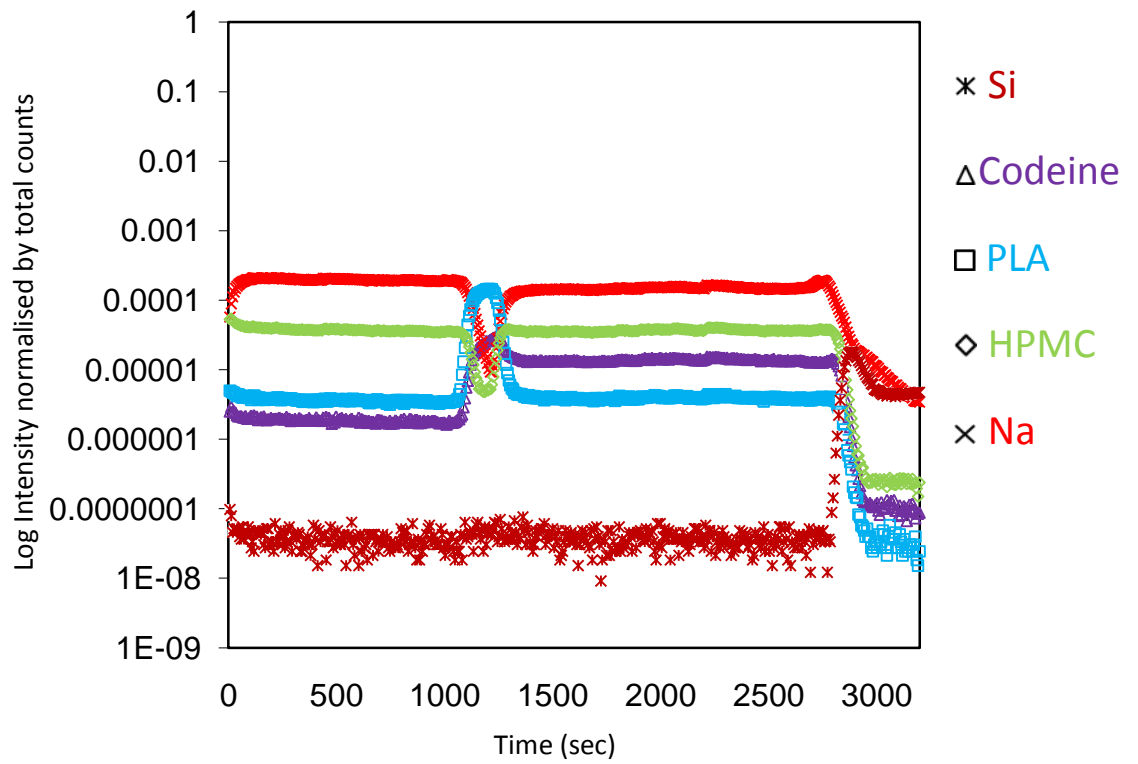


Appendix 1

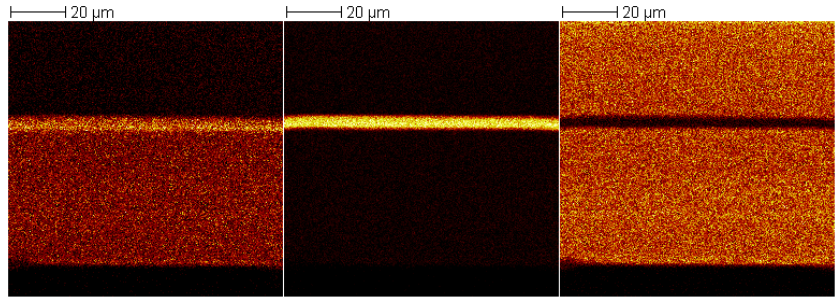
Supporting Information for Figure 4.4

Figure 4.4 is seen to have greater secondary ion counts than figures 4.2, 4.3 and 4.5 this due to an error in flood gun settings after the bismuth source was restarted due to a malfunction. To support the data shown in Figure 4.4 the data from the 2% HPMC films has been added in this appendix to show the profile produced is consistent with that shown in chapter 4 in the thicker model, in order to show the results of the experiment are still valid when compared with figures 4.2,3 and 5.

