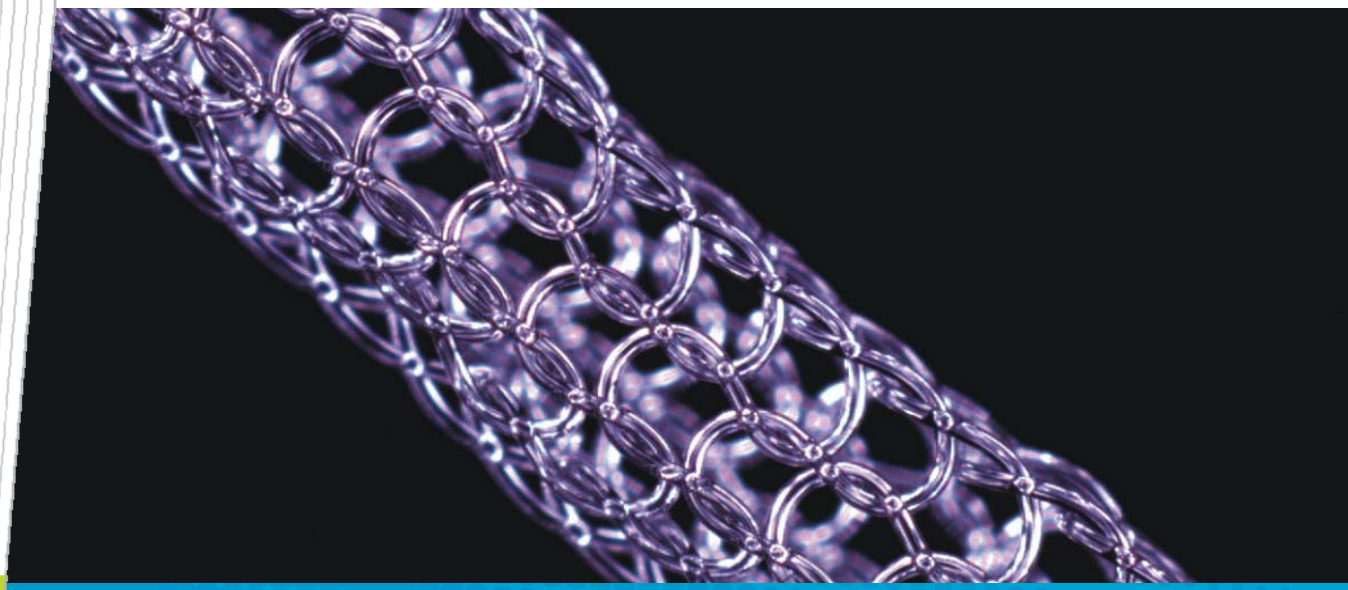
Microscopy Report

Materials Science & Engineering
Report Number: 2558
Date: 19th March 2010

Client Name: Amazing Turf

CSIRO Contact: Colin Veitch

Commercial-in-confidence



www.csiro.au

A piece of each component of the sample was placed on conductive carbon tape on a sample holder. This was then placed in the Hitachi S4300 SE/N Scanning Electron Microscope (SEM). The microscope is equipped with a TSI WinEDS Energy Dispersive X-ray System (EDXS) which was used to perform the elemental analysis of the sample.

The following figures show images and spectra from each sample – dark green “grass” (figures 1 and 2), light green “grass” (figures 3 and 4), brown “grass” (figures 5 and 6), the black ribbon like material from the base (figures 7and 8), the fibres from the base (figures 9 and 10) and the rubber base (figures 11 and 12). The rectangular box in each image indicates the area which was used for analysis.

In each case the large peak at the low energy end of the spectrum is carbon. There were traces of sulphur in the two green “grasses”, with even smaller traces of titanium and chromium in the lighter shade. These presumably come from the pigment. Aside from a small amount of calcium in the black ribbon fabric, some oxygen in the black fibres and some oxygen, magnesium, aluminium, silicon and calcium there were no other elements detected. No heavy metals were detected in the sample.

