Journal of COMPUTER AND FORENSIC SCIENCES

CFS 2026, Vol. 5, Issue 2
https://doi.org/10.5937/jcfs5-69092
Supplementary Materials for
Original research paper

Recycled PET-Derived Powders as Sustainable Materials for Latent Fingerprint Development

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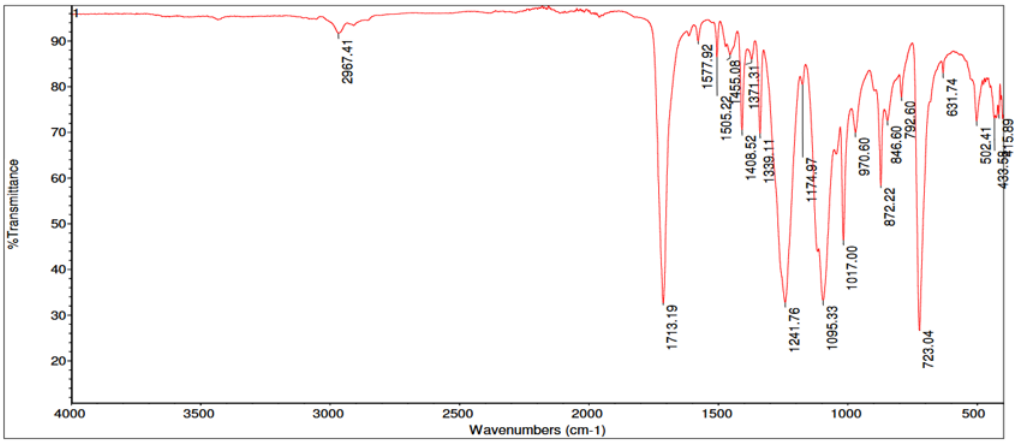
Received: July 9, 2026 • Accepted: September 14, 2026 • Published: October 23, 2026



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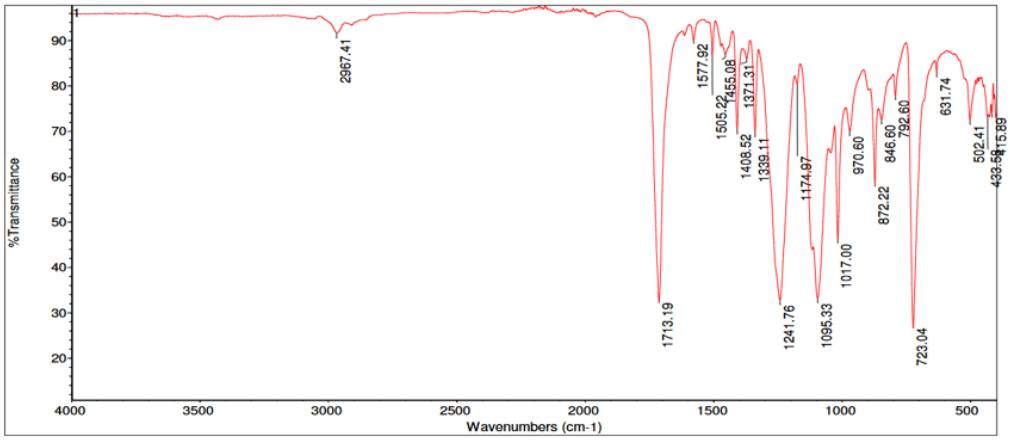
Position:	433.58	Intensity:	73.080
Position:	502.41	Intensity:	72.531
Position:	631.74	Intensity:	83.060
Position:	723.04	Intensity:	26.610
Position:	792.60	Intensity:	77.767
Position:	846.60	Intensity:	72.617

Figure S1: *FTIR spectrum of green PET material, used to obtain* $U_{1.}$



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Position:	723.04	Intensity:	26.610
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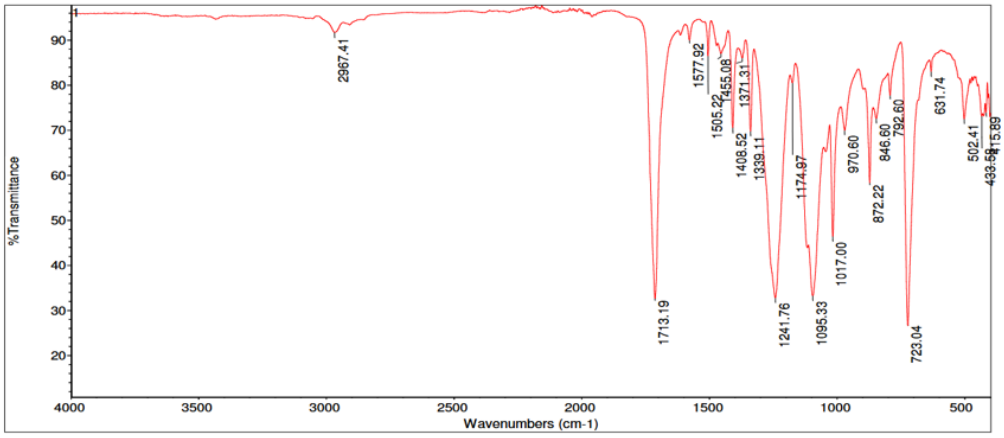
Position:	846.60	Intensity:	72.617

