Electronic Supplementary Material (ESI) for Analyst.

Supplementary Information for Ag-molecularly Imprinted Polymer Composite for Efficient Surface-enhanced Raman Scattering Activities under Low-energy Laser

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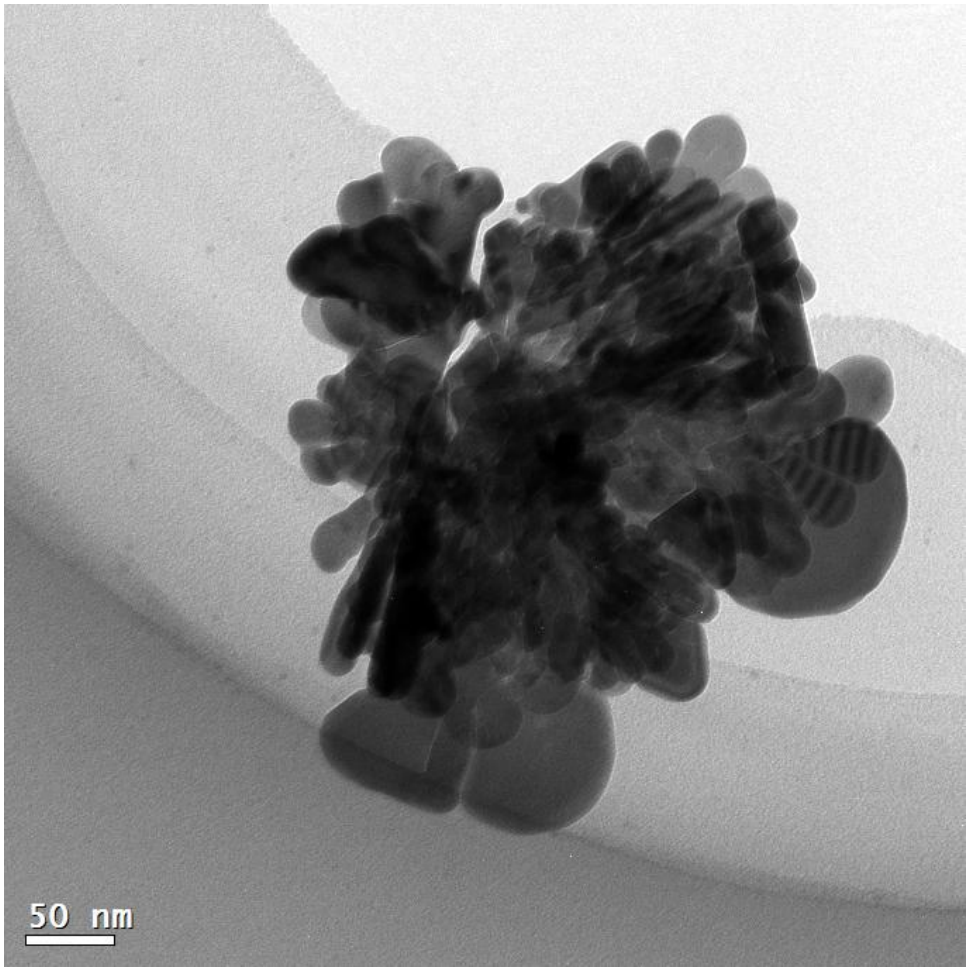

Fig.S1 TEM image of Ag.

