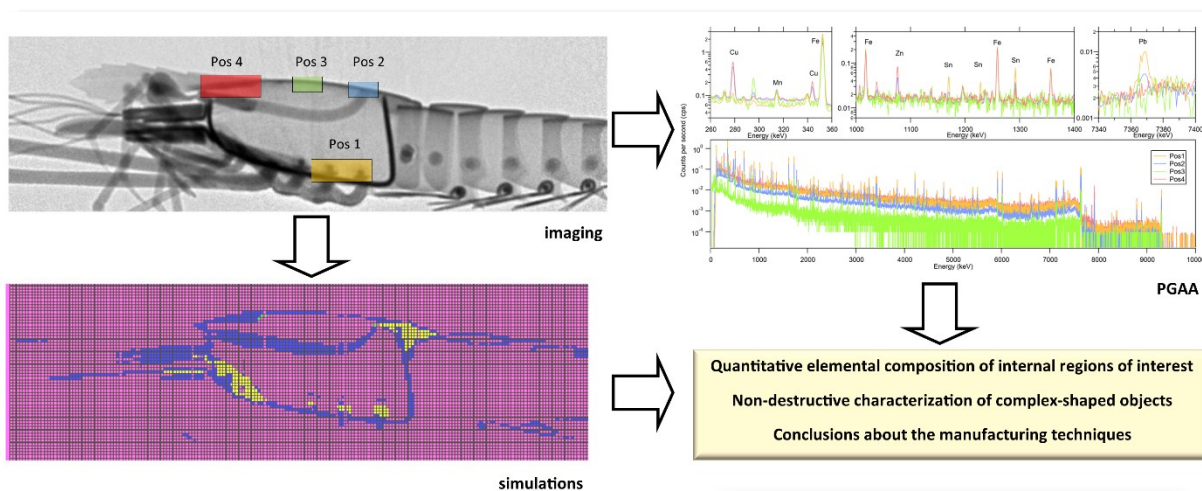


Electronic Supplementary Information to the paper

Revealing hidden features of a Japanese articulated iron lobster via non-destructive local element analysis and 3D imaging

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MEASUREMENT POSITION 1

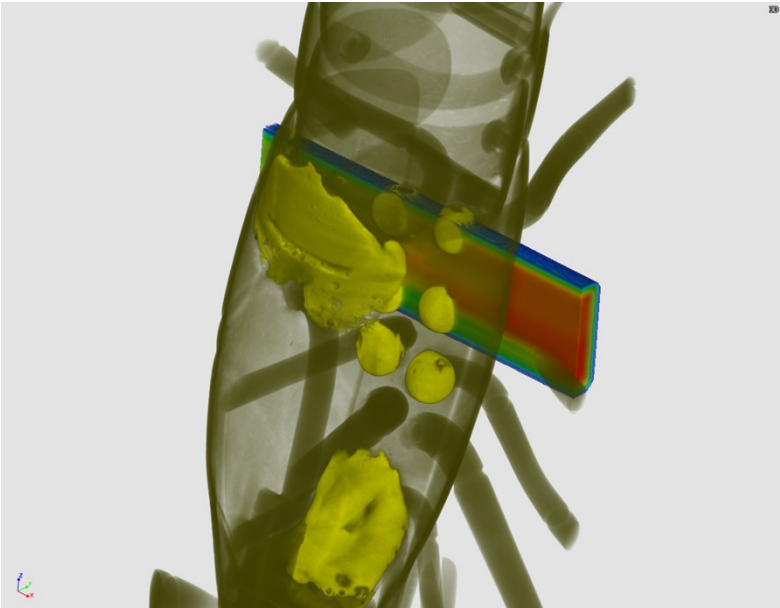


Figure 1. The 3D intensity map of the neutron beam as it passes through the object in measurement position 1