Figure S2: *FTIR spectrum of transparent PET material, used to obtain* $U_{2.}$



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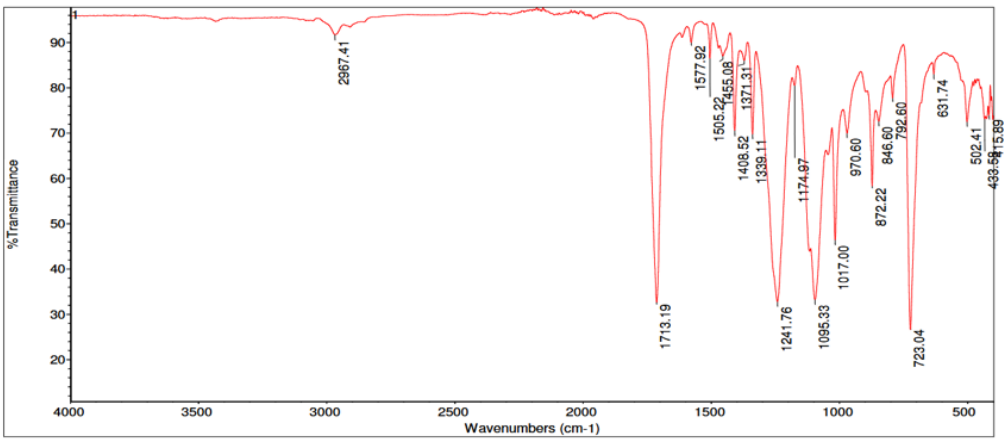
Position:	631.74	Intensity:	83.060
Position:	723.04	Intensity:	26.610
Position:	792.60	Intensity:	77.767
Position:	846.60	Intensity:	72.617

Figure S3: *FTIR spectrum of blue PET material, used to obtain* U_3.



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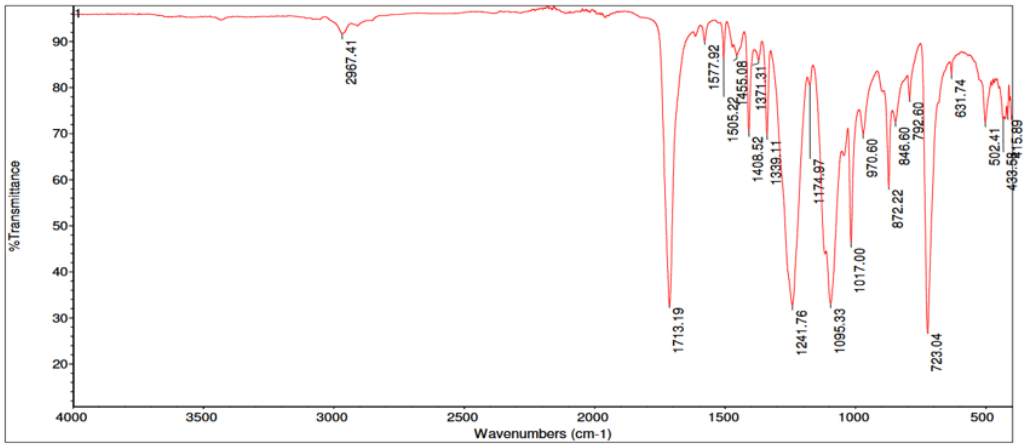
Position:	631.74	Intensity:	83.060
Position:	723.04	Intensity:	26.610
Position:	792.60	Intensity:	77.767
Position:	846.60	Intensity:	72.617

Figure S4: *FTIR spectrum of* U_1 *sample.*



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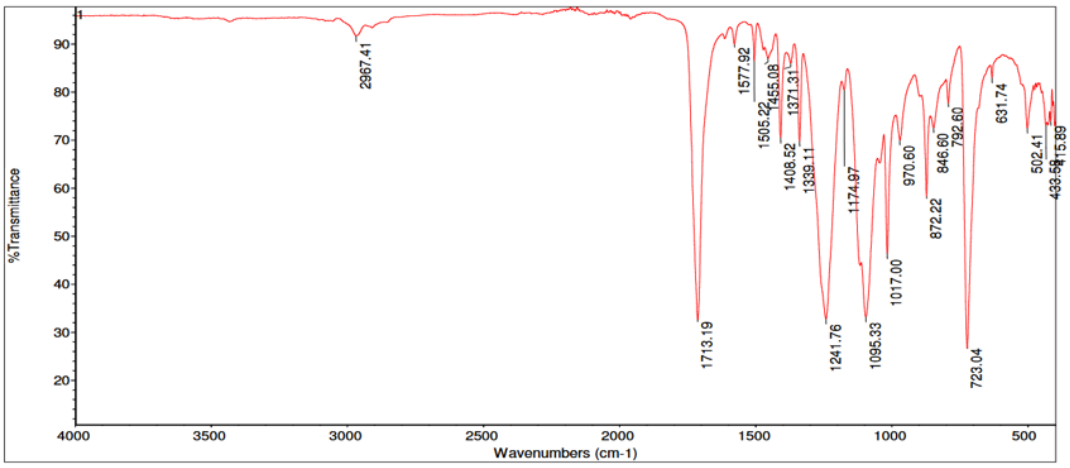
Position:	723.04	Intensity:	26.610
Position:	792.60	Intensity:	77.767
Position:	846.60	Intensity:	72.617

Figure S5: *FTIR spectrum of U_2 sample.*



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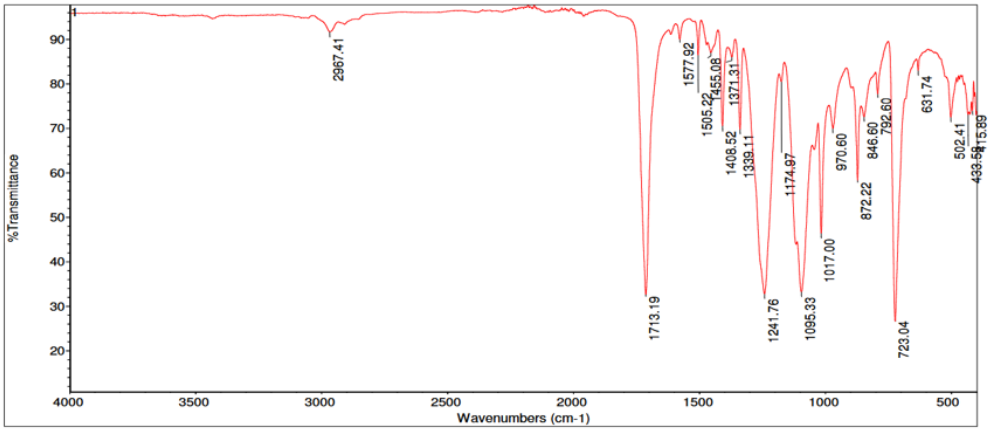
Position:	631.74	Intensity:	83.060
Position:	723.04	Intensity:	26.610
Position:	792.60	Intensity:	77.767
Position:	846.60	Intensity:	72.617

