nanomaterials

MDPI

Supplementary Materials

Thermally Stable Magneto-Plasmonic Nanoparticles for SERS with Tunable Plasmon Resonance

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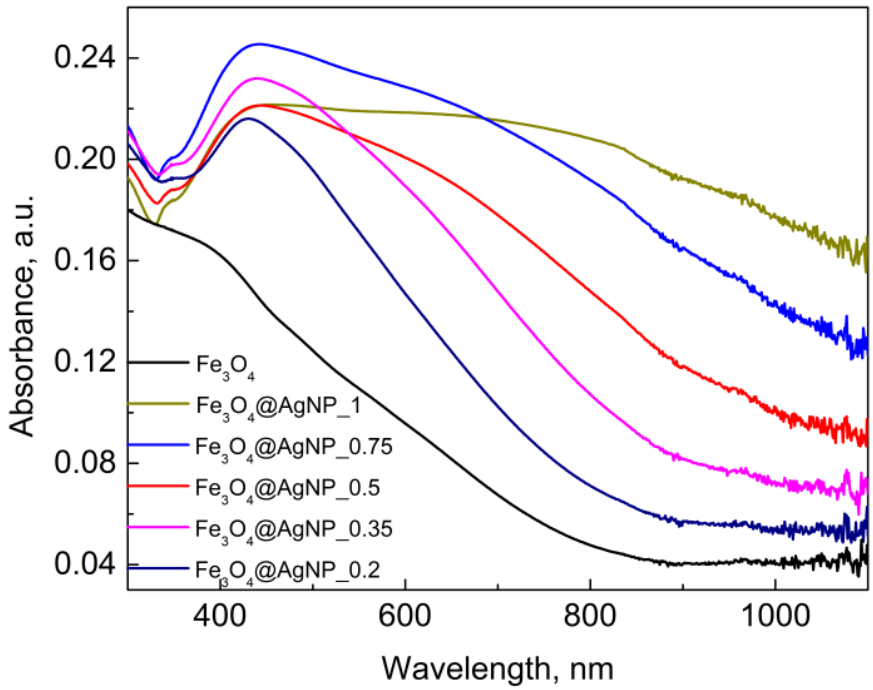

Figure S1. Absorption spectra of all prepared samples: magnetite (black), magnetite decorated with various amount of silver nanoparticles: 100% (dark yellow), 75% (blue), 50% (red), 35% (magenta), and 20% (dark blue).

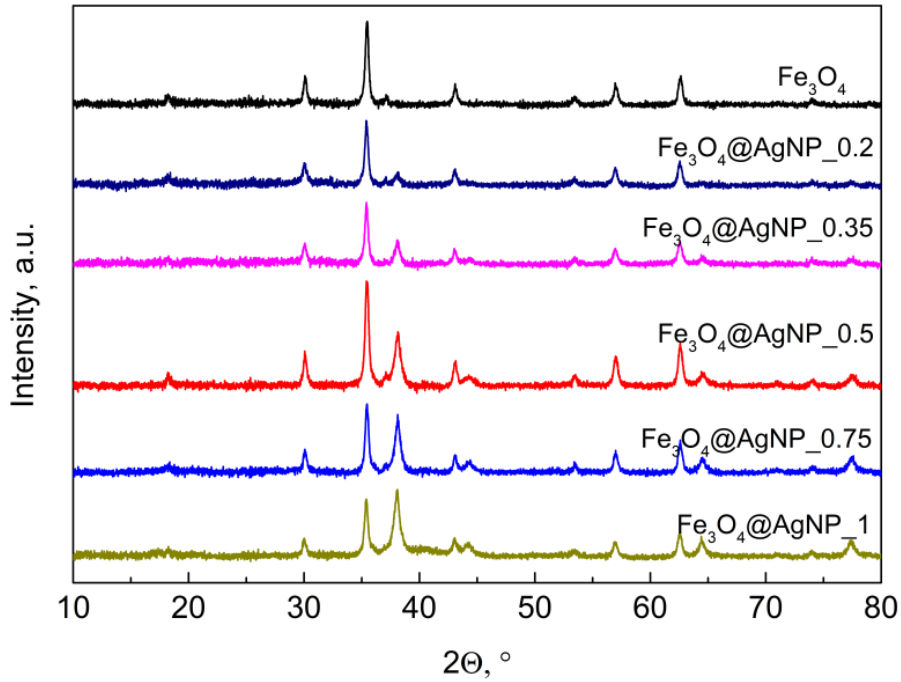

Figure S2. XRD diffractograms of all prepared samples: magnetite (black), magnetite decorated with various amount of silver nanoparticles: 100% (dark yellow), 75% (blue), 50% (red), 35% (magenta), and 20% (dark blue).

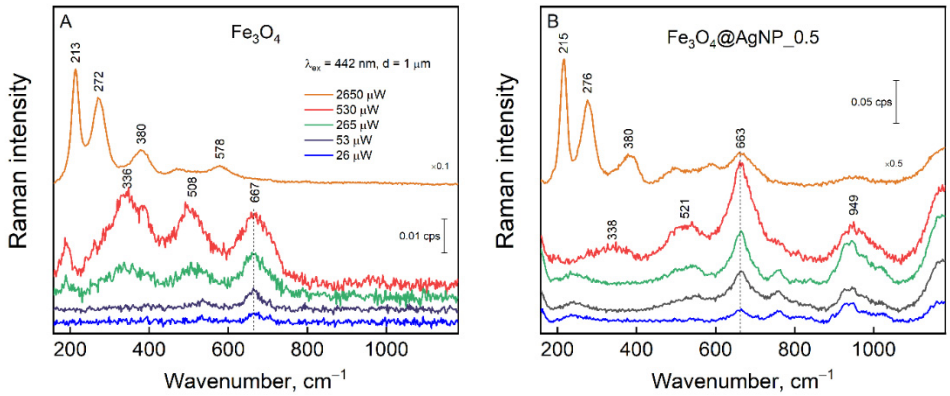

Figure S3. Raman spectra of **(A)** magnetite nanoparticles and **(B)** composite magnetite-silver nanoparticles (Fe_3O_4@AgNP_0.5) at varied laser powers from 0.026 mW to 2.65 mW. The 442 nm laser radiation was focused to a spot of 1 μm in diameter on the dried nanoparticle samples.

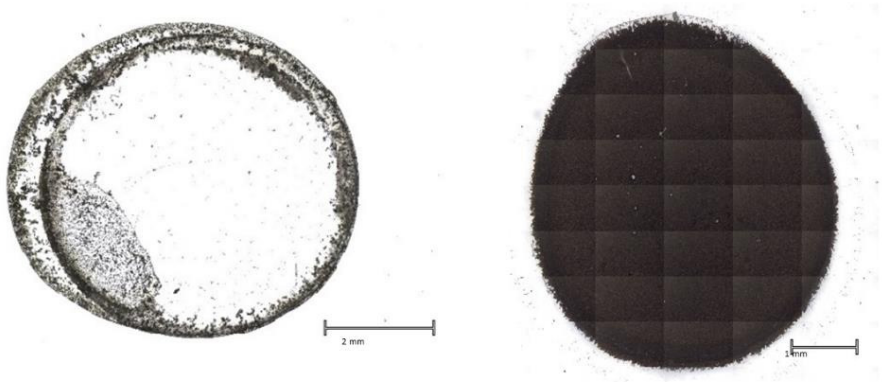

Figure S4. Microscope images of AgNPs (left) and Fe_3O_4@AgNP_0.5 (right) drops dried on a glass slide. Fe_3O_4@AgNP_0.5 was dried under strong magnetic field.