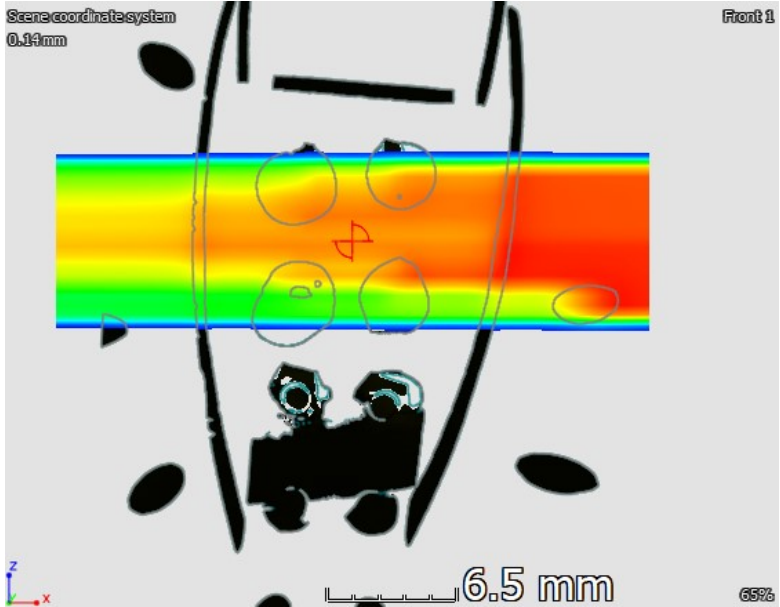


Figure 2. The 2D intensity map of the neutron beam as it passes through the object in measurement position 1 (from right to left, cut at the centre plane of the neutron beam)

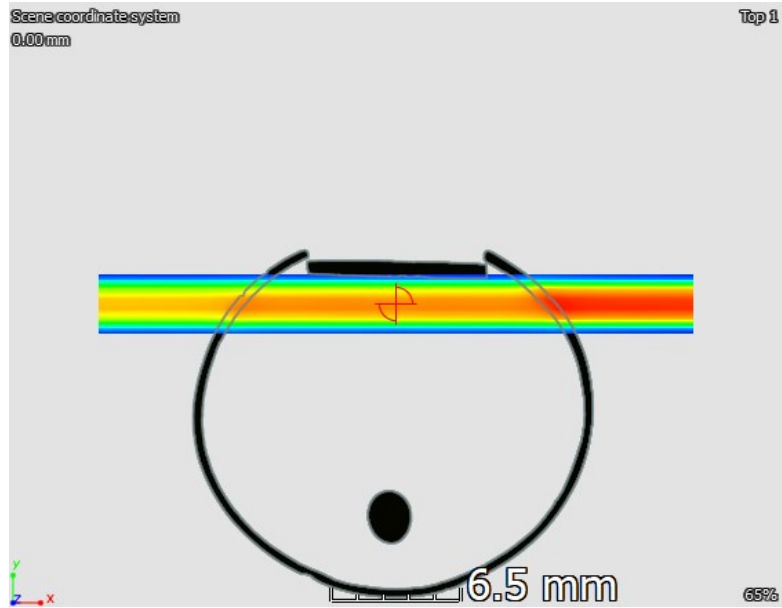


Figure 3. The 2D intensity map of the neutron beam as it passes through the object in measurement position 1 (from right to left, cut at the centre plane of the neutron beam)



Figure 4. The 2D intensity map of the neutron beam as it passes through the object in measurement position 1 (beam's eye view, cut at the centre of the object)

