

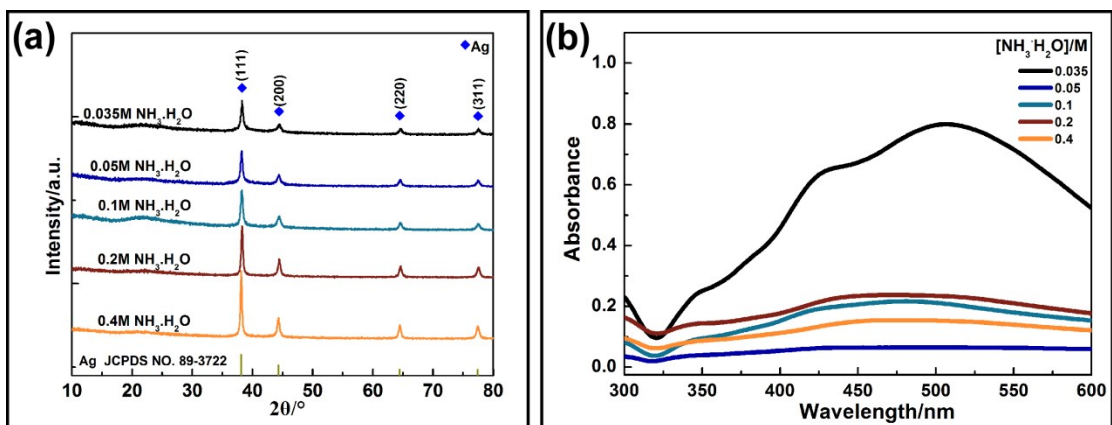
# Controlling Silver Morphology on Cramped Optical Fiber Facet by PVP-assisted Silver Mirror Reaction for SERS Fiber Probe Fabrication

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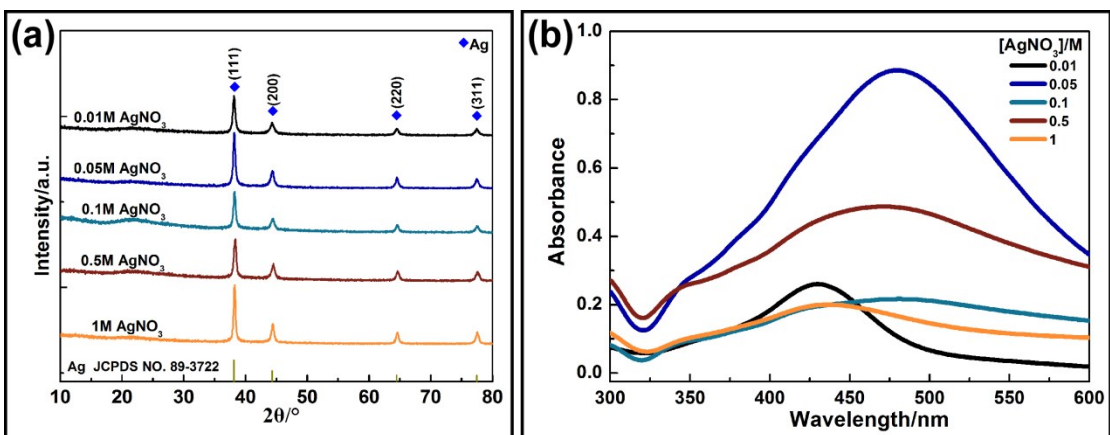
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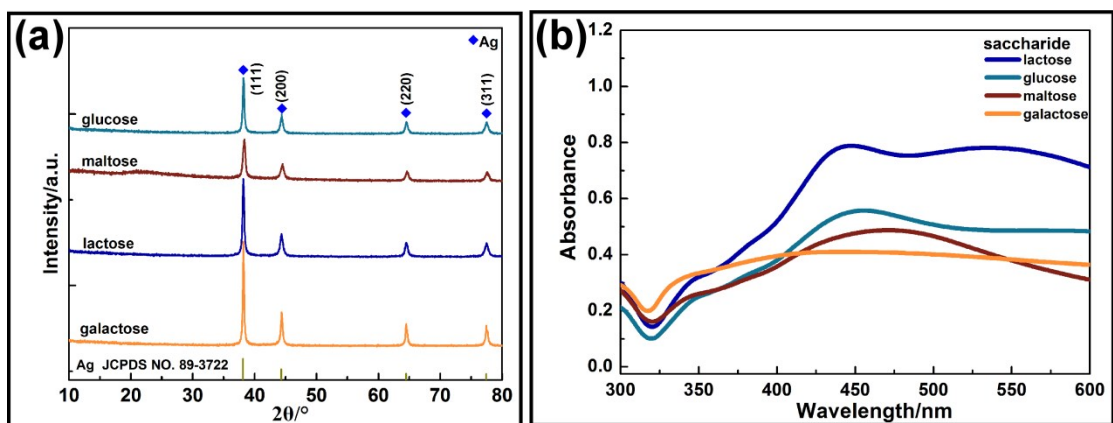
1. XRD patterns and absorption spectra from ammonium hydroxide concentration experiments S2
2. XRD patterns and absorption spectra from silver nitrate concentration experiments S3
3. XRD patterns and absorption spectra from reducing saccharides experiments S4
4. XRD patterns and absorption spectra from pH values of Tollens solution experiments S5



