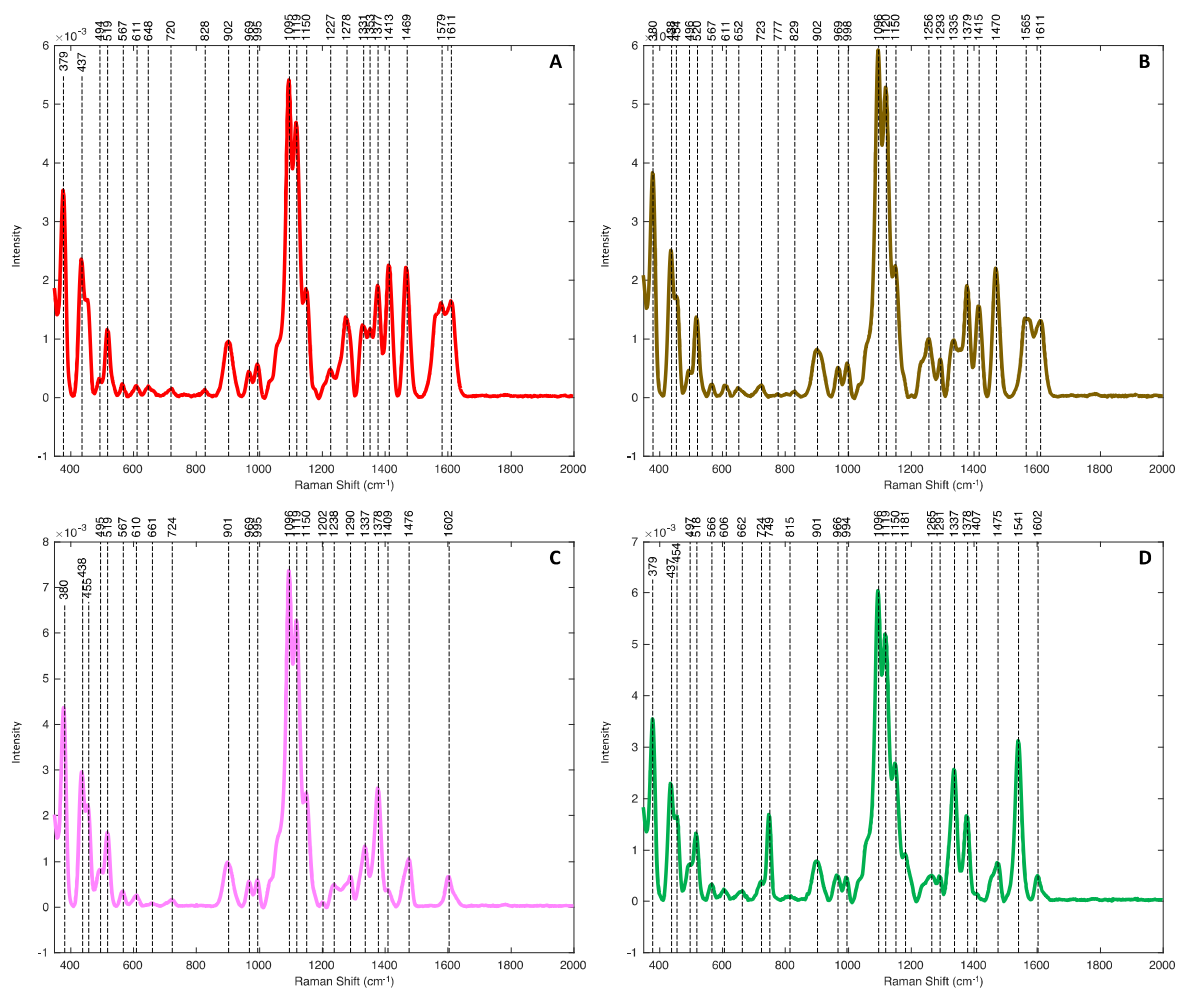


Non-Destructive Identification of Dyes on Fabric Using Near-Infrared Raman Spectroscopy