Fe

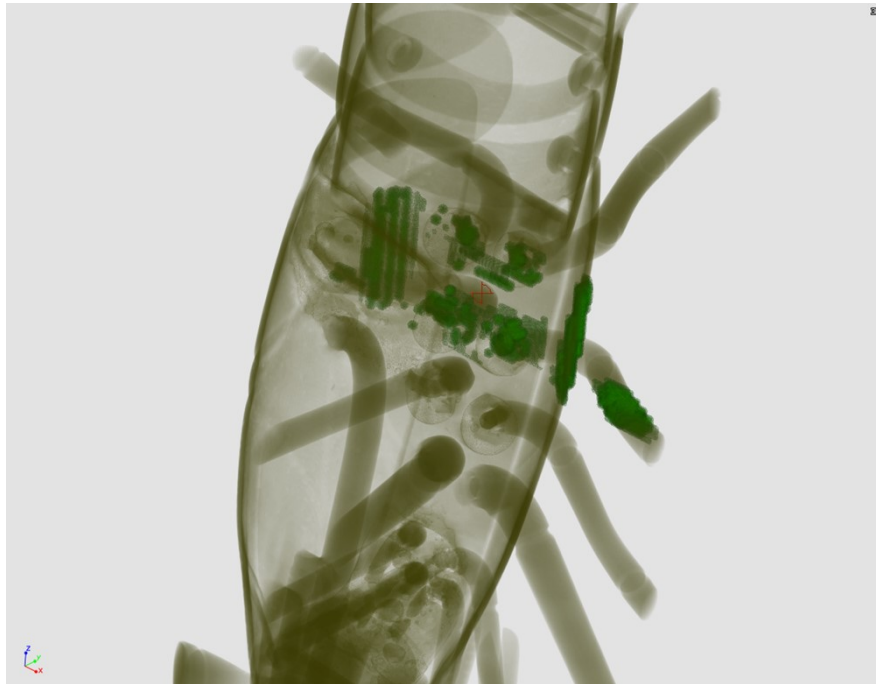


Figure 5. The 3D emission intensity map of element Fe

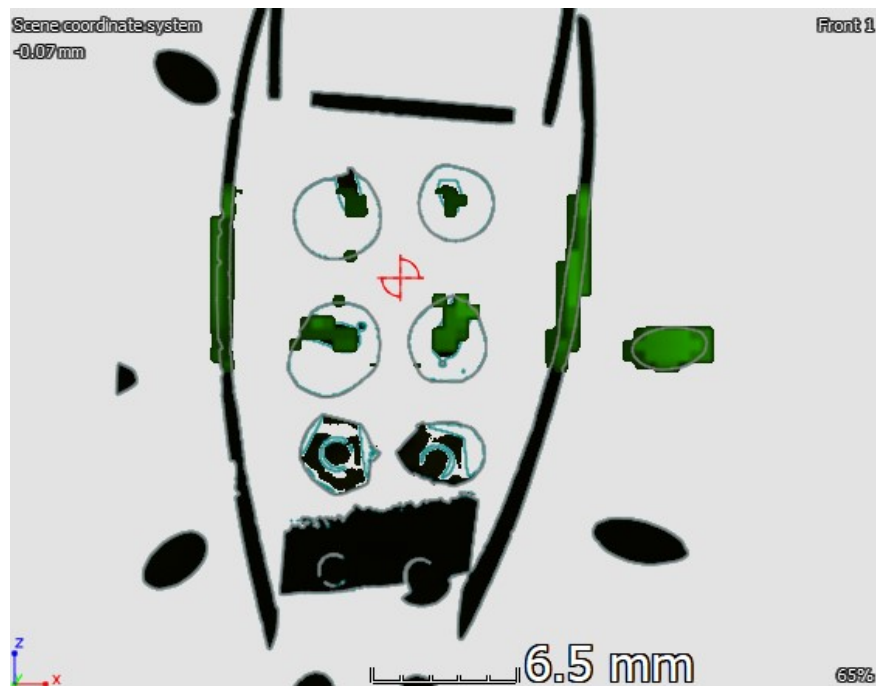


Figure 6. The 2D emission intensity map of element Fe (cut at the centre of the neutron beam)