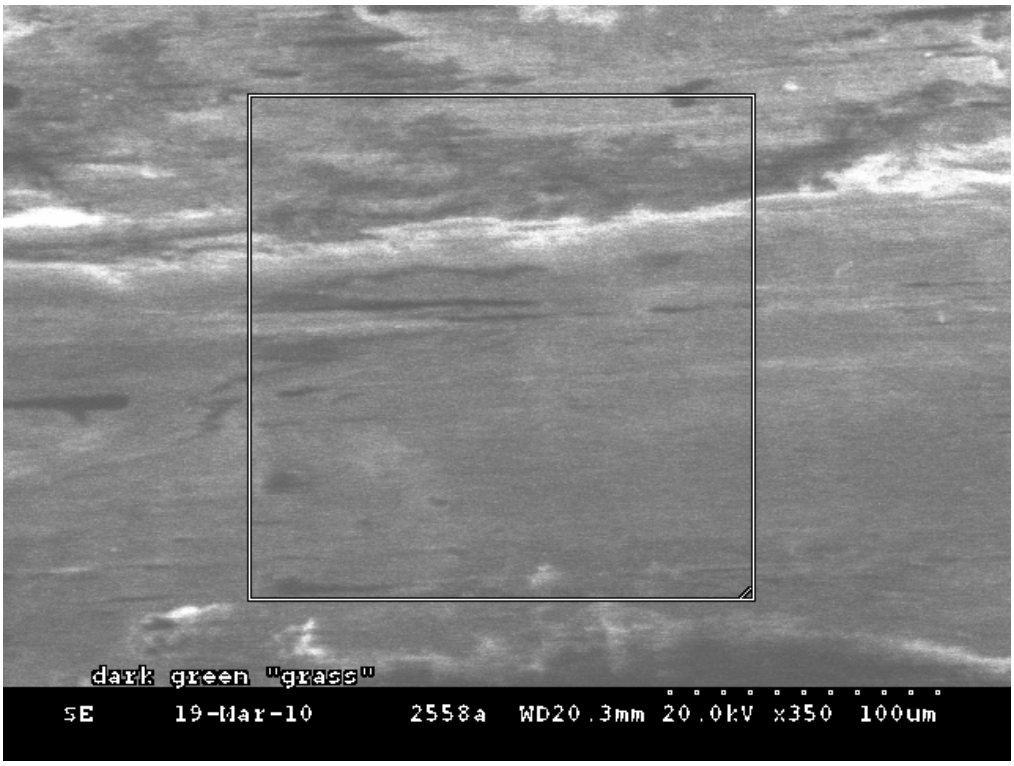


Figure 1

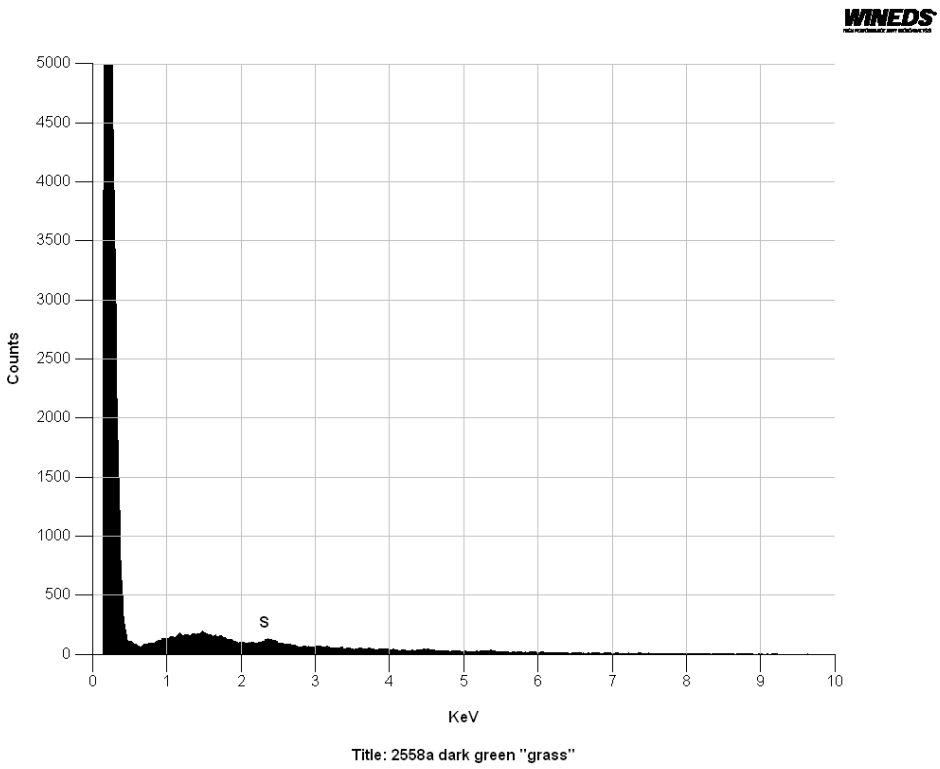


Figure 2