Figure S6: *FTIR spectrum of U_3 sample.*



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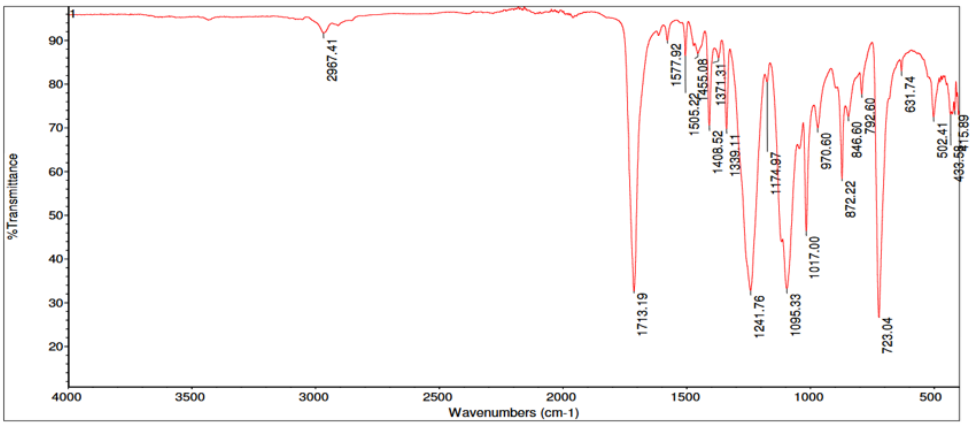
Position:	723.04	Intensity:	26.610
Position:	792.60	Intensity:	77.767
Position:	846.60	Intensity:	72.617

Figure S7: *FTIR spectrum of zinc acetate.*



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Position:	723.04	Intensity:	26.610
Position:	792.60	Intensity:	77.767
Position:	846.60	Intensity:	72.617

Figure S8: *FTIR spectrum of ethylene glycol.*

Figures S9–S32 show the fingerprints of three donors, developed using U_1, U_2, and U_3 samples on day 0, day 1, day 7, and day 30; each set of prints is presented using both bright-field and dark-field microscopy techniques.

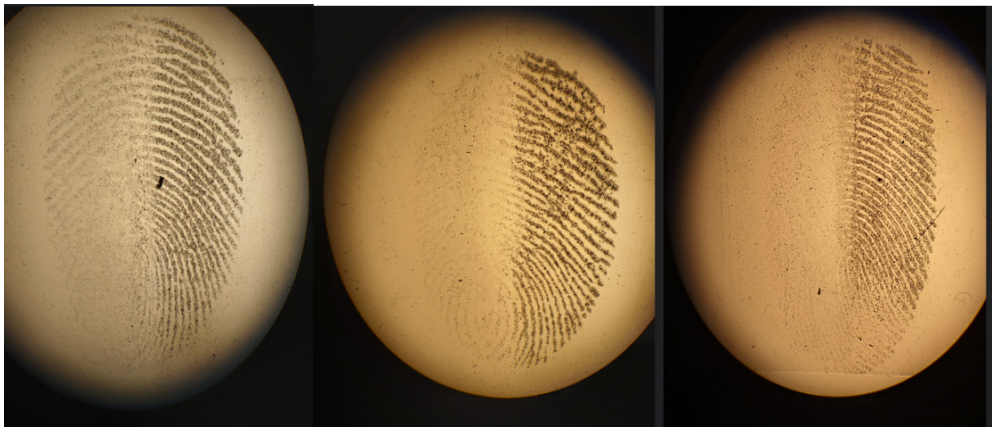

Figure S9: *Fingerprints of three donors with U_1 sample, day 0, using the bright-field contrast technique.*



Figure S10: *Fingerprints of three donors with U_1 sample, day 0, using the dark-field contrast technique.*



Figure S11: *Fingerprints of three donors with U_2 sample, day 0, using the bright-field contrast technique.*

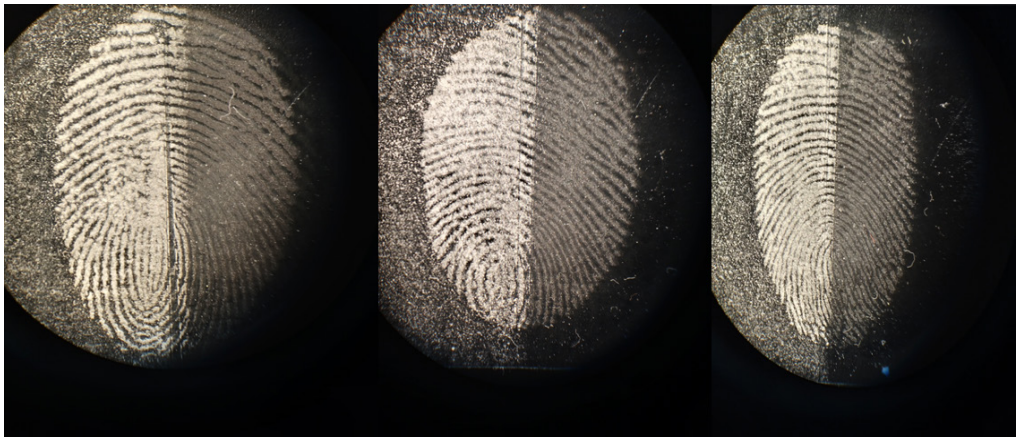

Figure S12: *Fingerprints of three donors with U_2 sample, day 0, using the dark-field contrast technique.*

