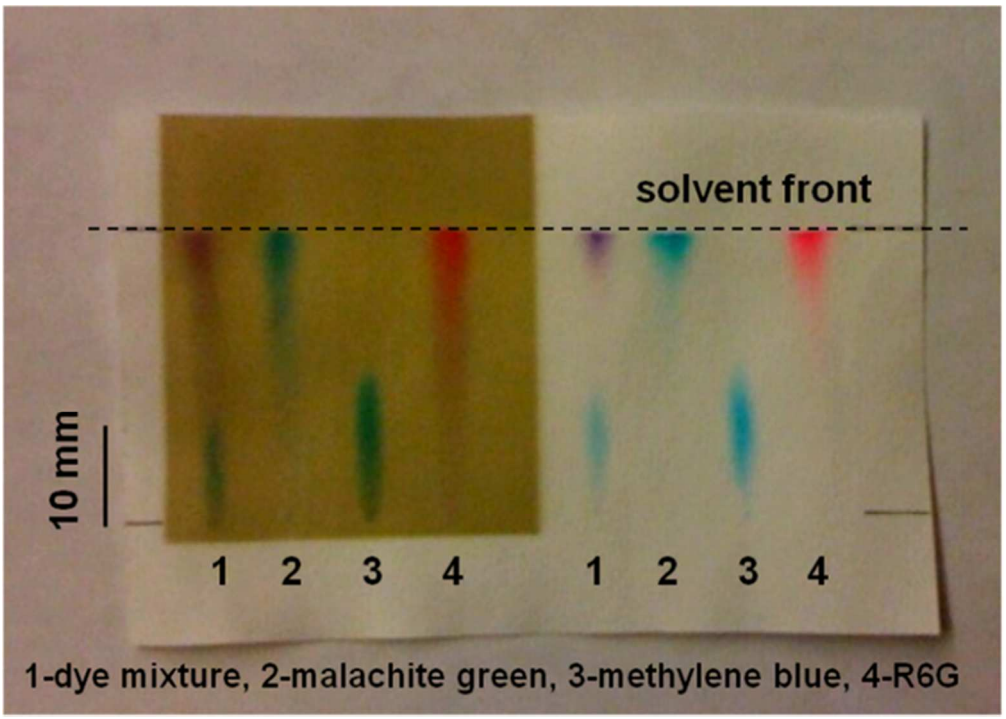

Fig. S1. Comparison of chromatographic separation of individual dyes and dye mixture using paper and a printed paper SERS substrate. Note that there is no difference in the retention factor (Rf) for the dyes, but there is visibly more tailing of the dyes on the paper SERS chromatogram. This is due to the adhesion of the dyes to the silver nanoparticles.
58x41mm (300 x 300 DPI)

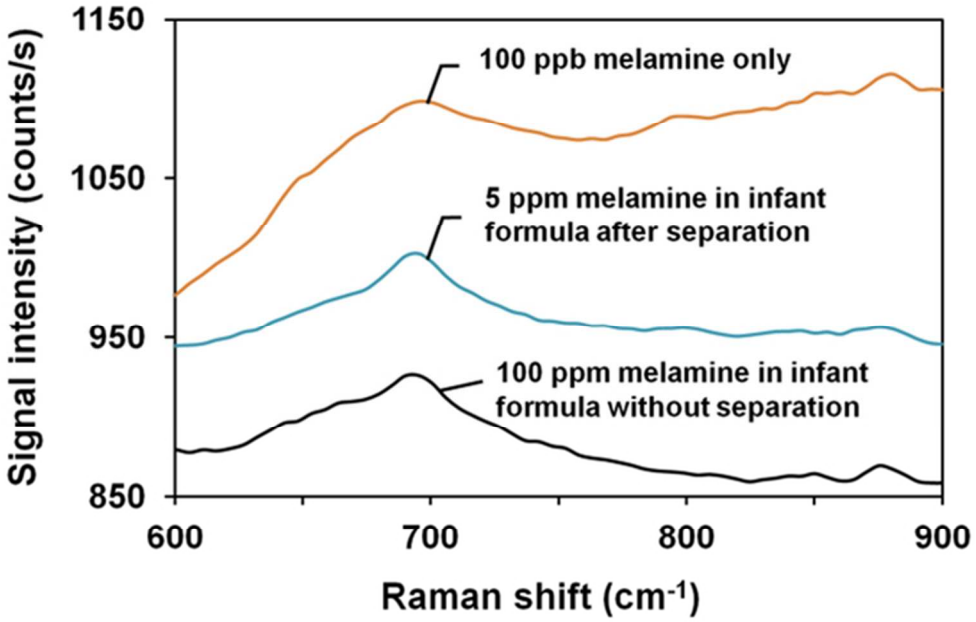

Fig. S2. Detection limit of melamine using printed PVDF SERS membranes: 100 ppb melamine in 1% HCl only (top), 5 ppm melamine in infant formula after performing chromatographic separation (middle), and 100 ppm melamine in infant formula without any separation.
58x41mm (300 x 300 DPI)