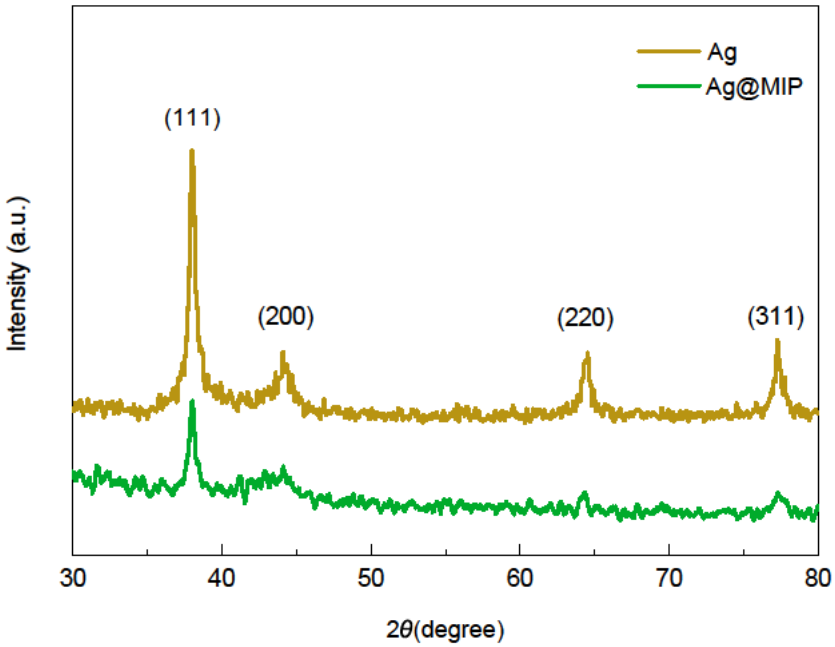

Figure S2 The X-ray powder diffraction (XRD) patterns of the Ag and Ag@MIP. The four distinct diffraction peaks at 2θ = 38.08°, 44.18°, 64.35°and 77.22°can be corresponding to the (111), (200), (220), and (311) crystal planes of face-center-cubic (fcc) Ag, respectively. A dominant diffraction peak at 2θ = 38.08° means that the (111) plane is the preferable growth direction. For Ag@MIP, the diffraction intensity of these four peaks significantly reduced.

