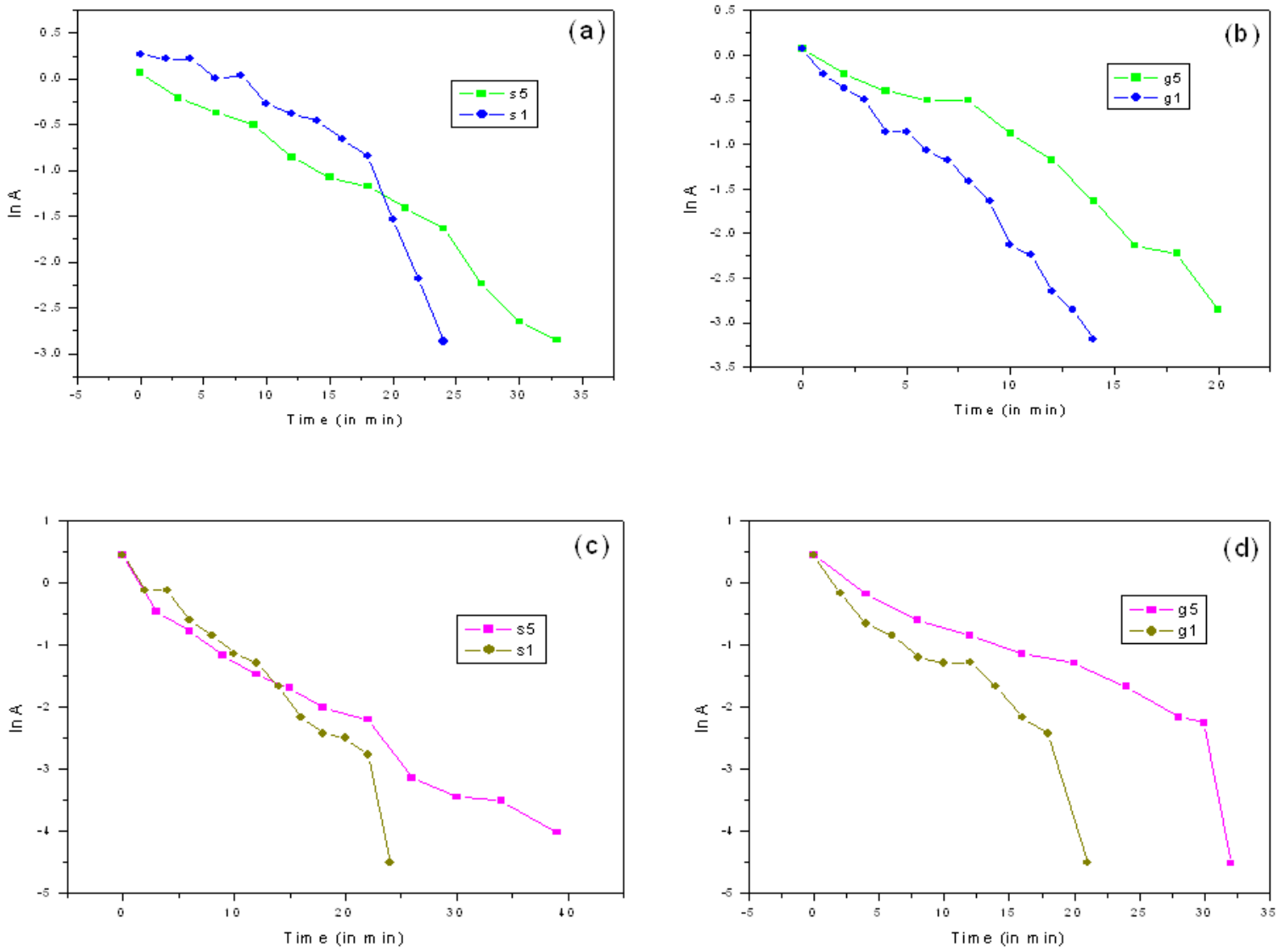

Figure S5. Comparative plots of ln (A) vs t for (a) S_5 & S_1 (b) G_5 & G_1 towards the reduction of 4-NP. Comparative plots of ln (A) vs t for (c) S_5 & S_1 (d) G_5 & G_1 towards the reduction of MB in the presence of $NaBH_4$.