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Supporting Information



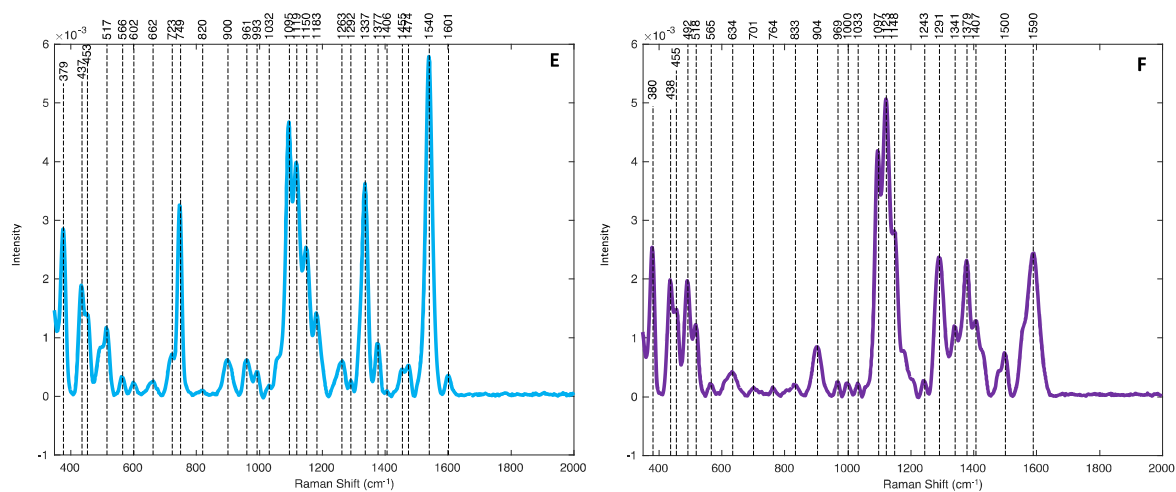


Figure S1: Average NIR Spectra of the following dyed cotton samples: A) red B) orange C) yellow D) green E) blue and F) purple

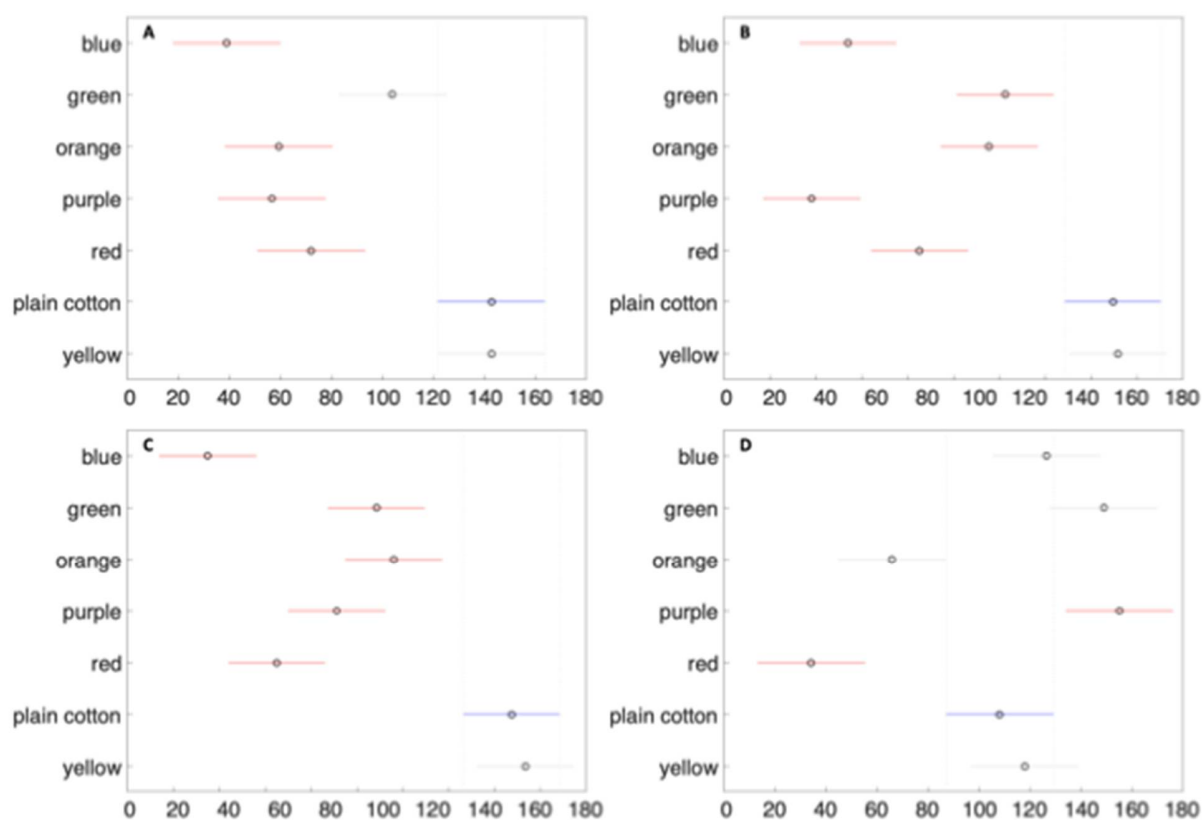


Figure S2: ANOVA tests of relative intensities of 1038 cm^{-1} (A) 1096 cm^{-1} (B) 1120 cm^{-1} (C), and 1150 cm^{-1} (D) bands in the Raman spectra acquired from in-lab dyed and undyed cotton fabric.

