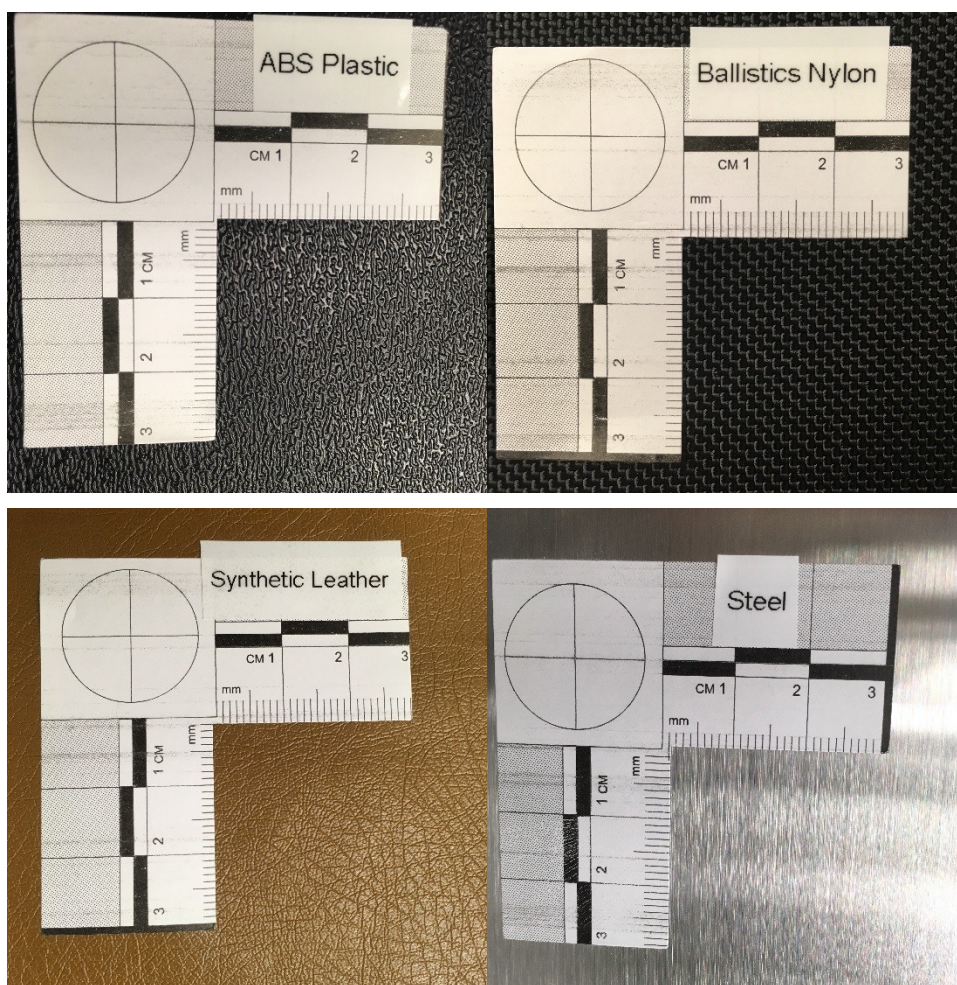


# Supporting Information for: A New Wipe-Sampling Instrument for Measuring the Collection Efficiency of Trace Explosives Residues

