

Analytical Methods

Electronic Supplementary Information (ESI)

Quantification of Cocaine, and Its Adulterants (Lidocaine and Levamisole) using Dragendorff Reagent allied to Paper Spray Ionization Mass Spectrometry

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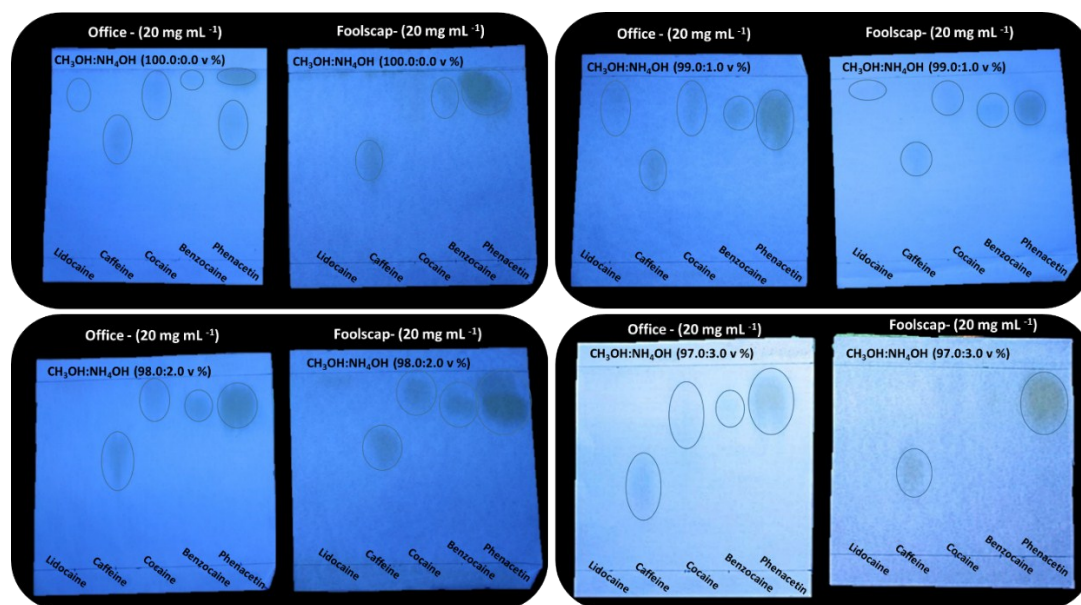


Fig. S1 Paper chromatography with office-type and foolscap-type papers using a mixture of $\text{CH}_3\text{OH}:\text{NH}_4\text{OH}$ at 100.0:0.0; 99.0:1.0; 98.0:2.0 or 97.0:3.0 v/v% and revealed with an ultraviolet (UV) chamber at 254 nm.

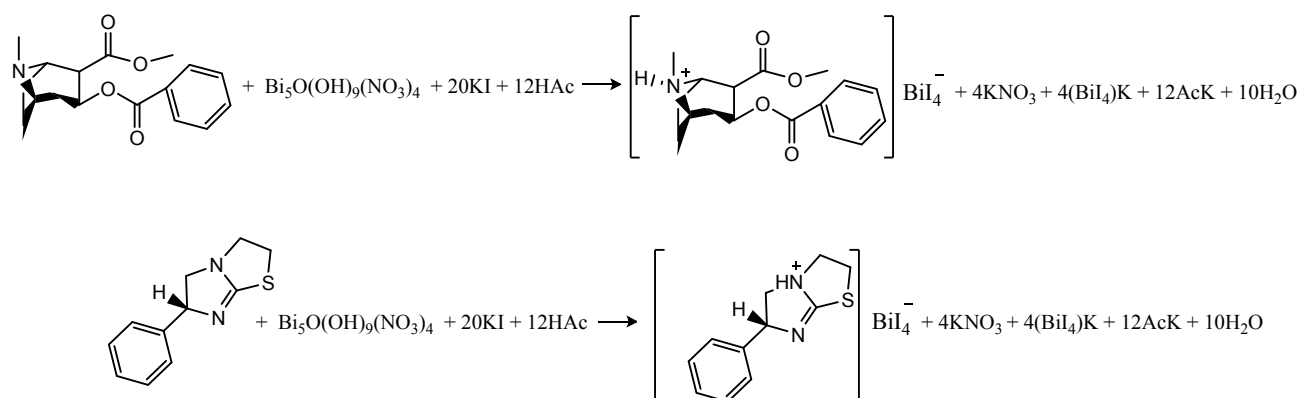
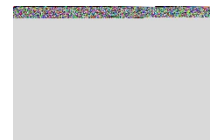


Fig. S2 Proposed reactions between cocaine and levamisole with Dragendorff reagent.