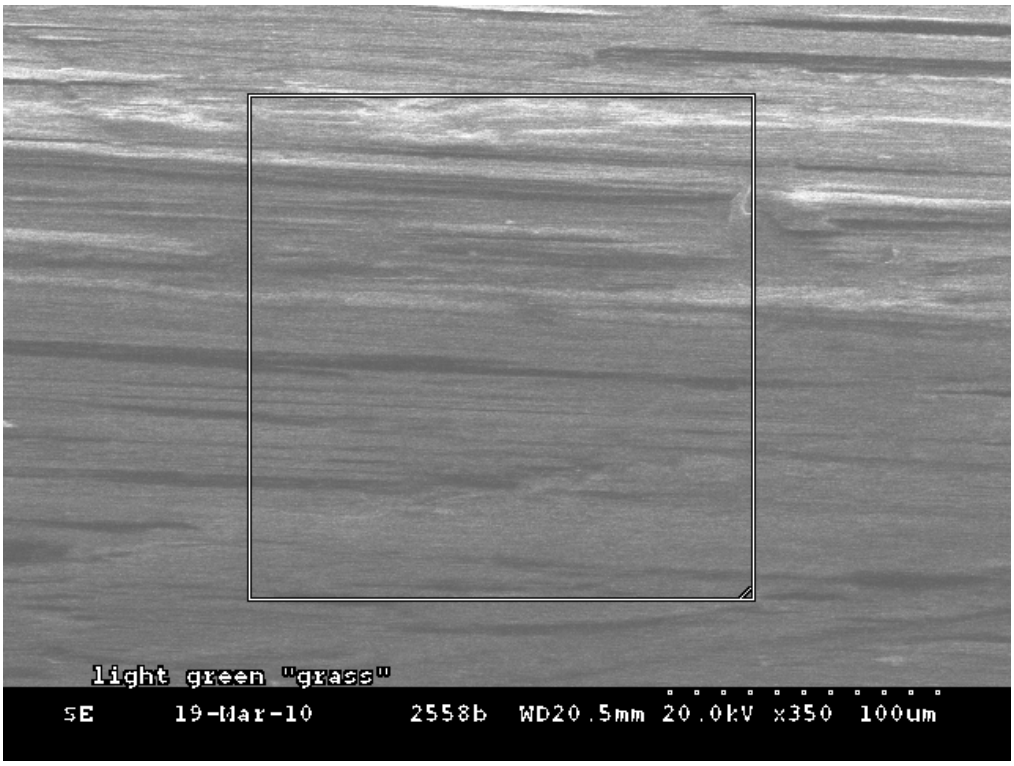


Figure 3

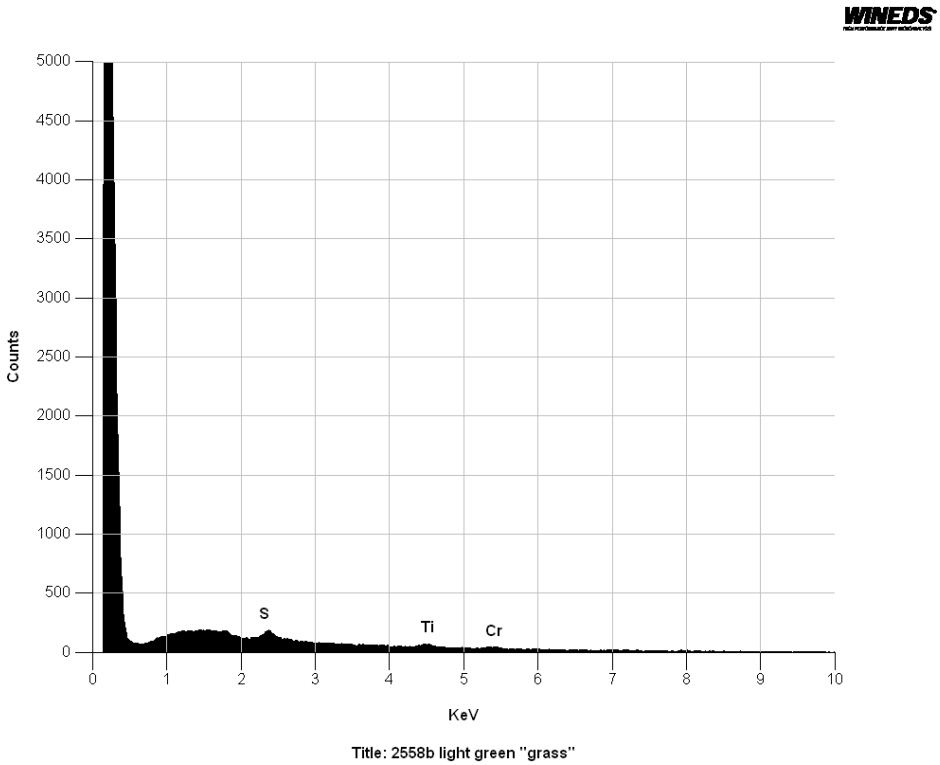


Figure 4

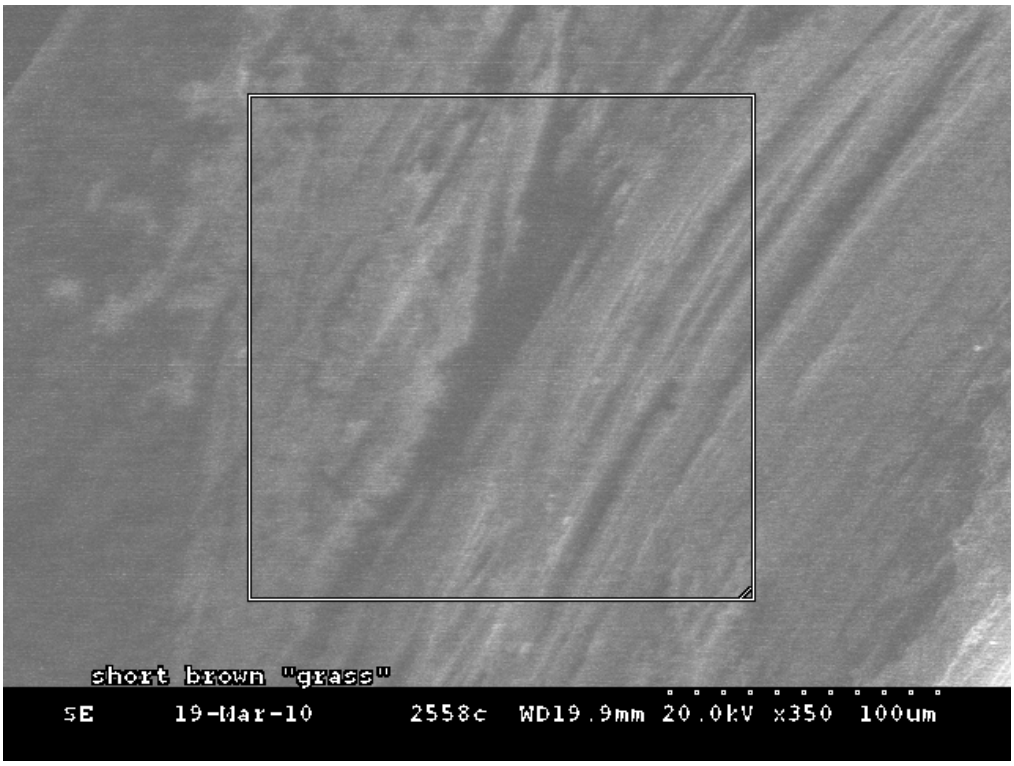