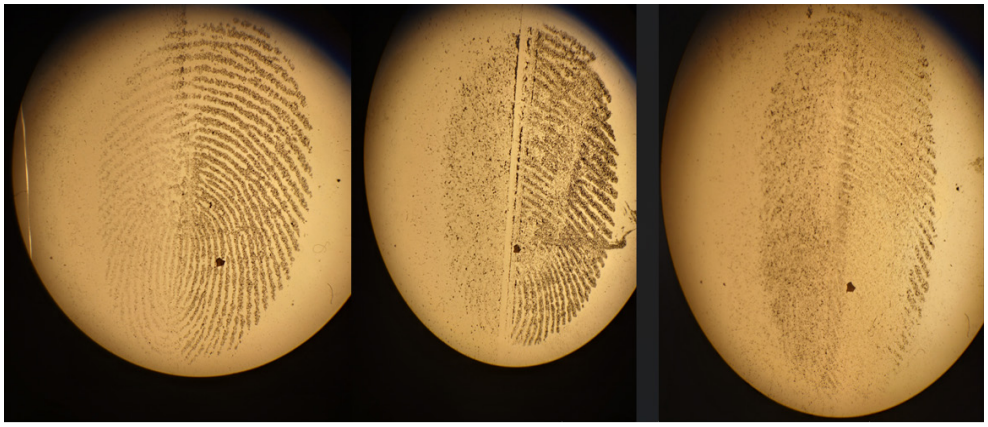

Figure S13: *Fingerprints of three donors with U_3 sample, day 0, using the bright-field contrast technique.*

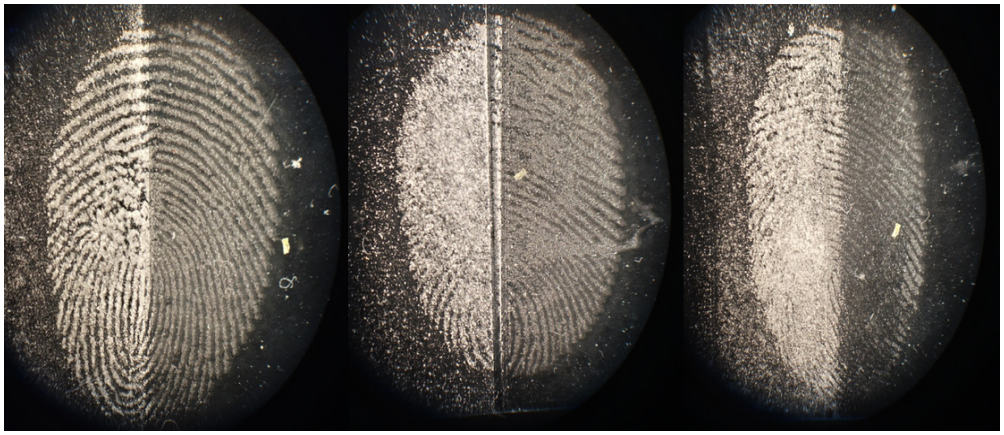

Figure S14: *Fingerprints of three donors with U_3 sample, day 0, using the dark-field contrast technique.*

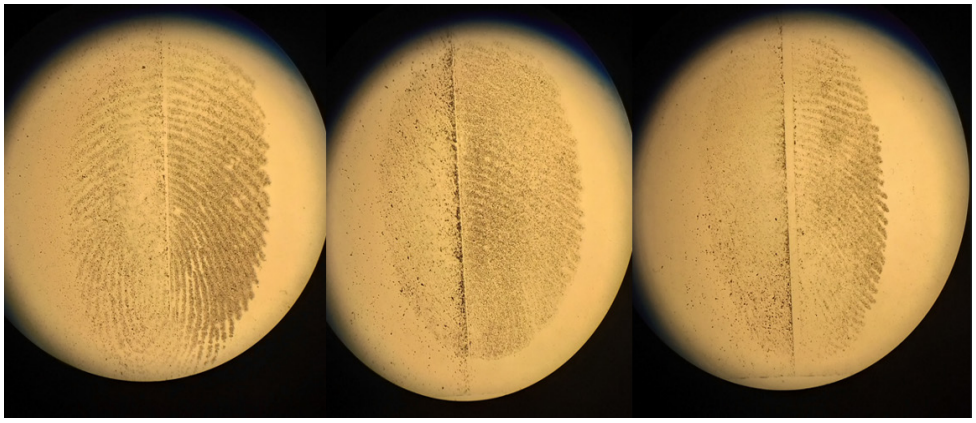

Figure S15: *Fingerprints of three donors with U_1 sample, day 1, using the bright-field contrast technique.*

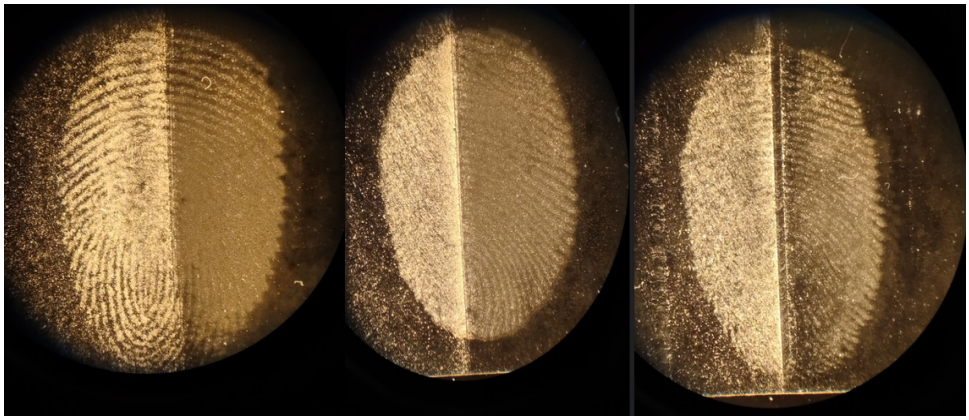

Figure S16: *Fingerprints of three donors with U_1 sample, day 1, using the dark-field contrast technique.*