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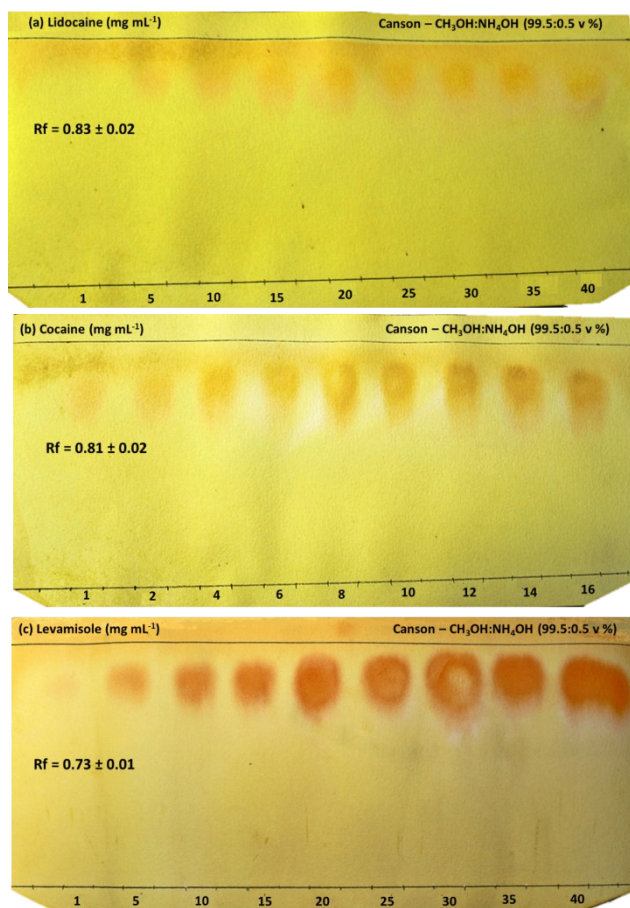


Fig. S3 Chromatograms for lidocaine, cocaine and levamisole samples using Canson-type paper as a function of analyte concentration revealed with Dragendorff reagent.

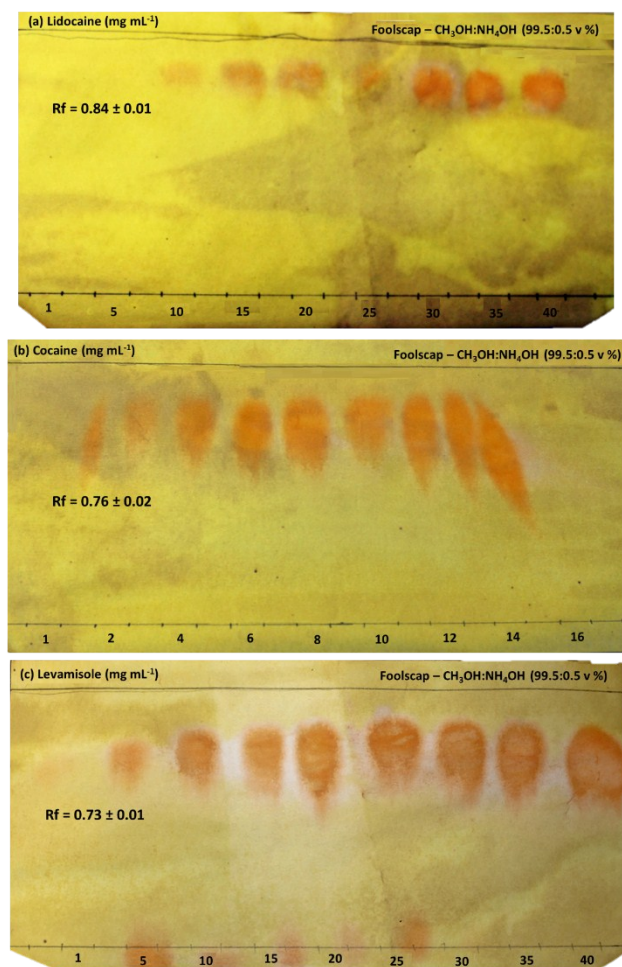


Fig. S4 Chromatograms for lidocaine, cocaine and levamisole samples using foolscap-type paper as a function of analyte concentration revealed with Dragendorff reagent.