Figure 5

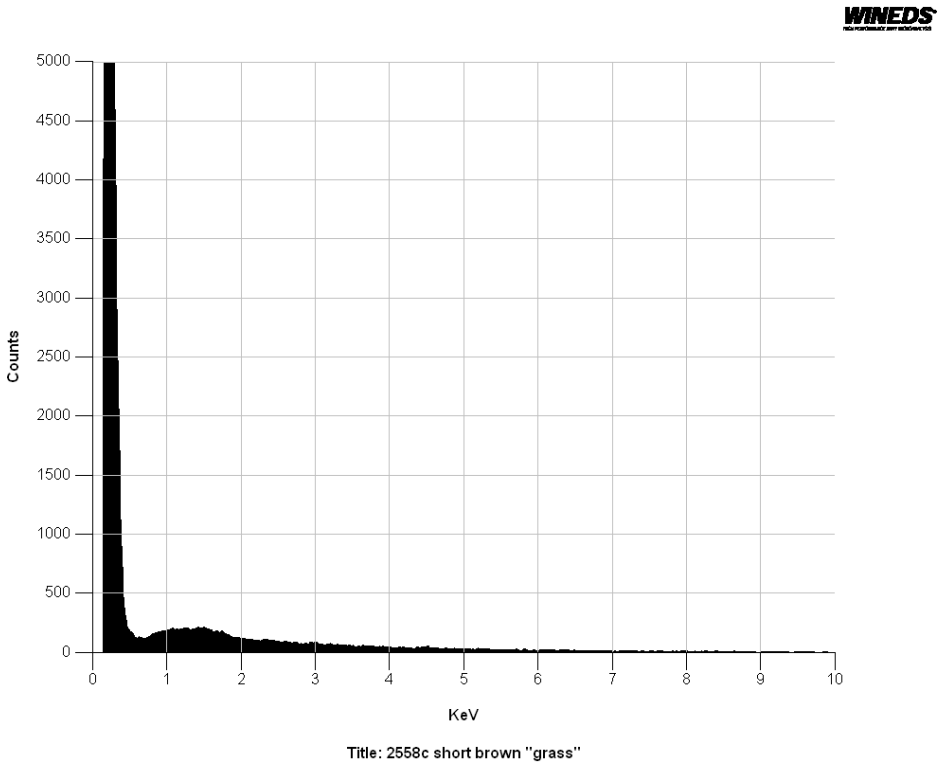


Figure 6

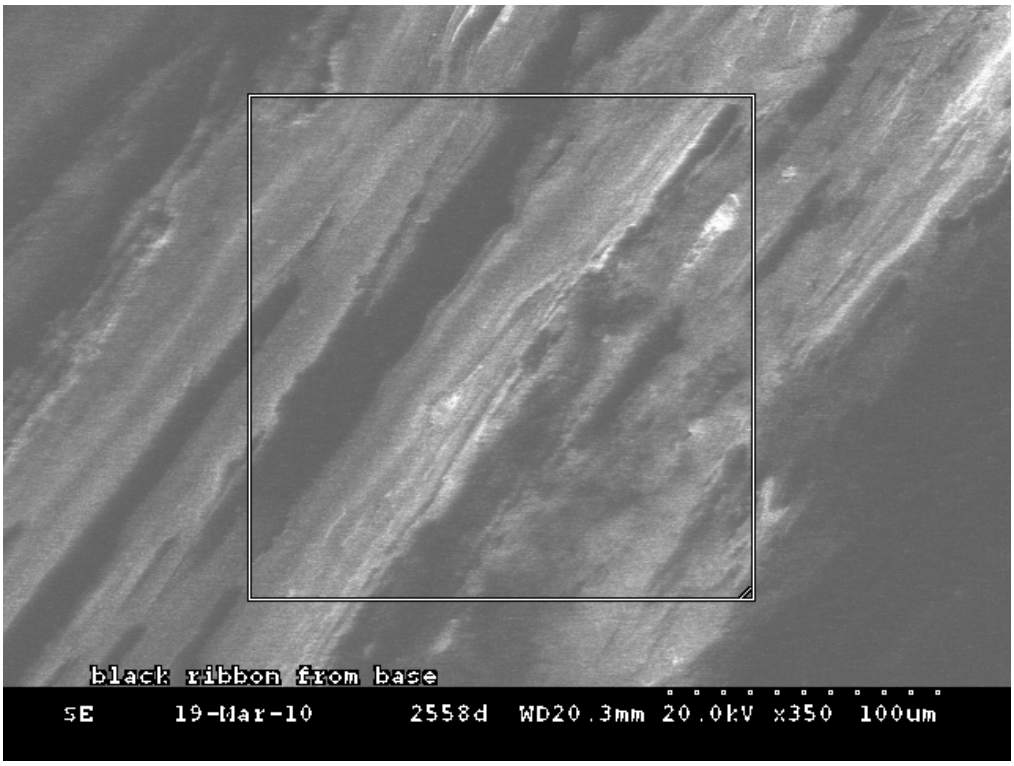


Figure 7