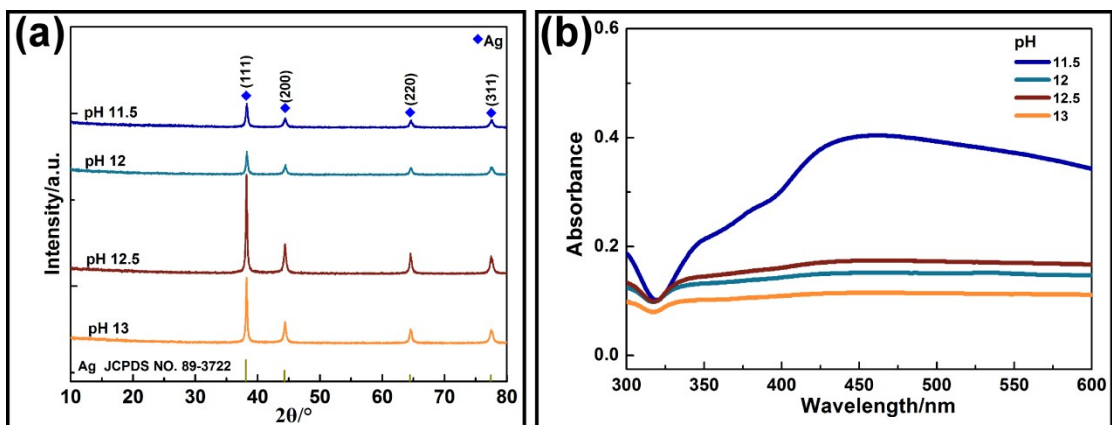
**Fig. S1.** XRD patterns (a) and UV-VIS absorption spectra (b) of silver synthesized with different concentrations of ammonium hydroxide (0.035, 0.05, 0.1, 0.2 and 0.4 mol/L).



**Fig. S2.** XRD patterns (a) and UV-VIS absorption spectra (b) of silver synthesized with different concentrations of silver nitrate (0.01, 0.05, 0.1, 0.5 and 1 mol/L).



**Fig. S3.** XRD patterns (a) and UV-VIS absorption spectra (b) of silver synthesized with different reducing saccharides (glucose, maltose, lactose and galactose).



**Fig. S4.** XRD patterns (a) and UV-VIS absorption spectra (b) of silver synthesized with different pH values of Tollens solution (11.5, 12, 12.5 and 13).