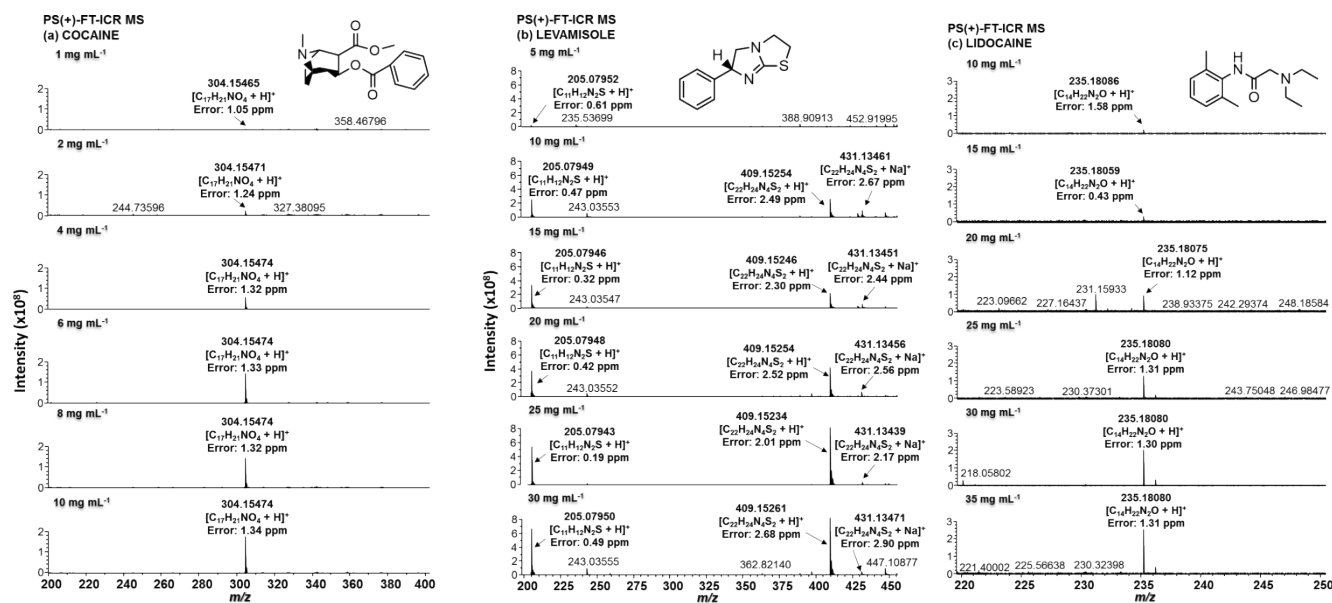


Fig. S5 PS(+) mass spectra of the (a) cocaine, (b) levamisole and (c) lidocaine standards at different concentrations: from 1.0 to 10.0 mg mL⁻¹ for cocaine, from 5.0 to 30.0 mg mL⁻¹ for levamisole and from 10.0 to 35.0 mg mL⁻¹ for lidocaine.

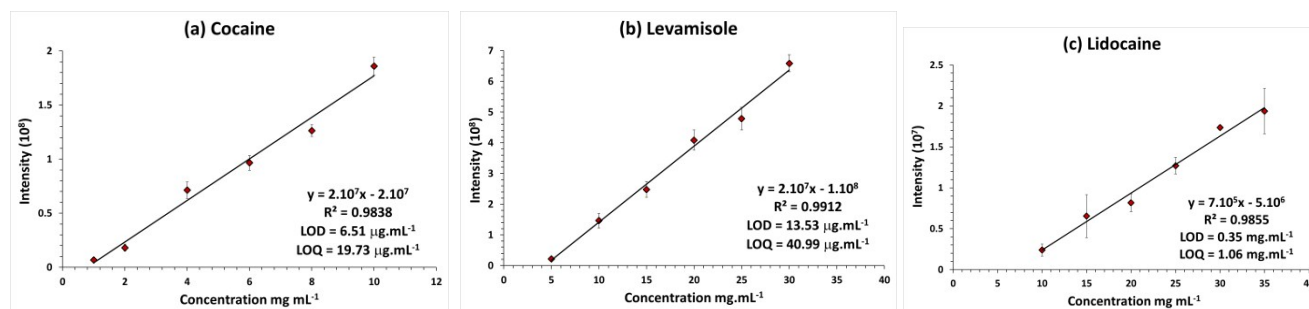


Fig. S6 Calibration curves for (a) cocaine, (b) levamisole and (c) lidocaine obtained from PS(+)MS analysis.