

Fig S1. Raman spectra of R6G with a concentration of 10^{-2} M .

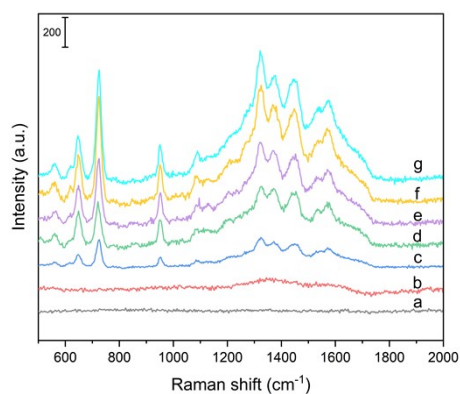


Fig.S2. SERS spectra of blank Ag NPs-filter paper substrate (a), Raman spectra of *S.aureus*(b) and SERS spectra of *S.aureus* with concentration of 10^2 CFU/mL(c), 10^3 CFU/mL(d), 10^4 CFU/mL(e), 10^5 CFU/mL(f), 10^6 CFU/mL(g).

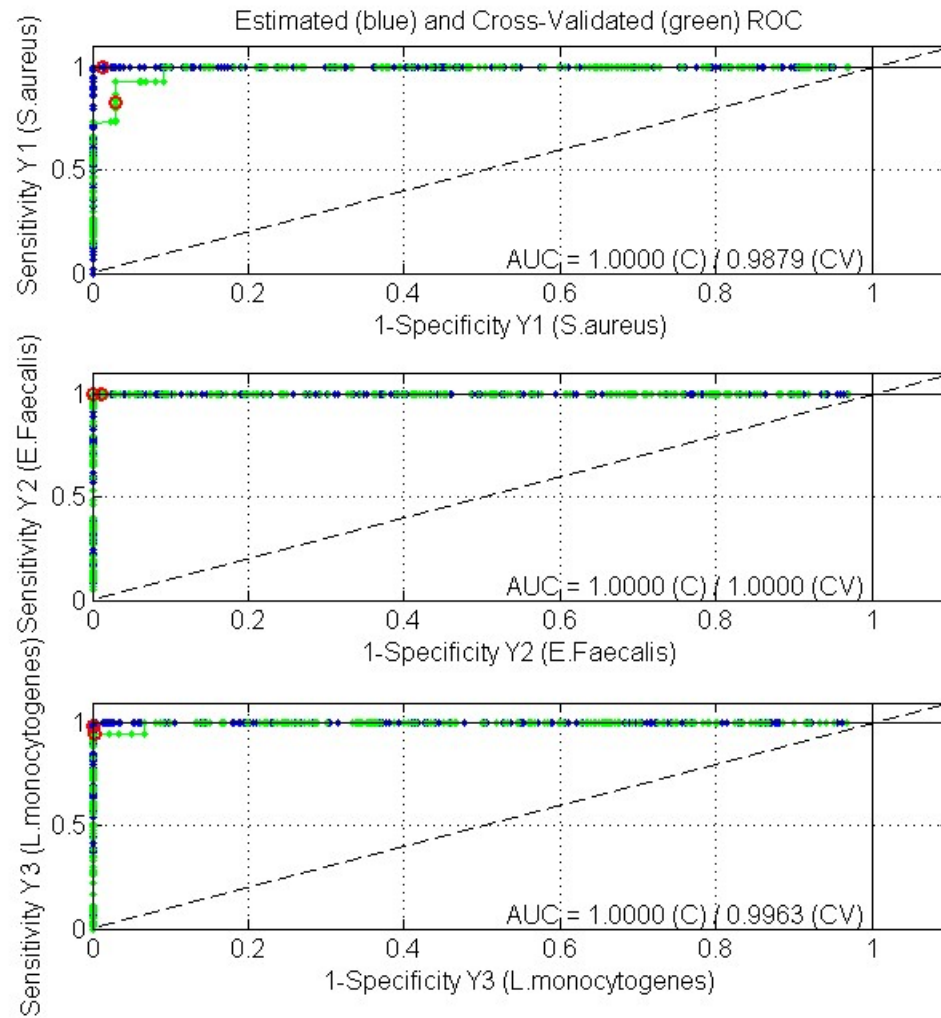


Fig.S3. ROC curves of discrimination results for three bacterial species generated from the PLS-DA analysis.