As this experiment was taken after the C_{60} source had undergone a service with parts being changed from running the experiments shown in chapter 4 the current generated was ~90 pA (maximum) in the work of chapter 4 it was ~200pA. The sputter rate observed for figure 4.4 was consistent with those of all other figures shown, in the data shown here the sputter rate is far slower yet the profile is consistent with that shown in figure 4.4.



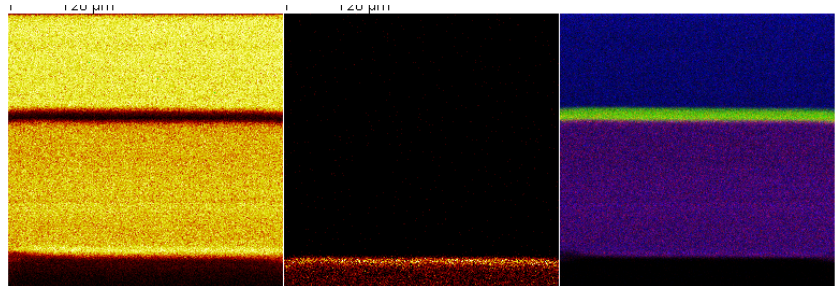
Field of view: 99.6 x 99.6 μm^2



Codeine

PLA

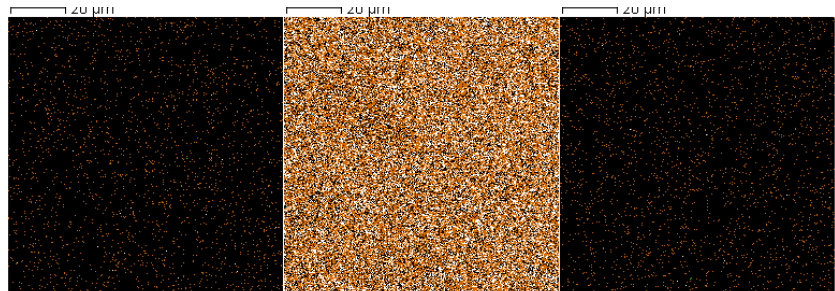
HPMC



Na

Si

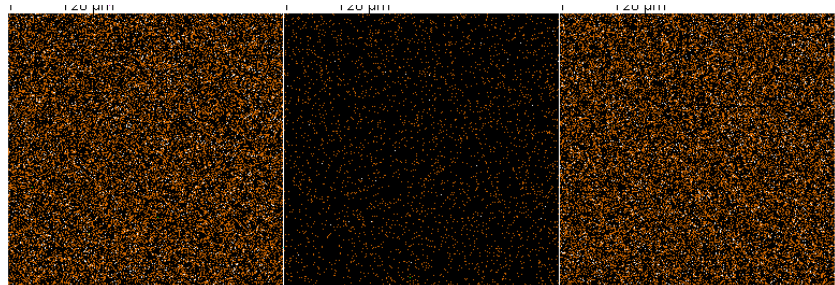
Overlay



PLA (Top)

PLA (in PLA)

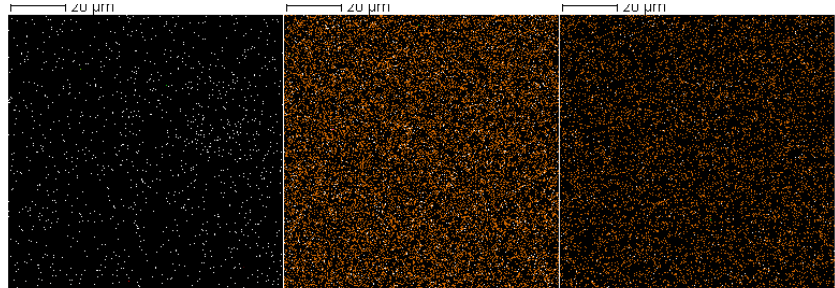
PLA (Bottom)



HPMC (Top)

HPMC (in PLA)

HPMC (Bottom)



Codeine (Top)

Codeine (in PLA)

Codeine (Bottom)