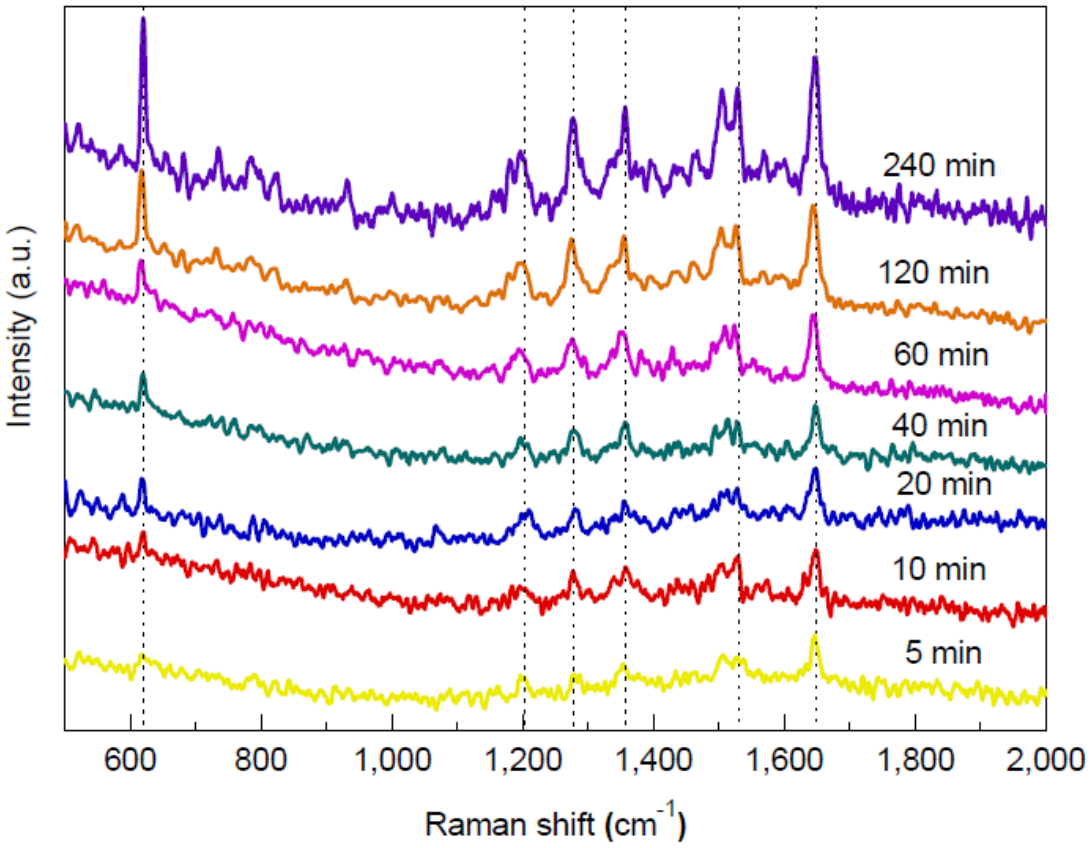

Figure S3 Time-dependent SERS spectra showing RhB detection. Full spectra at 5min (yellow), 10min (red), 20min (blue), 40min (green), 60min (pink), 120min (golden yellow), and 240min (purple) show increasing SERS intensity over incubation time of Ag@MIP. All spectra were recorded at 633 nm excitation with a laser power of 140 nW.

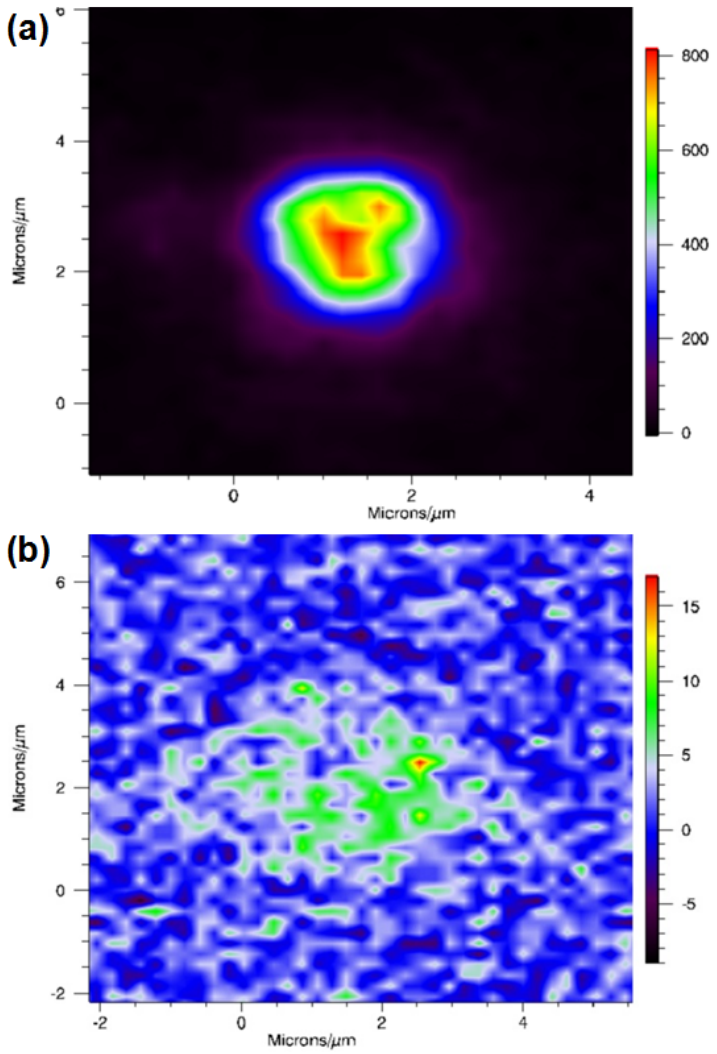

Figure S4 The Raman images of Ag@MIP (a) and Ag particles (b) at 1647 cm^{-1} peak with the excitation power of 0.69 μW.