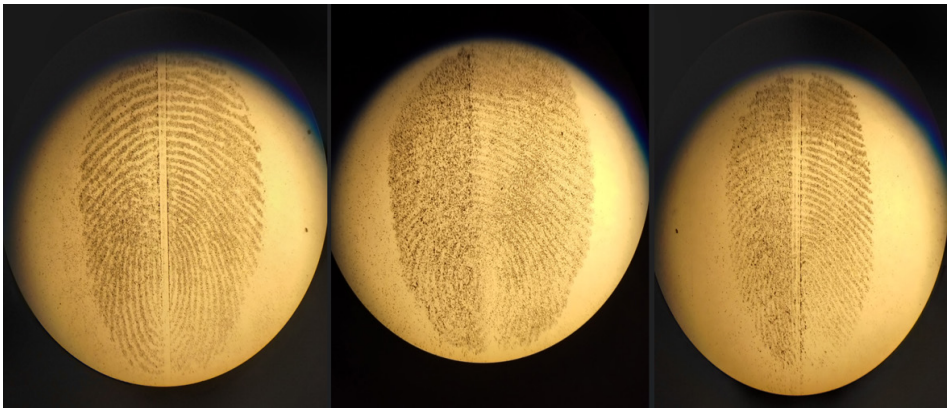

Figure S17: *Fingerprints of three donors with U_2 sample, day 1, using the bright-field contrast technique.*

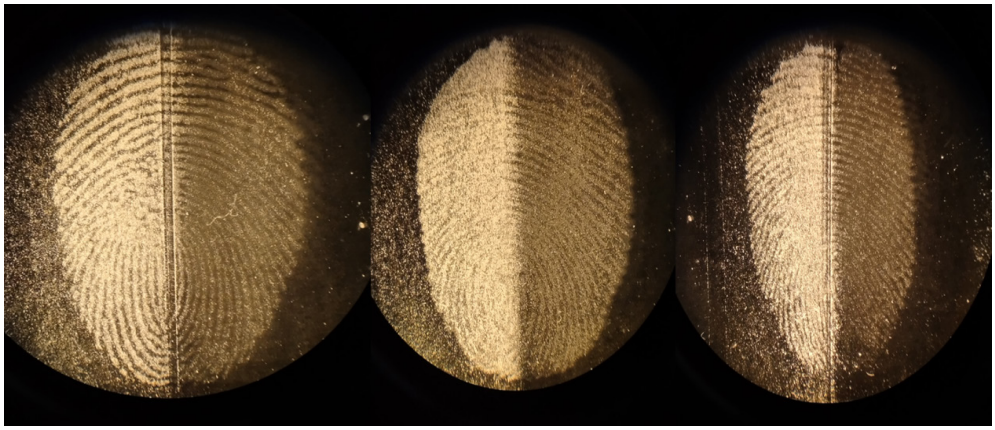

Figure S18: *Fingerprints of three donors with U_2 sample, day 1, using the dark-field contrast technique.*

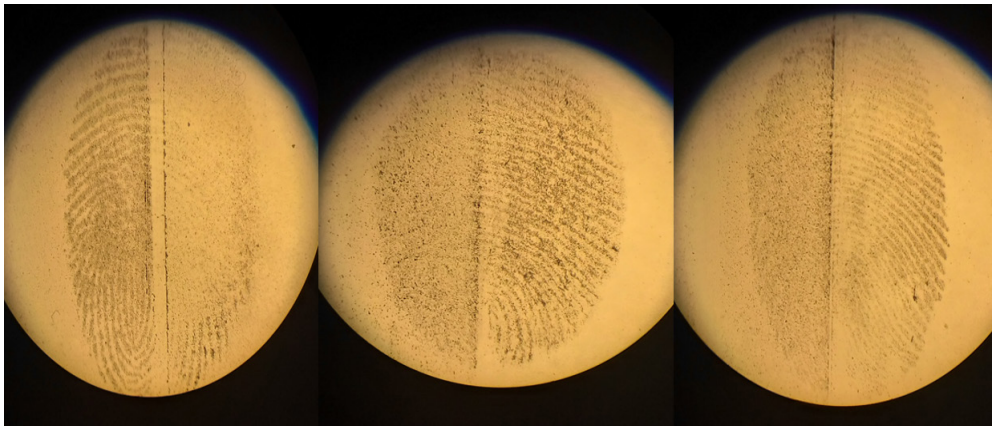

Figure S19: *Fingerprints of three donors with U_3 sample, day 1, using the bright-field contrast technique.*

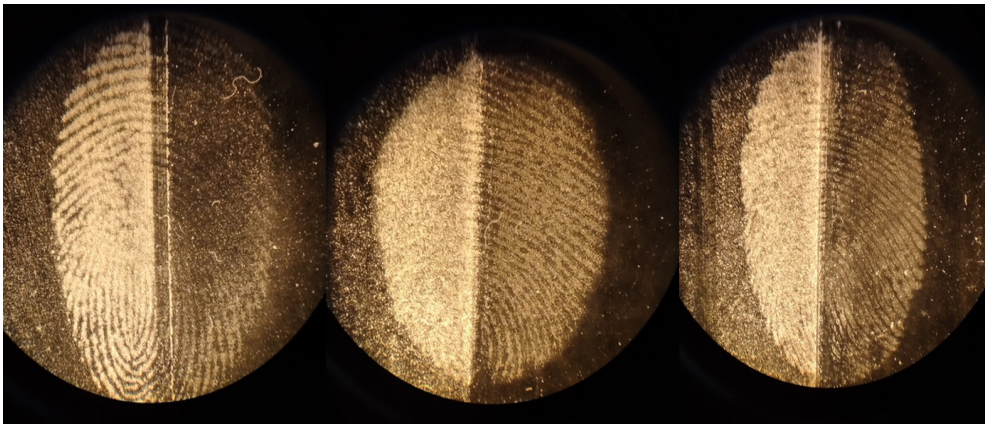

Figure S20: *Fingerprints of three donors with U_3 sample, day 1, using the dark-field contrast technique.*