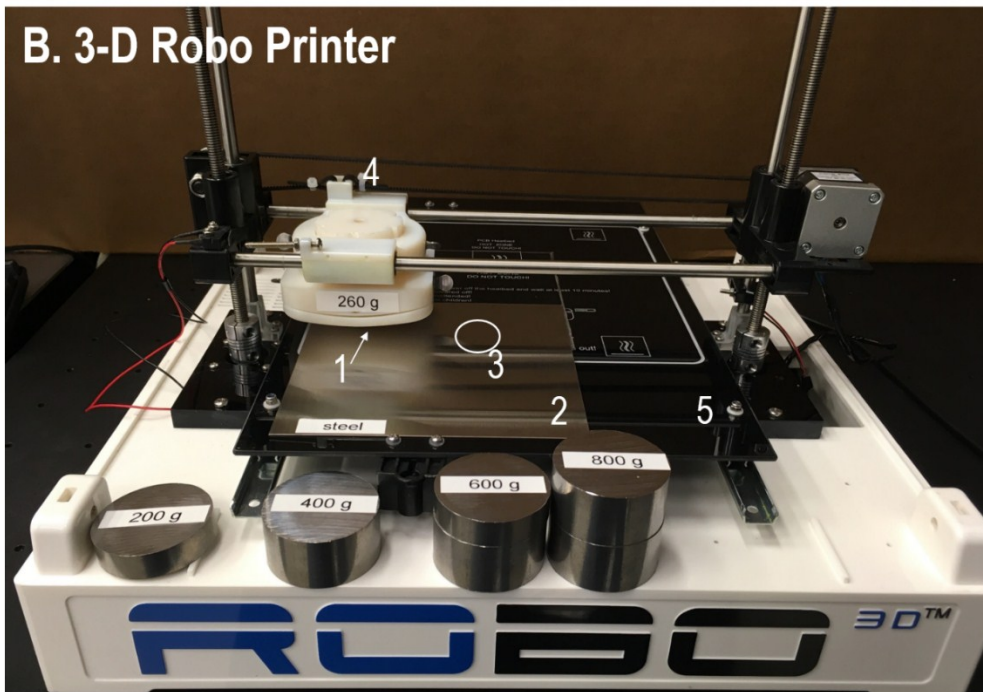
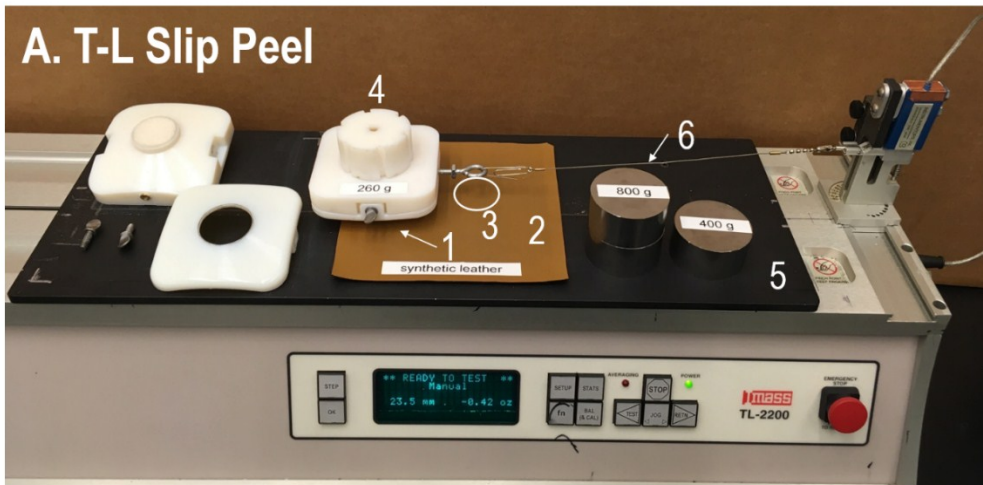
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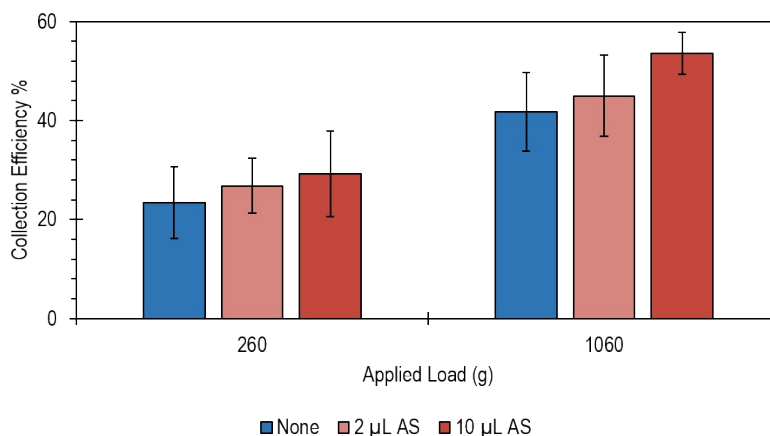


**Figure S1.** Images of ABS plastic with industry standard textured hair-cell finish, ballistics nylon, synthetic leather, and steel test surfaces.



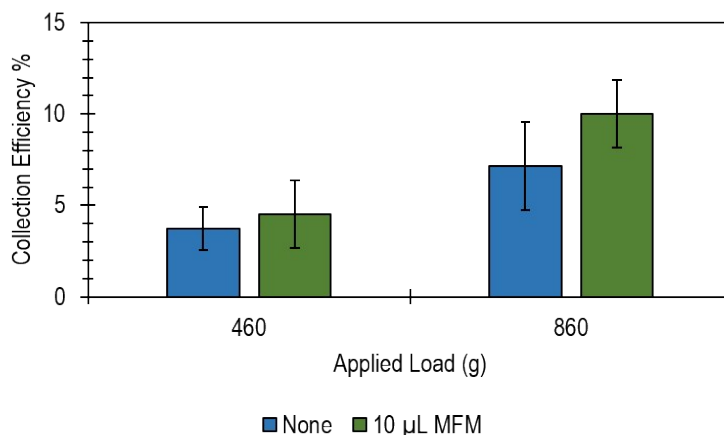
- 1. Wipe
- 2. Test surface
- 3. Test particles
- 4. Wipe holder
- 5. Platform
- 6. Restraining line

**Figure S2.** Wipe-sampling instruments: Image of the TL-slip/peel tester (A.) with wipe mount and synthetic leather test surface. Image of the Robo3D (B.) with wipe mount and steel test surface.



**Figure S3.** Comparison of collection efficiencies of RDX using Nomex® wipes and the Robo3D wipe-sampler for ABS plastic test surface conditions: artificial sebum not added (None), addition of 2  $\mu$ L of artificial sebum (2  $\mu$ L AS), addition of 10  $\mu$ L of artificial sebum (10  $\mu$ L AS). Uncertainties represent one standard deviation of the mean.

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**Figure S4.** Comparison of collection efficiencies of RDX using Teflon wipes and the Robo3D wipe-sampler for ABS plastic test surface conditions: modified fingerprint mixture not added (None), addition of 10  $\mu$ L of modified fingerprint mixture (10  $\mu$ L MFM). Uncertainties represent one standard deviation of the mean.

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