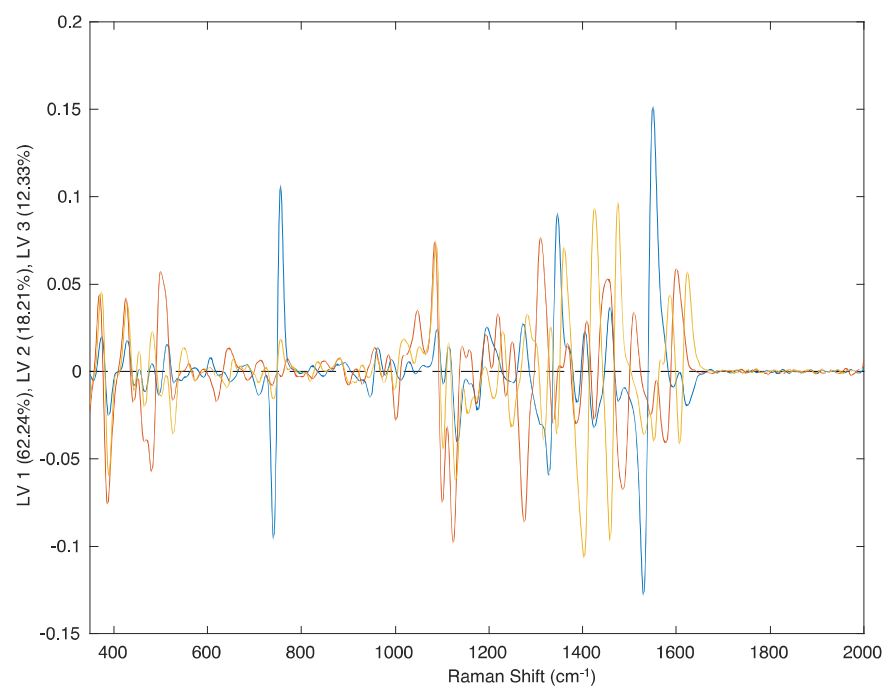


Figure S3: LV Plot of In-Lab Dyed Cotton Samples from PLS-DA

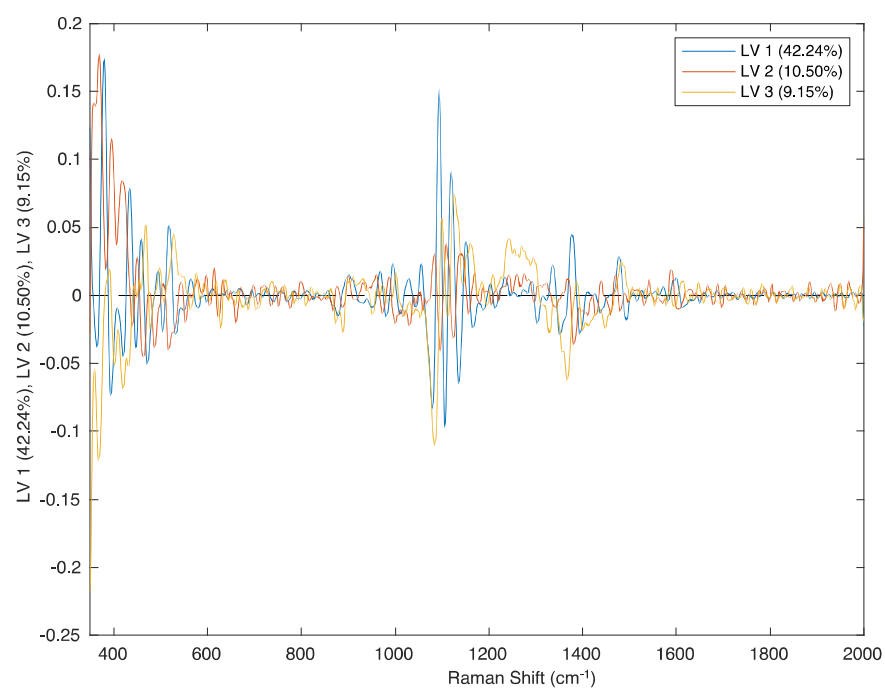


Figure S4: LV Plot of Plain Cotton and Yellow In-Lab Dyed Cotton from PLS-DA