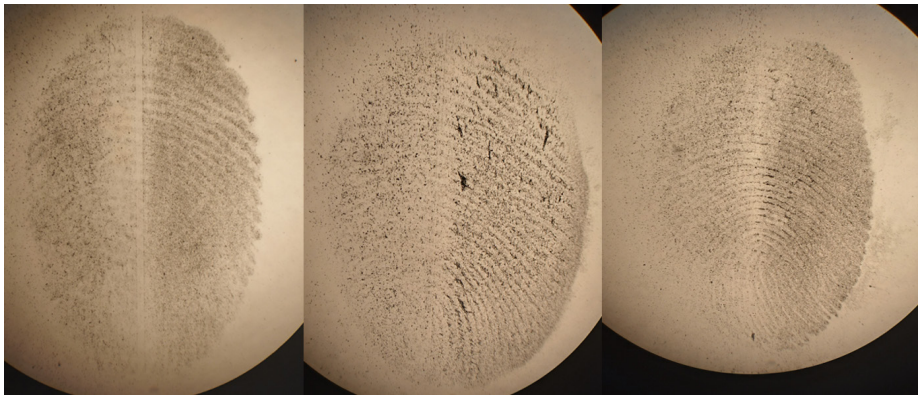

Figure S21: *Fingerprints of three donors with U_1 sample, day 7, using the bright-field contrast technique.*

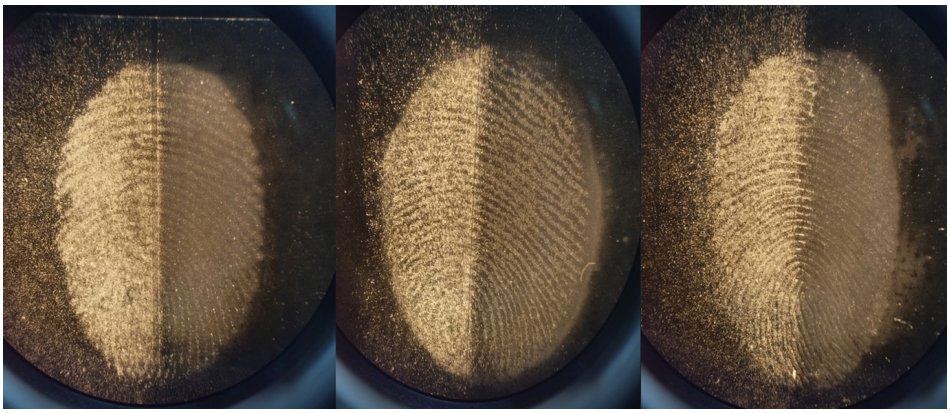

Figure S22: *Fingerprints of three donors with U_1 sample, day 7, using the dark-field contrast technique.*

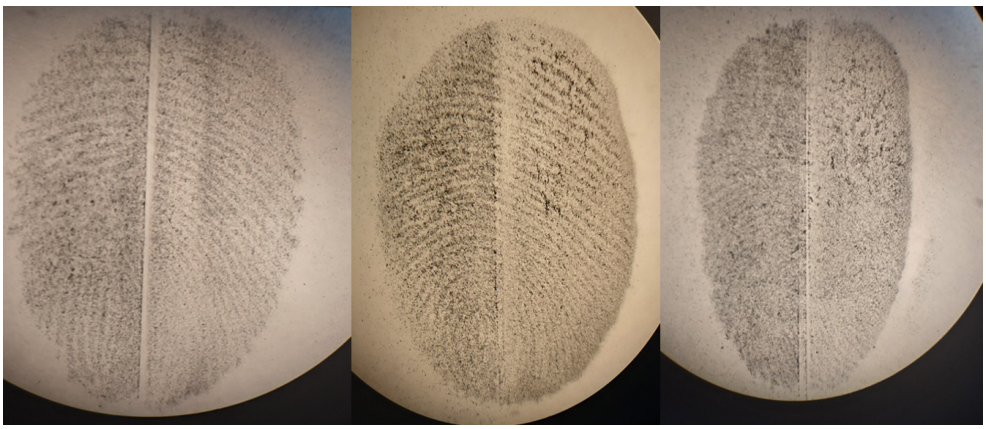

Figure S23: *Fingerprints of three donors with U_2 sample, day 7, using the bright-field contrast technique.*

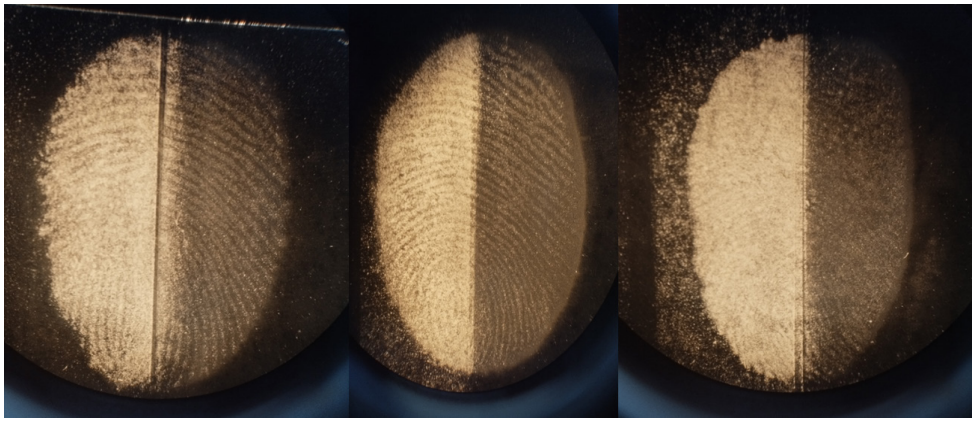

Figure S24: *Fingerprints of three donors with U_2 sample, day 7, using the dark-field contrast technique.*

