

Research on Spectroscopic Determination and Classification of Diffuse Reflectance for Low-Altitude UAV Fuselage Materials

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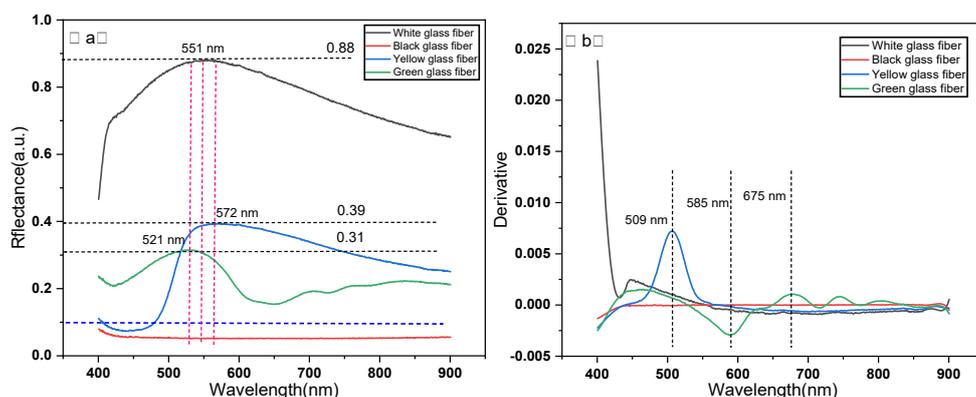


Figure S1. Spectral curves measured for fibers of different colors. (a) Reflectance spectra. (b) First-derivative spectra.

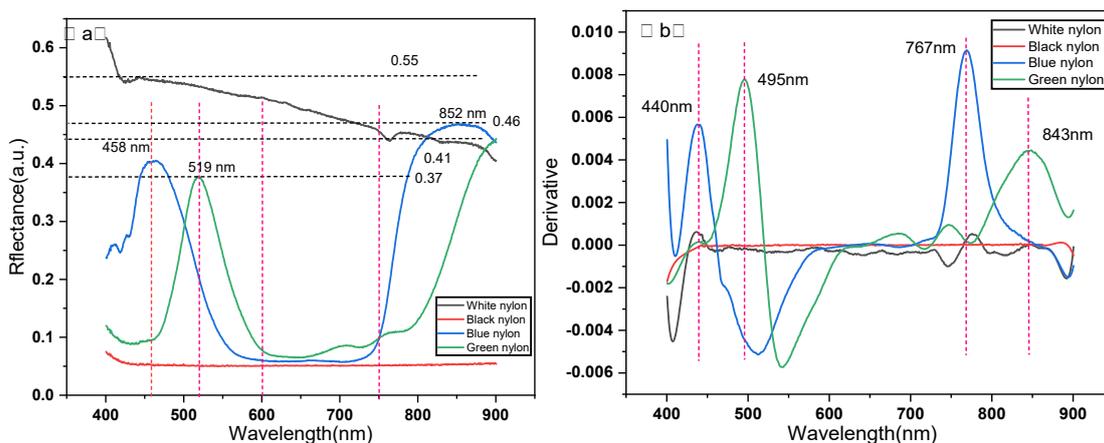


Figure S2. Spectral curves of nylon materials with different colors. (a) Reflectance spectra. (b) First-derivative spectra.

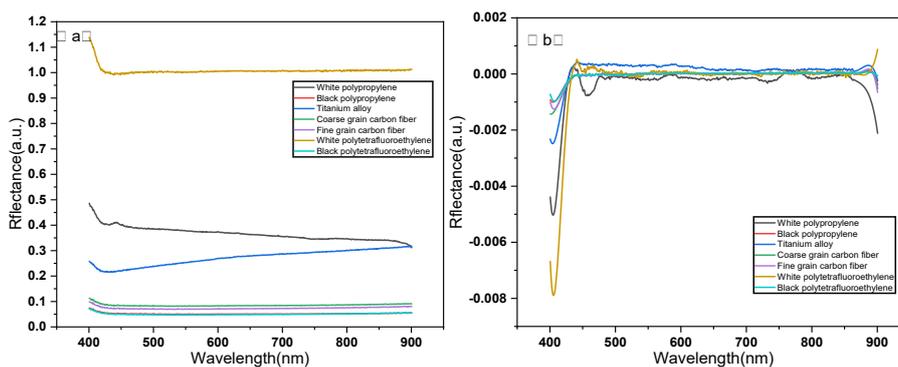


Figure S3. Spectral curves of white and black materials including polypropylene and titanium alloy. (a) Reflectance spectra. (b) Derivative spectra.

