

**Table S1**

Particle size distribution AgNPs formed after 2 hours through irradiation to light of different wavelengths (a) UV light; (b) sunlight; (c) red light; (d) yellow light; (e) green light; (f) blue light; (g) violet light; (h) diffused room light.

| Cumulative % of AgNPs <sup>a</sup> | Sunlight (nm) | Diffused room light (nm) | Red light (nm) | Yellow light (nm) | Green light (nm) | Blue light (nm) | Violet light (nm) | UV light (nm) |
|------------------------------------|---------------|--------------------------|----------------|-------------------|------------------|-----------------|-------------------|---------------|
| 5                                  | 39.49545      | 15.25425                 | 39.56097       | 59.3363           | 56.53557         | 61.19061        | 64.43262          | 13.36684      |
| 10                                 | 40.39124      | 16.01777                 | 40.52538       | 60.71933          | 58.0303          | 62.74237        | 66.01326          | 13.90695      |
| 15                                 | 41.30736      | 16.49815                 | 41.5133        | 62.13459          | 59.56455         | 64.33349        | 67.63268          | 14.3279       |
| 20                                 | 42.26438      | 16.99294                 | 42.53154       | 63.60089          | 61.07301         | 65.9286         | 69.2815           | 14.76159      |
| 25                                 | 43.26157      | 17.44447                 | 43.57665       | 65.12216          | 62.61436         | 67.55385        | 70.96482          | 15.12099      |
| 30                                 | 44.28228      | 17.84809                 | 44.64744       | 66.67982          | 64.19462         | 69.21916        | 72.68903          | 15.47196      |
| 35                                 | 45.35221      | 18.26104                 | 45.80247       | 68.28239          | 65.88935         | 70.99333        | 74.50038          | 15.83106      |
| 40                                 | 46.55094      | 18.68355                 | 47.03227       | 70.11051          | 67.65998         | 72.88085        | 76.48441          | 16.19988      |
| 45                                 | 47.78136      | 19.13835                 | 48.29508       | 71.98758          | 69.4782          | 74.81855        | 78.52128          | 16.60568      |
| 50                                 | 49.09593      | 19.61915                 | 49.72509       | 73.9149           | 71.53989         | 76.95418        | 80.67902          | 17.02164      |
| 55                                 | 50.63486      | 20.11202                 | 51.27617       | 76.26645          | 73.75404         | 79.33461        | 83.21463          | 17.44803      |
| 60                                 | 52.22203      | 20.62015                 | 52.91247       | 78.70602          | 76.06568         | 81.78867        | 85.82993          | 17.94619      |
| 65                                 | 54.13593      | 21.27878                 | 54.92592       | 81.47501          | 78.94461         | 84.80283        | 88.89913          | 18.51429      |
| 70                                 | 56.24255      | 21.95845                 | 57.02919       | 84.75382          | 81.9325          | 88.03941        | 92.3904           | 19.10037      |
| 75                                 | 58.85243      | 22.7313                  | 59.78595       | 88.51522          | 85.82251         | 92.06915        | 96.51621          | 19.93566      |
| 80                                 | 61.88268      | 23.84799                 | 63.01793       | 93.19263          | 90.28088         | 96.64149        | 101.4781          | 20.89299      |
| 85                                 | 66.02503      | 25.2372                  | 67.18957       | 99.45879          | 96.14025         | 103.0771        | 108.2517          | 22.41748      |
| 90                                 | 71.89626      | 27.3137                  | 73.39293       | 108.3274          | 104.6278         | 112.0465        | 117.7745          | 24.91684      |
| 95                                 | 82.75796      | 31.32737                 | 84.21648       | 124.2684          | 120.2684         | 128.2963        | 134.8665          | 47.35926      |
| 100                                | 502.282       | 325.1392                 | 502.282        | 718.7347          | 661.3052         | 610.3545        | 662.6777          | 681.7233      |

(<sup>a</sup> Percentage of AgNPs whose size is equal to or less than corresponding size value)