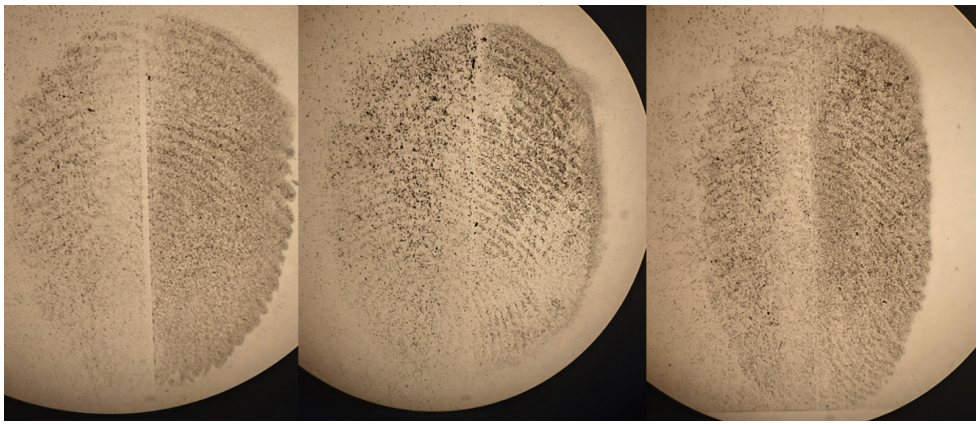

Figure S25: *Fingerprints of three donors with U_3 sample, day 7, using the bright-field contrast technique.*

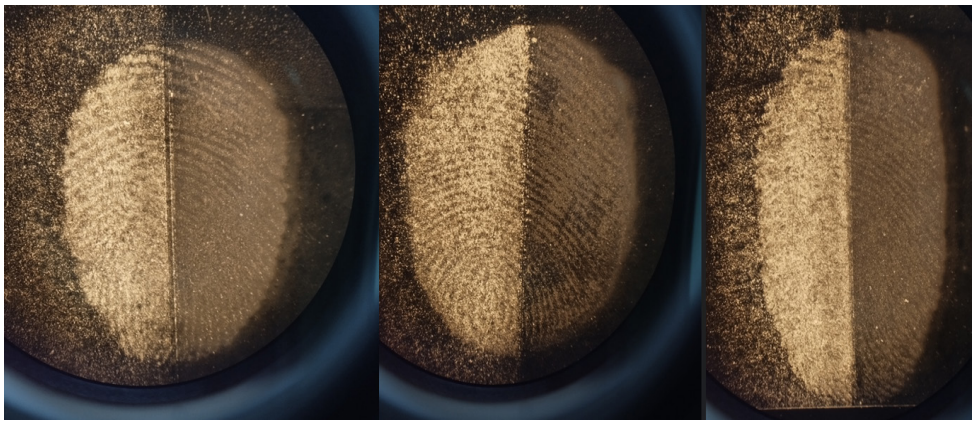

Figure S26: *Fingerprints of three donors with U_3 sample, day 7, using the dark-field contrast technique.*

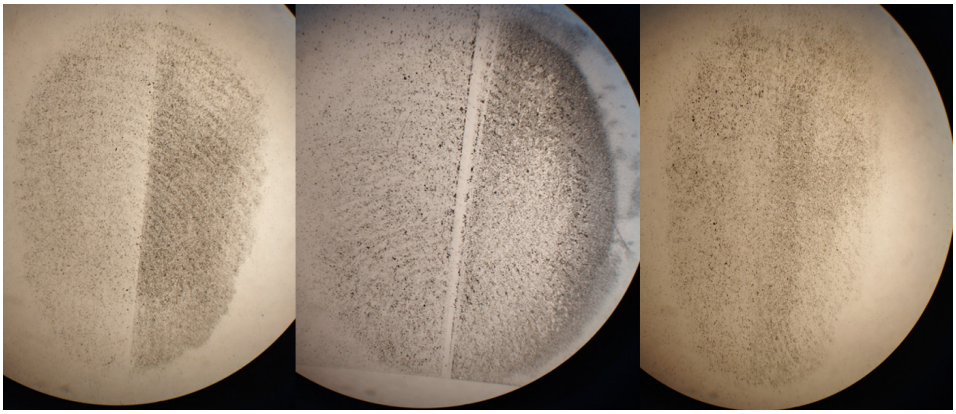

Figure S27: *Fingerprints of three donors with U_1 sample, day 30, using the bright-field contrast technique.*

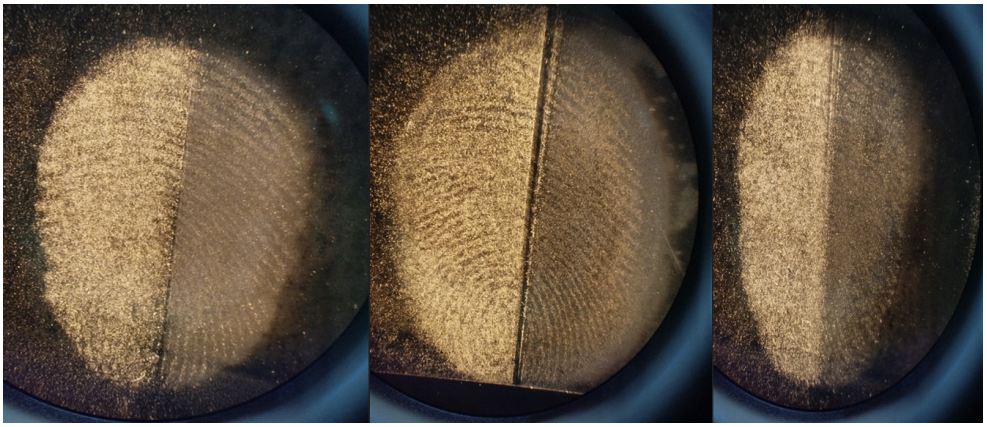

Figure S28: *Fingerprints of three donors with U_1 sample, day 30, using the dark-field contrast technique.*