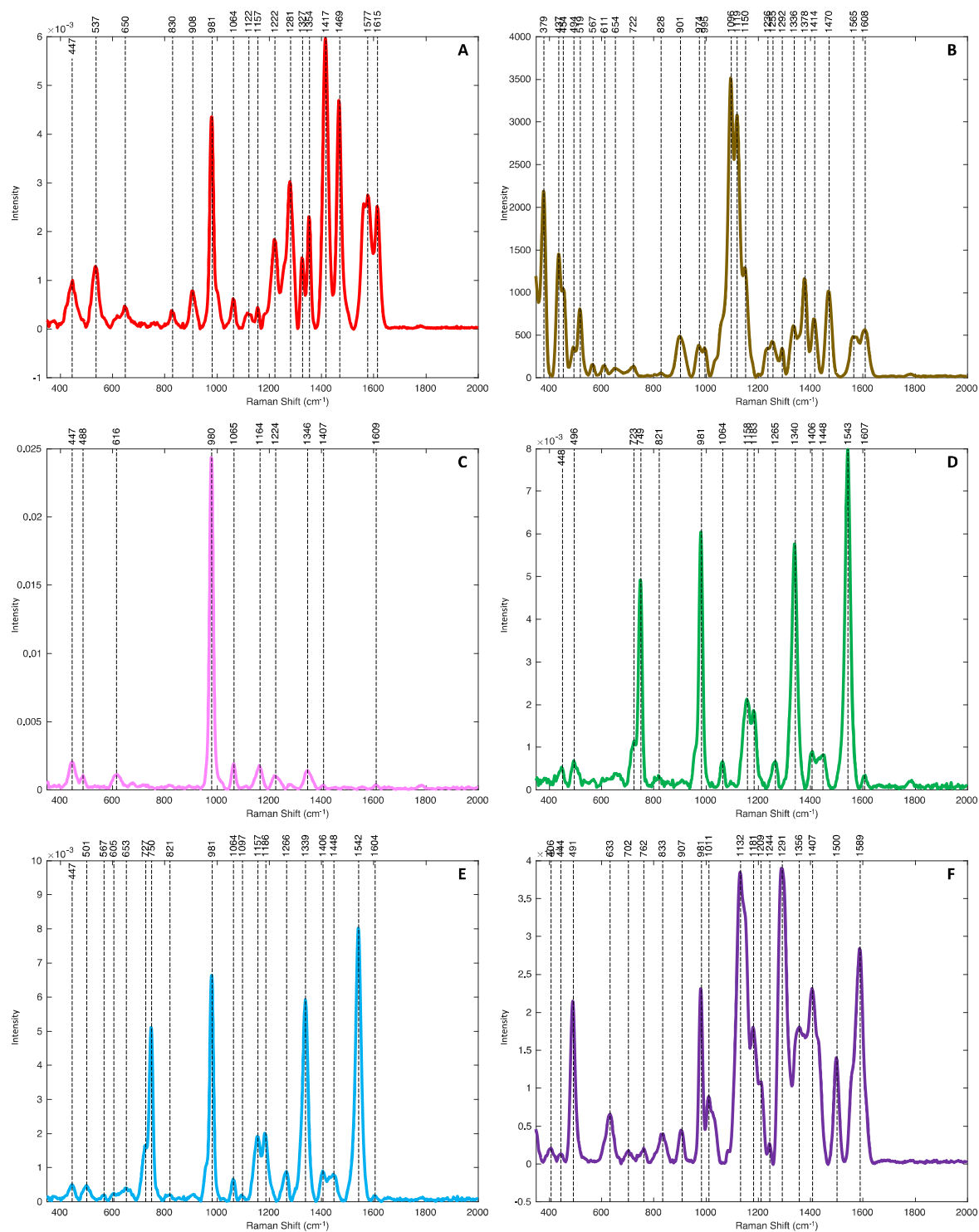


Figure S5: Average SORS Spectra of the following liquid dye samples: A) red B) orange C) yellow D) green E) blue and F) purple