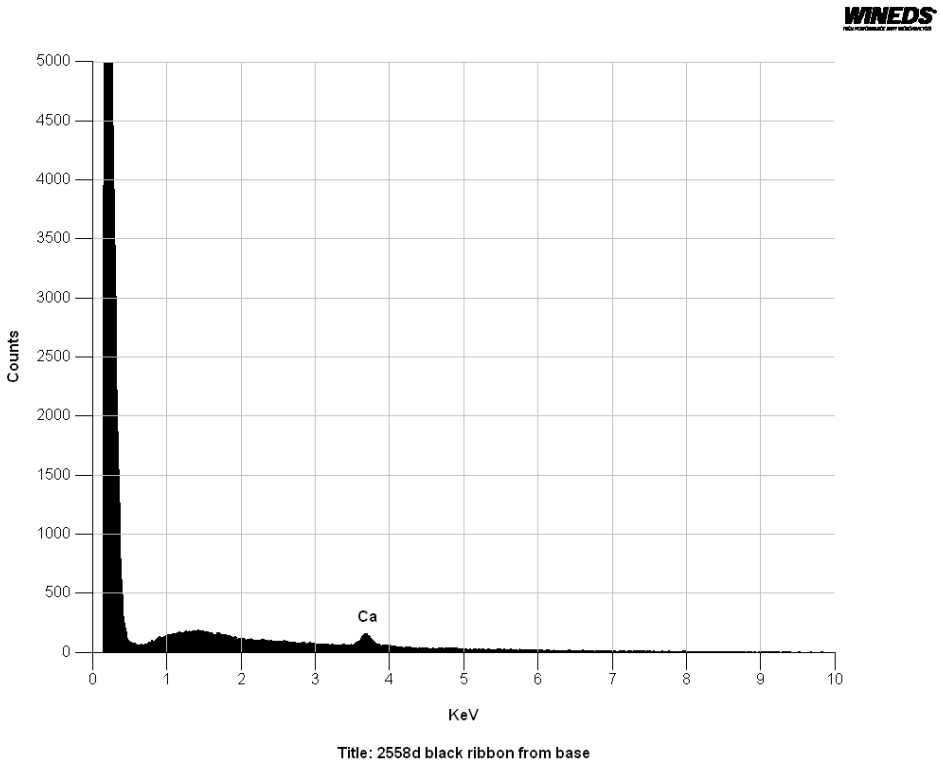


Figure 8

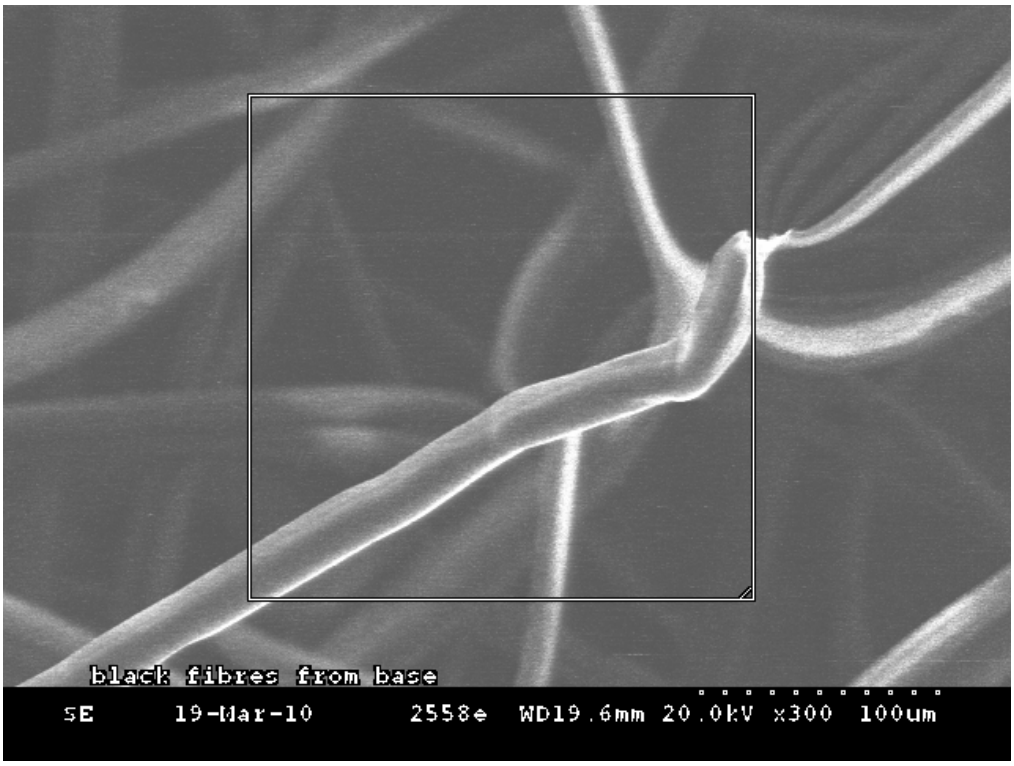


Figure 9

