

## Green synthesis and characterization of *Blumea sinuata* silver nanoparticles: antibacterial, antifungal, and antioxidant properties

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### Supplementary data:

**Table 1.** Antibacterial activity of BS-Ag<sub>2</sub>O NPs at different concentrations against *E. carotovora*, *R. solanacearum*, and *X. oryzae*.

BS-Ag <sub>2</sub> O NPs concentrations	Zone of inhibition (mm) ± SD		
	<i>E. carotovora</i>	<i>R. solanacearum</i>	<i>X. oryzae</i>
200 µg/ mL	16.00±0.0	15.66±0.5	12.66±0.5
300 µg/ mL	18.66±0.5	17.66±0.5	13.33±0.5
400 µg/ mL	20.66±0.5	20.33±0.5	14.33±0.5
Control	34.66±0.5	34.66±0.5	24.66±0.5

**Table 2.** Antifungal activity of BS-Ag<sub>2</sub>O NPs at different concentrations against *A. alternata*, *A. flavus*, *A. niger*, and *F. oxysporum*.

BS-Ag <sub>2</sub> O NPs concentrations	Percentage inhibition in fungal growth			
	<i>A. alternata</i>	<i>A. flavus</i>	<i>A. niger</i>	<i>F. oxysporum</i>
0.5 mg/ mL	79.78±1.5	24.11±2.3	45.87±5.2	35.70±0.9
1.0 mg/ mL	84.59±3.7	42.19±2.6	52.46±2.5	42.84±2.1
1.5 mg/ mL	91.70±1.7	62.65±1.8	58.96±3.5	50.45±1.5

**Table 3.** Antioxidant activity of BS-Ag<sub>2</sub>O NPs at different concentrations and ascorbic acid solution as standard following DPPH method.

BS-Ag <sub>2</sub> O NPs concentrations	DPPH	
	Ascorbic acid	BS-Ag <sub>2</sub> O NPs
20 µg/ mL	33.64±0.29	22.60±1.70
40 µg/ mL	54.79±0.14	23.11±1.31
60 µg/ mL	82.45±0.29	24.45±0.14
80 µg/ mL	93.80±0.14	25.85±0.36

**Table 4.** Antioxidant activity of BS-Ag<sub>2</sub>O NPs at different concentrations and ascorbic acid solution as standard following ABTS method.

BS-Ag <sub>2</sub> O NPs concentrations	ABTS	
	Ascorbic acid	BS-Ag <sub>2</sub> O NPs
20 µg/ mL	46.06±0.22	14.04±0.11
40 µg/ mL	99.83±0.00	25.92±1.24
60 µg/ mL	100.00±0.00	36.75±1.13
80 µg/ mL	100.00±0.00	40.28±0.90