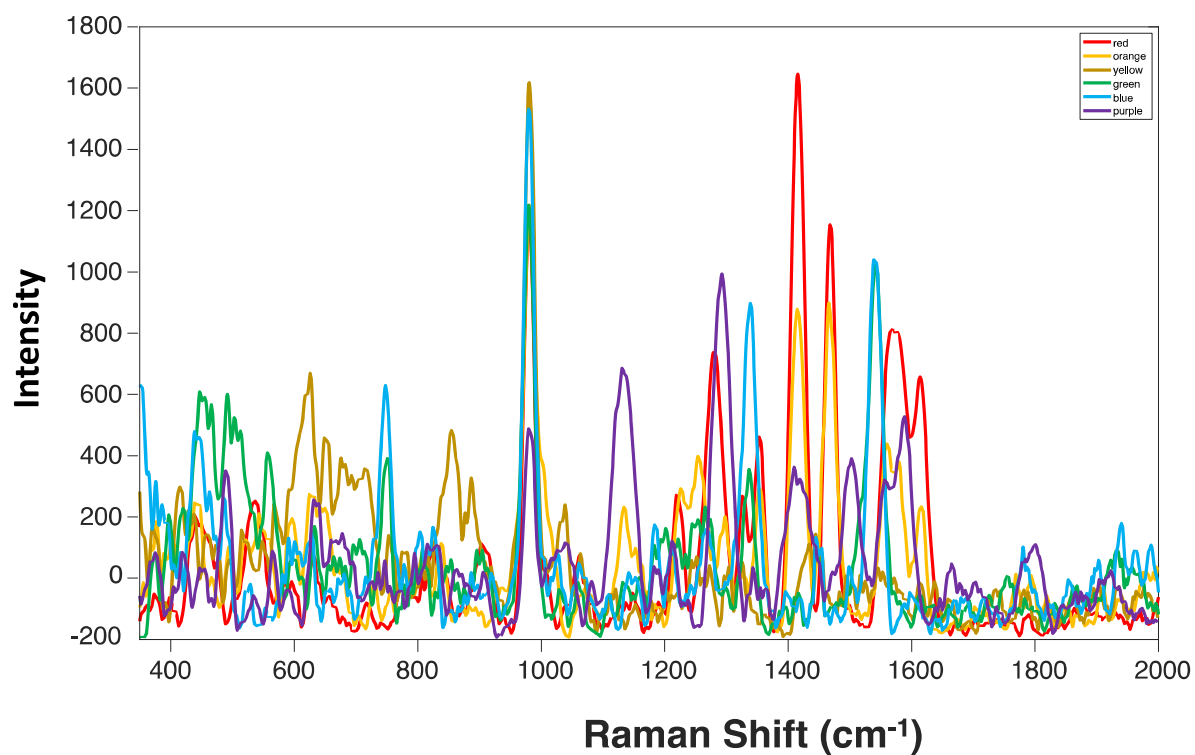


Figure S6: NIR Spectra acquired from dyes dissolved in water.

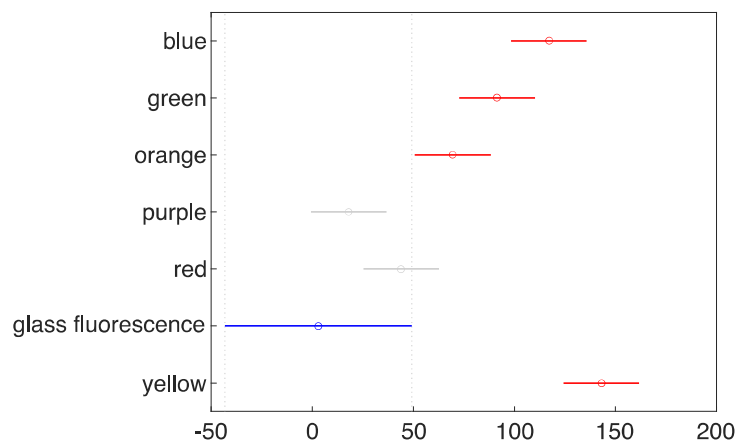


Figure S7: ANOVA tests of relative intensities of 980 cm^{-1} in the Raman spectra acquired from dyes dissolved in water.