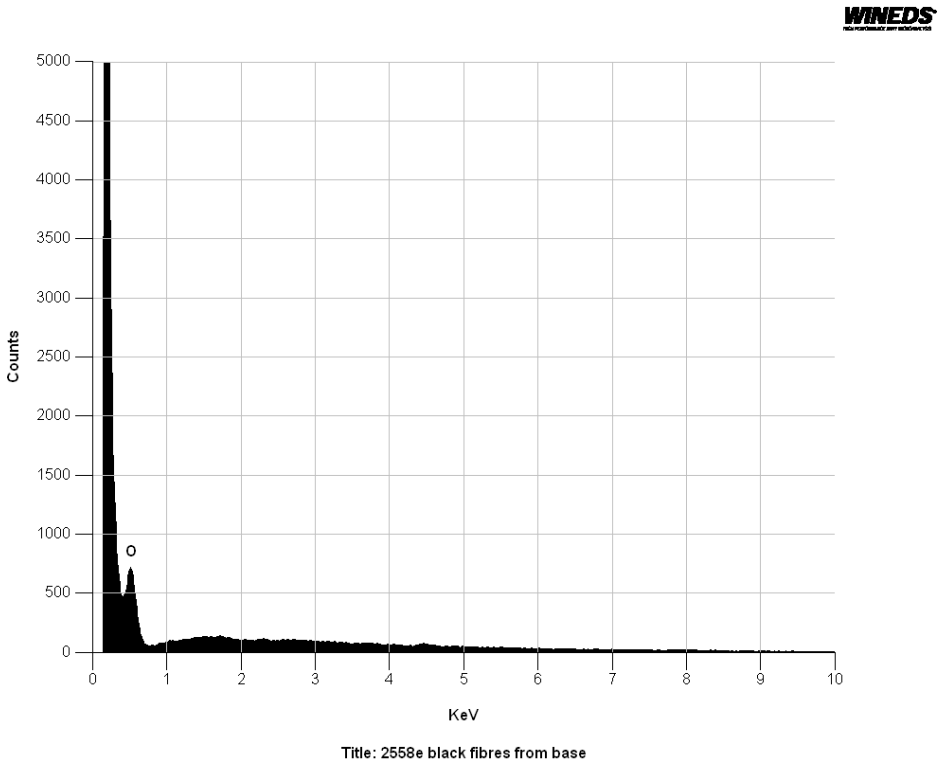


Figure 10

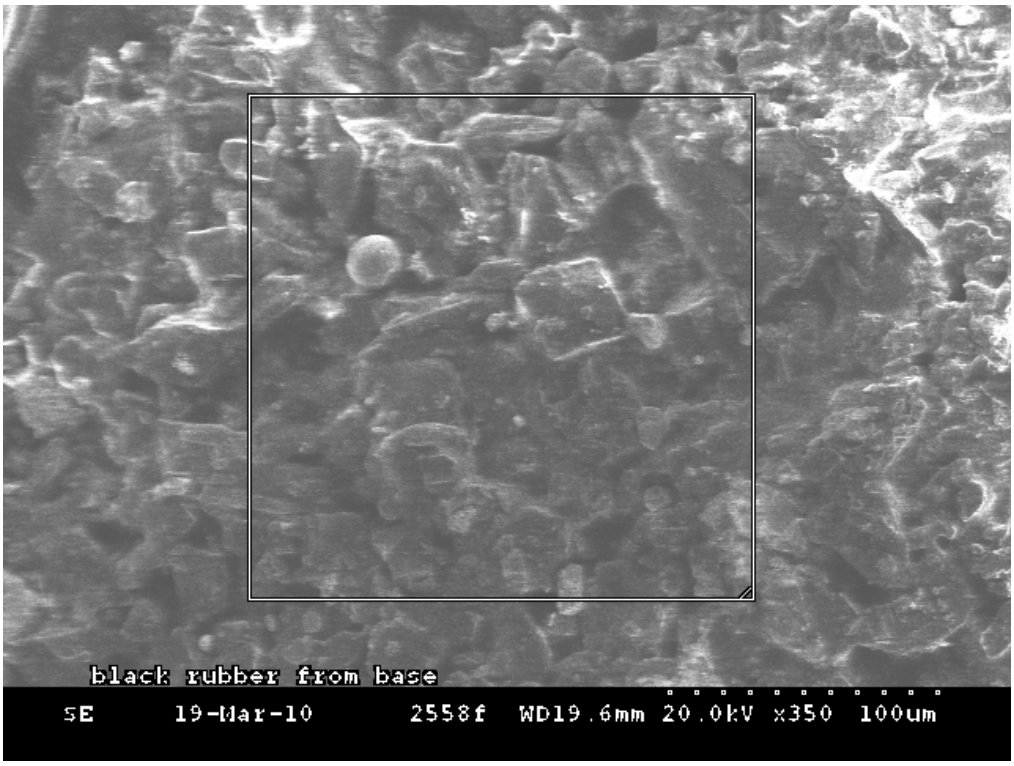


Figure 11

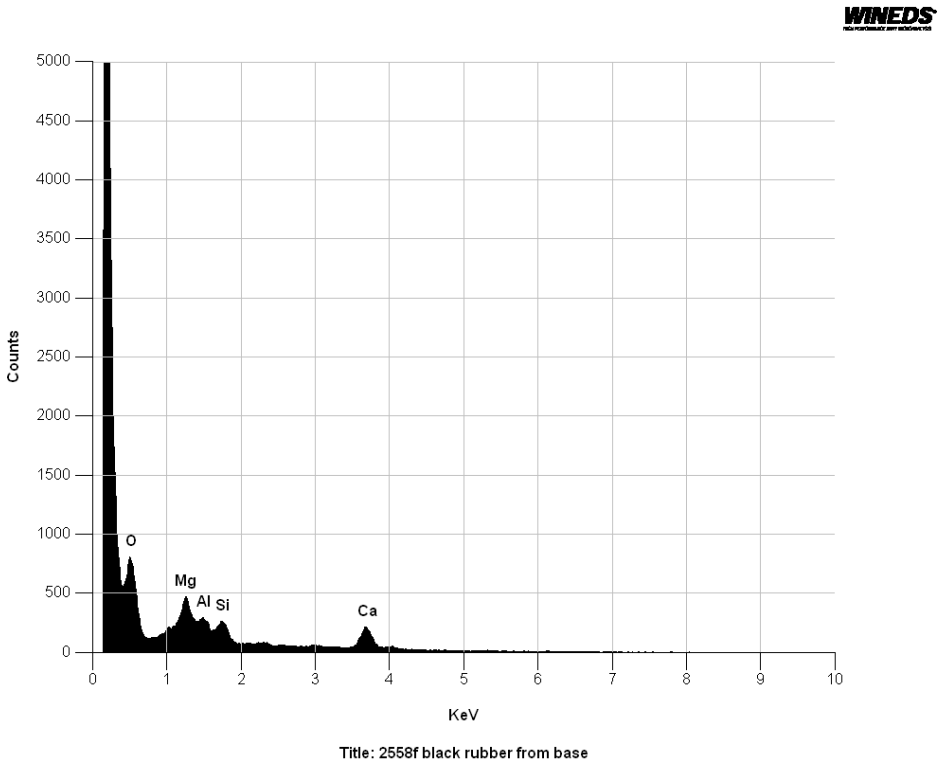


Figure 12

Materials Science & Engineering:
Microscopy Laboratory

ABN: 41 687 119 230

Corner Princes Highway & Henry Street,
Belmont, Geelong Victoria.
P.O. Box 21 Belmont VIC 3216 Australia
Phone: (03) 5246 4000
Fax: (03) 5246 4057