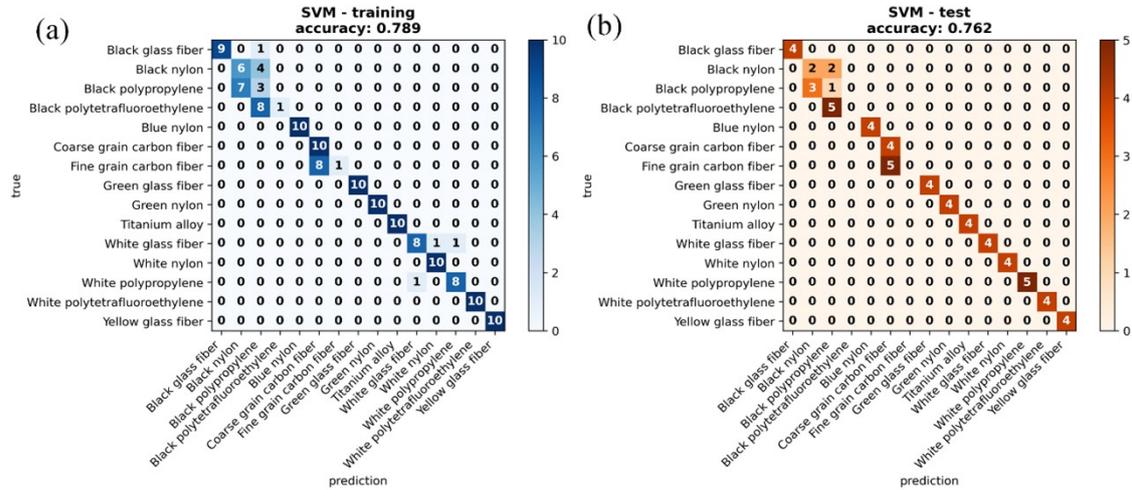


Figure S4. Confusion matrices for UAV material reflectance spectrum classification based on the SVM algorithm. (a) Training set confusion matrix. (b) Test set confusion matrix.

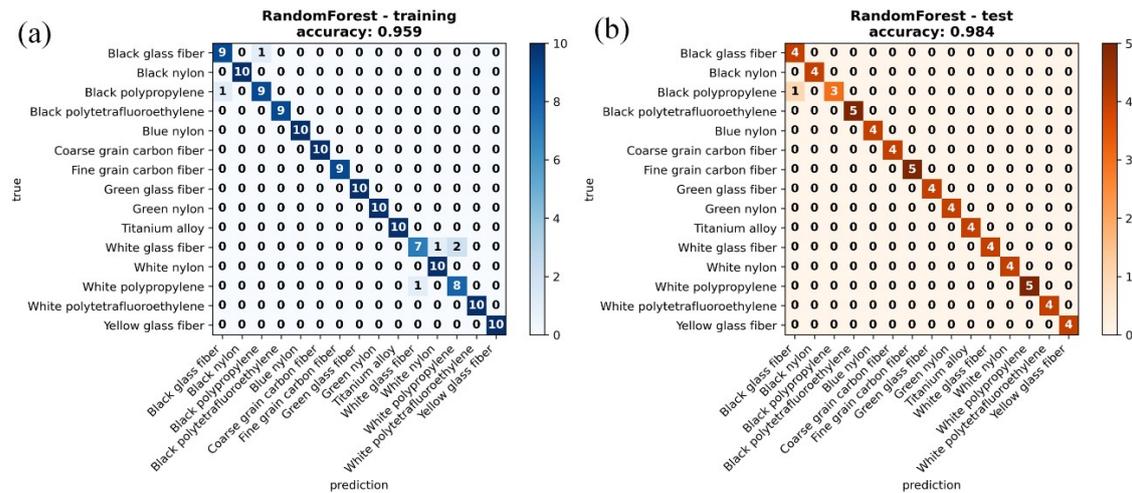


Figure S5. Confusion matrix analysis for UAV material reflectance spectrum classification based on the Random Forest algorithm. (a) Training set confusion matrix. (b) Test set confusion matrix.

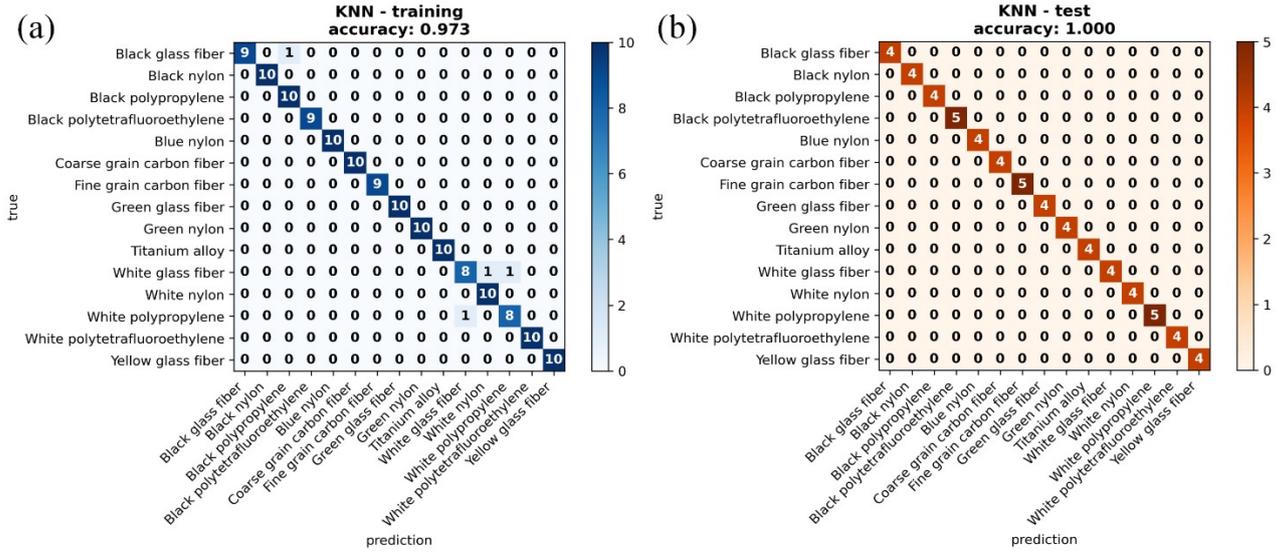


Figure S6. Confusion matrix analysis for UAV material reflectance spectrum classification based on the KNN algorithm. (a) Training set confusion matrix. (b) Test set confusion matrix.