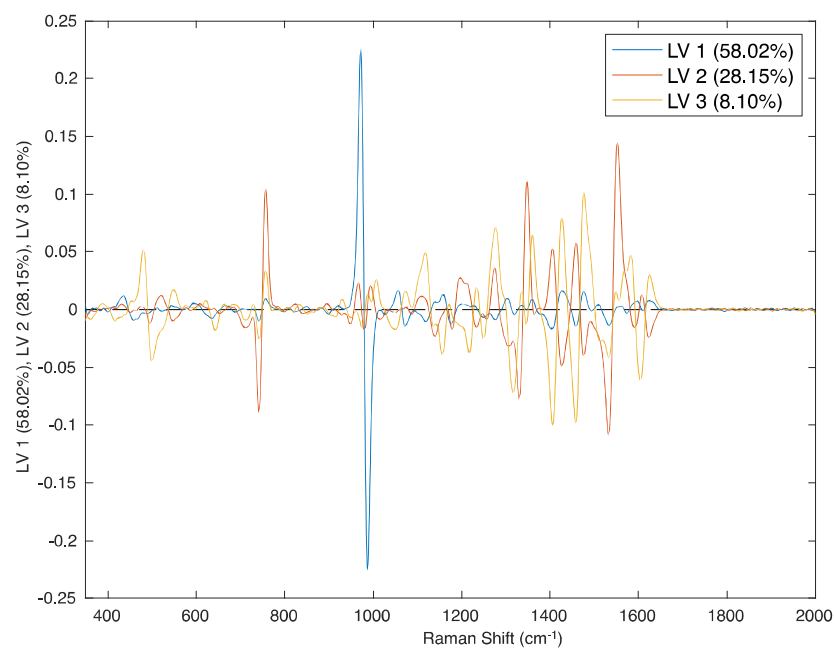


Figure S8: LV Plot of Liquid Dye Samples from PLS-DA

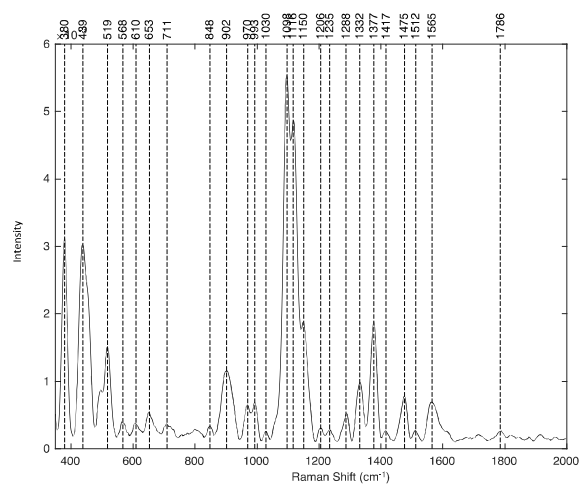


Figure S9: Average NIR Spectra of Brazilwood

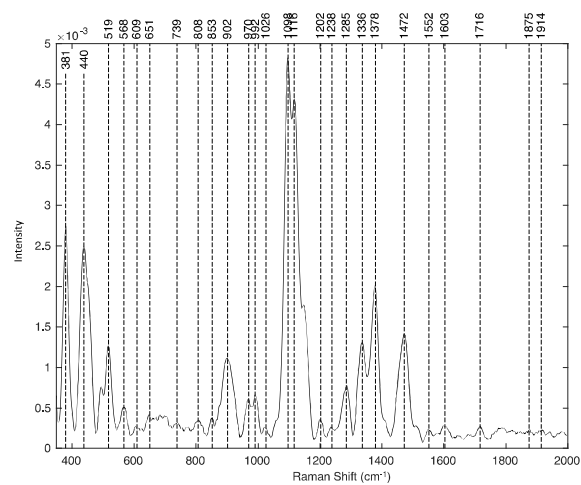


Figure S10: Average NIR Spectra of Buckthorn

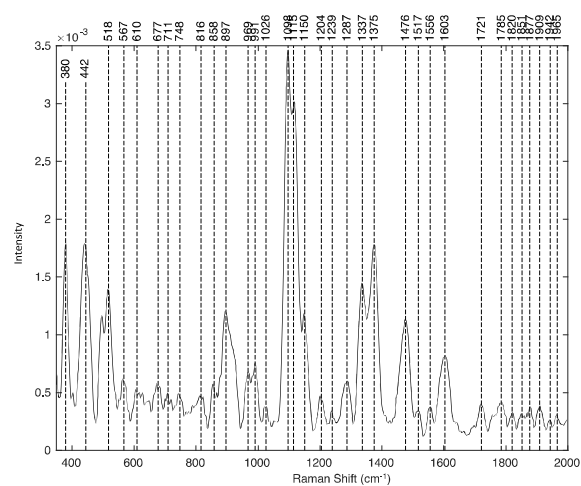


Figure S11: Average NIR Spectra of Clutch

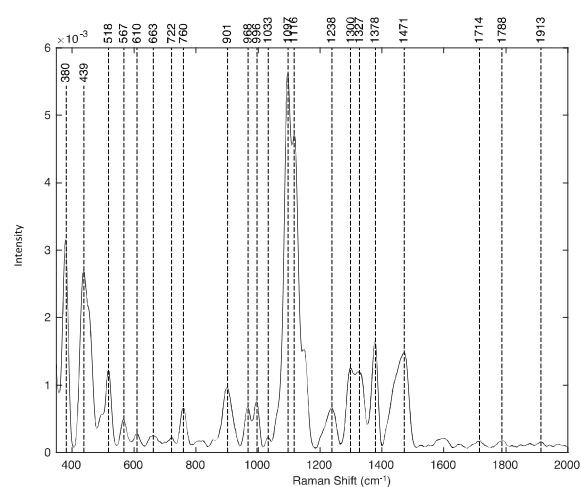