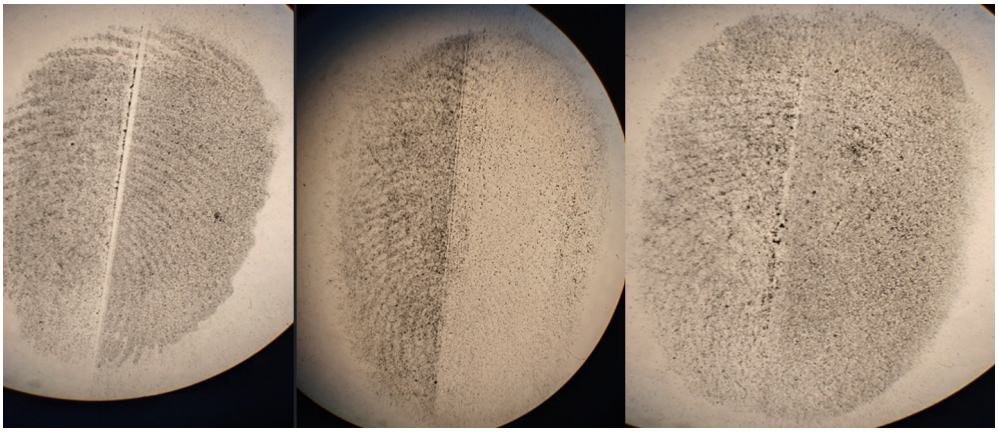

Figure S29: *Fingerprints of three donors with U_2 sample, day 30, using the bright-field contrast technique.*

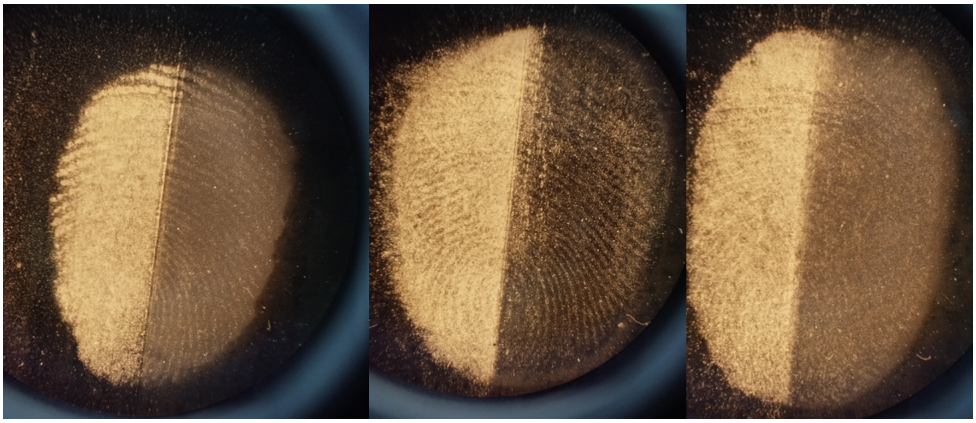

Figure S30: *Fingerprints of three donors with U_2 sample, day 30, using the dark-field contrast technique.*

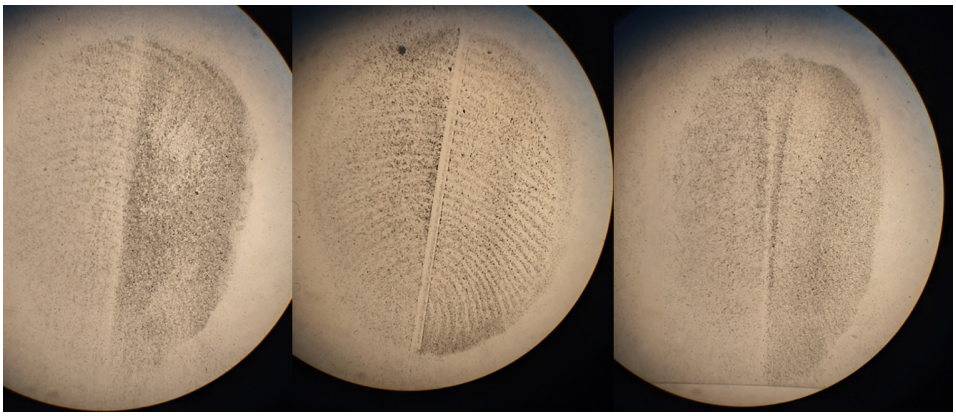

Figure S31: *Fingerprints of three donors with U_3 sample, day 30, using the bright-field contrast technique.*

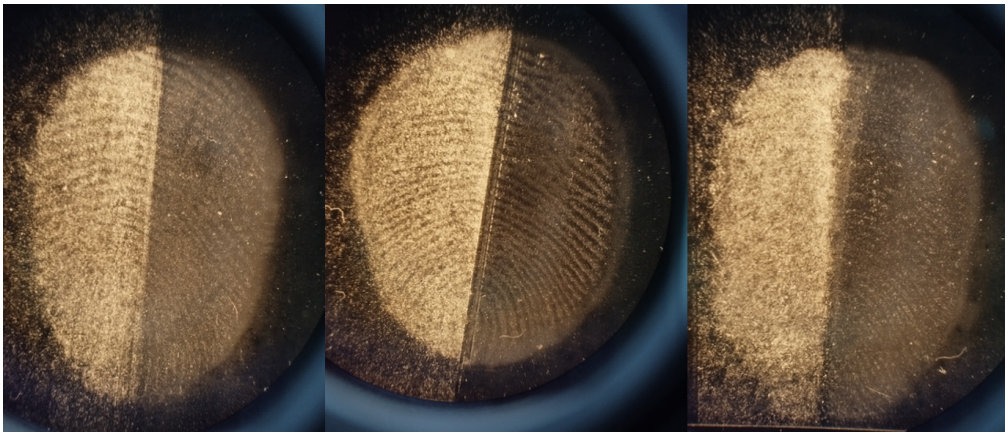

Figure S32: *Fingerprints of three donors with U_3 sample, day 30, using the dark-field contrast technique.*