Figure S12: Average NIR Spectra of Cochineal

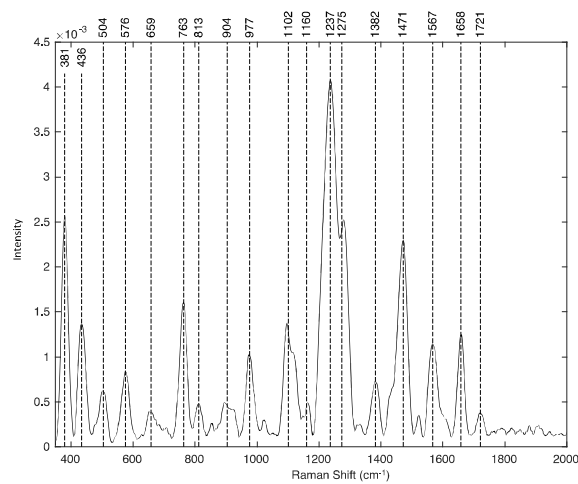


Figure S13: Average NIR Spectra of Lac

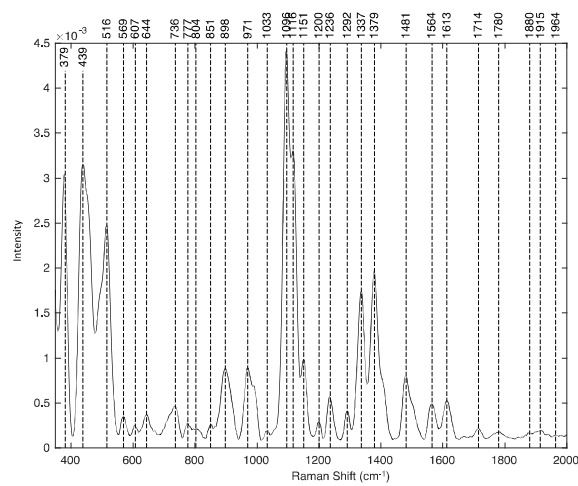


Figure S14: Average NIR Spectra of Logwood

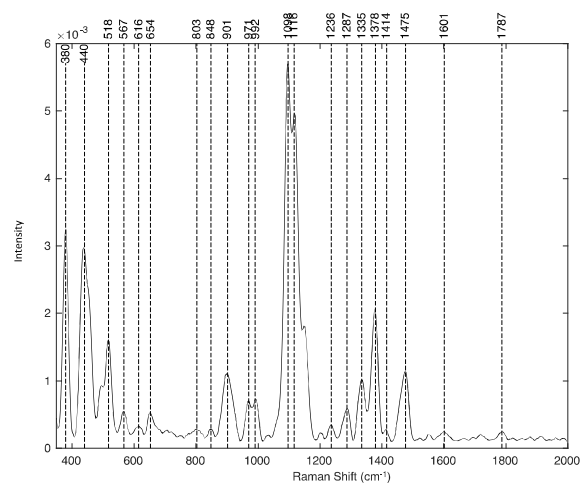


Figure S15: Average NIR Spectra of Madder

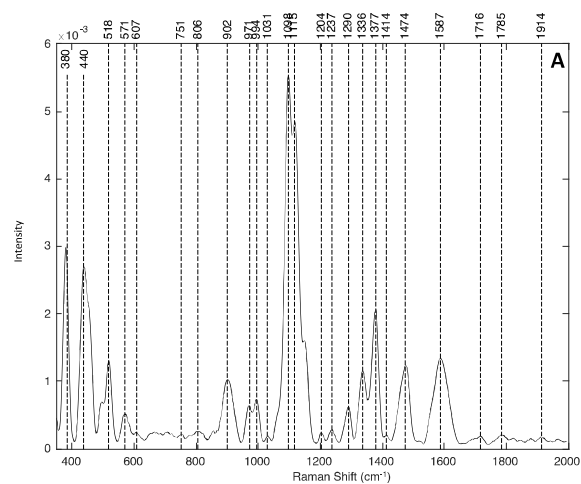


Figure S16: Average NIR Spectra of Pomegranate

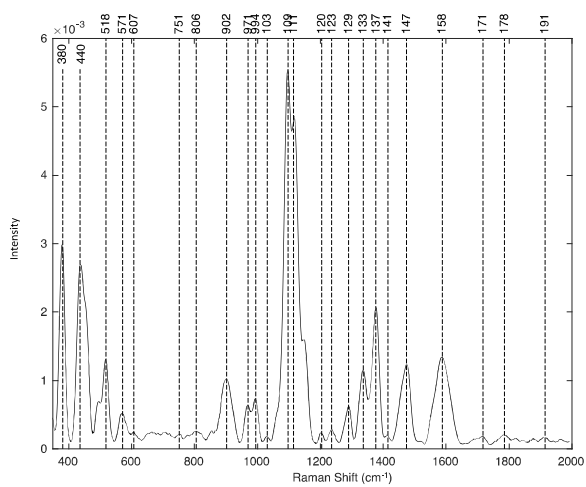


Figure S17: Average NIR Spectra of Weld

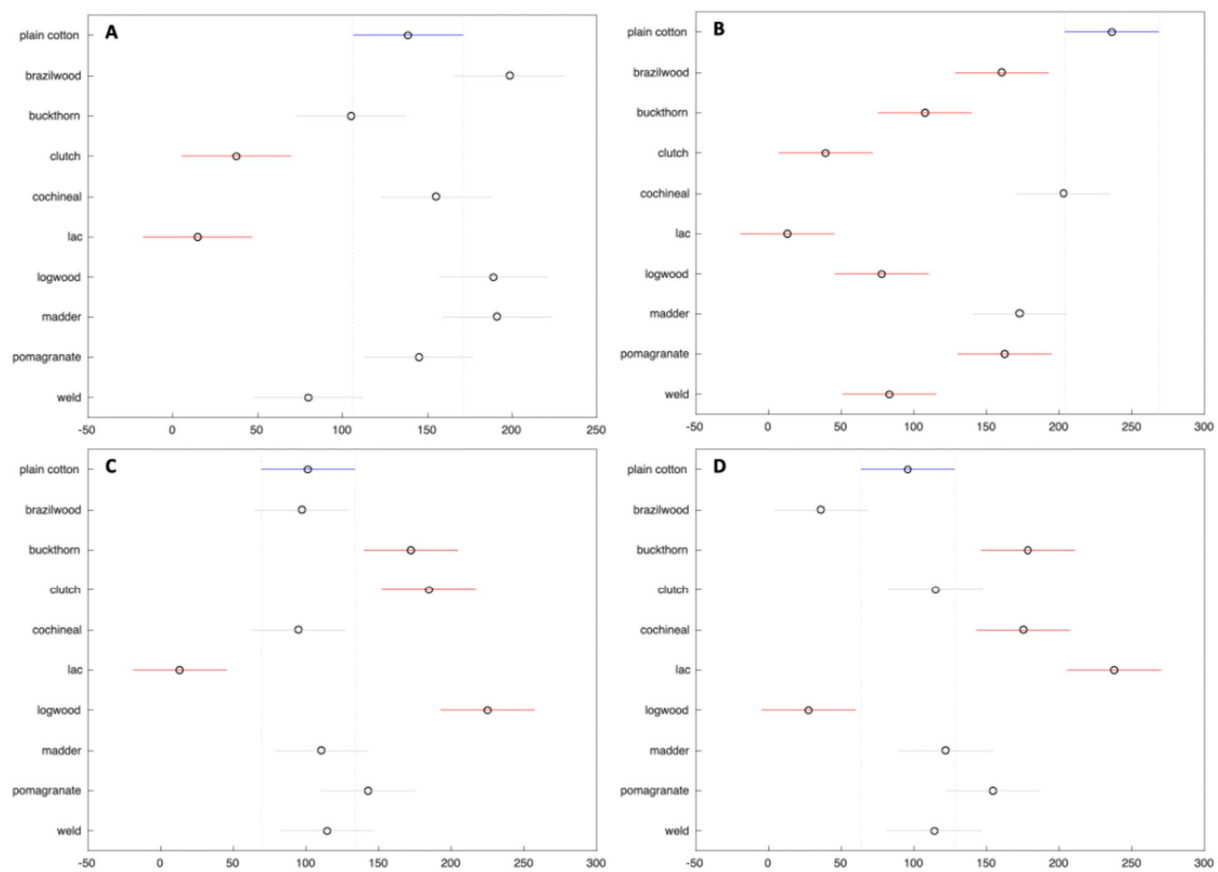


Figure S18: ANOVA Tests of Menil Fabric Without Nanoparticles at A) 438 cm⁻¹ B) 1097 cm⁻¹ C) 1335 cm⁻¹ and D) 1475 cm⁻¹

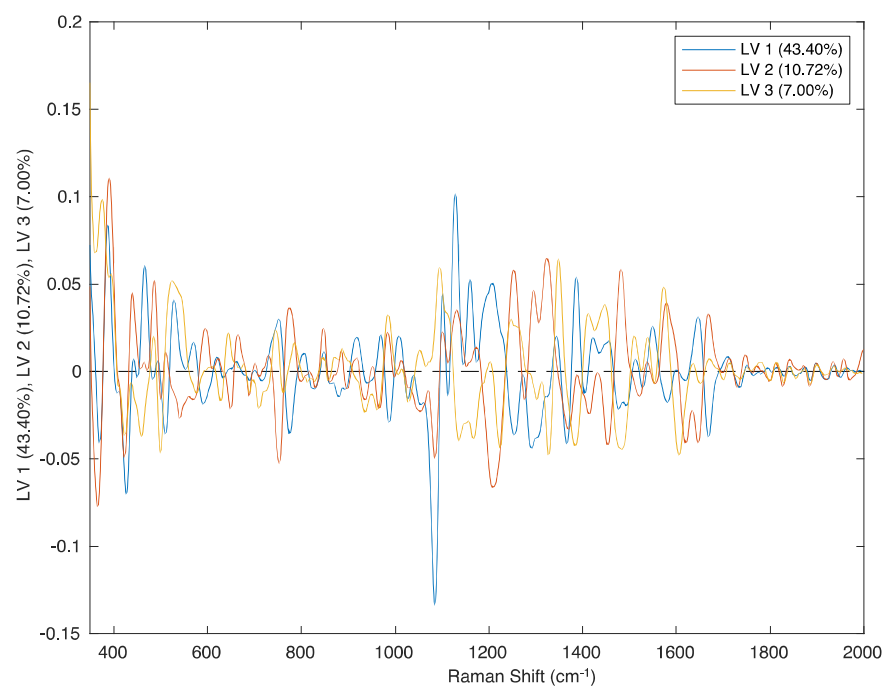


Figure 19: LV Plot of Menil Fabric Without Nanoparticles From PLS-DA