Mn

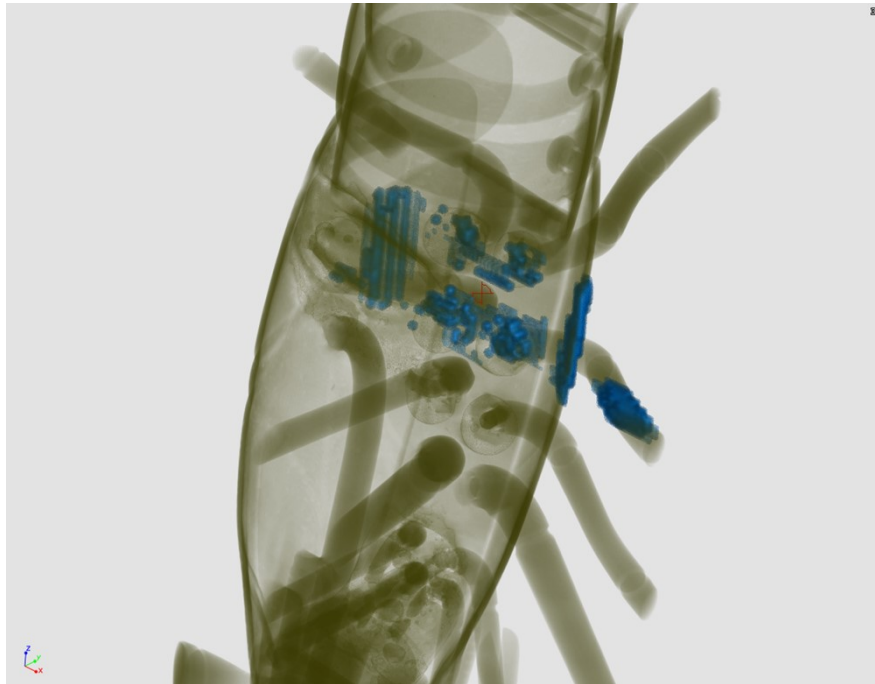


Figure 7. The 3D emission intensity map of element Mn

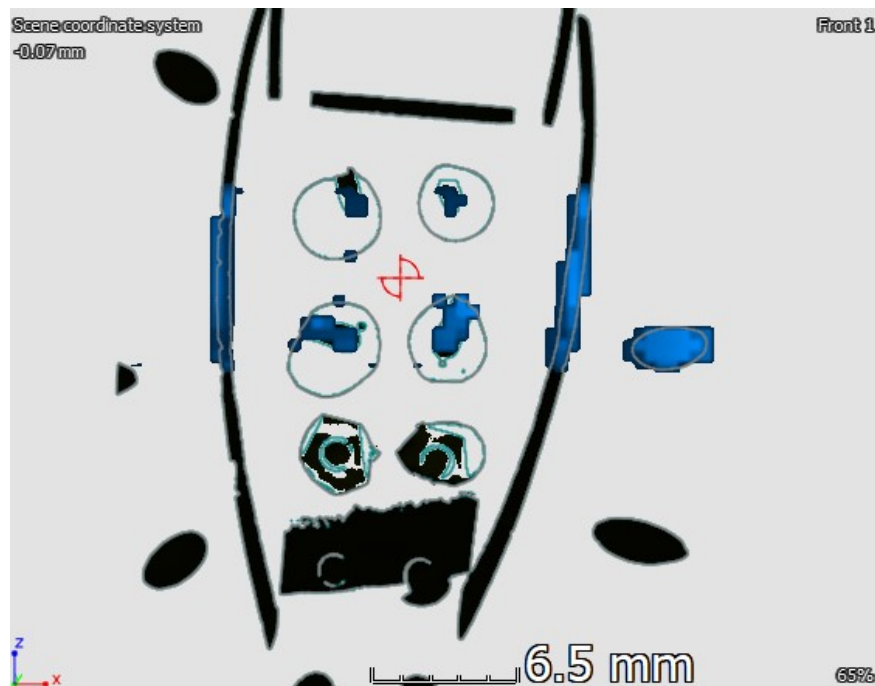


Figure 8. The 2D emission intensity map of element Mn (cut at the centre of the neutron beam)

Pb

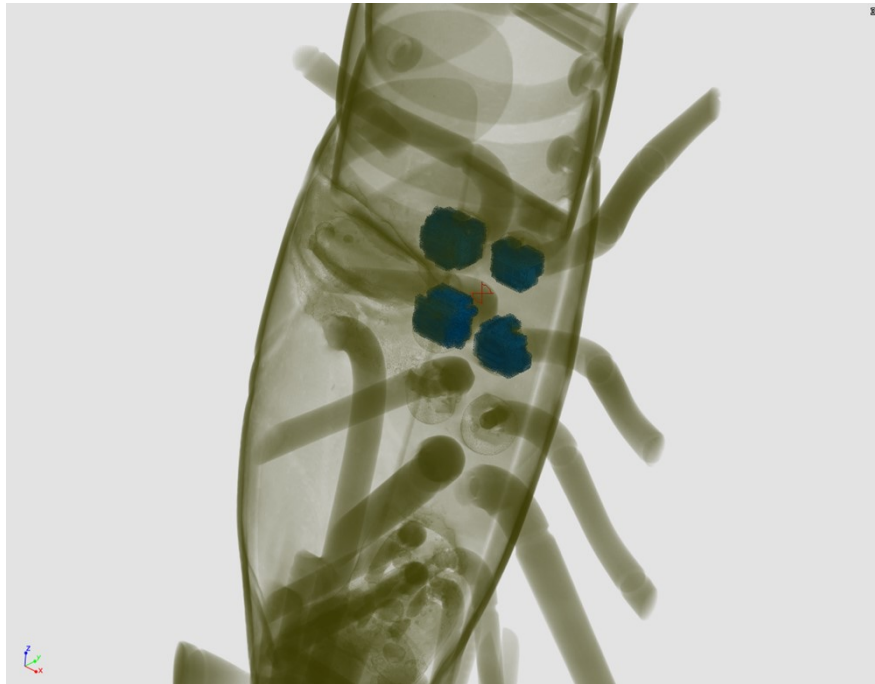


Figure 9. The 3D emission intensity map of element Pb

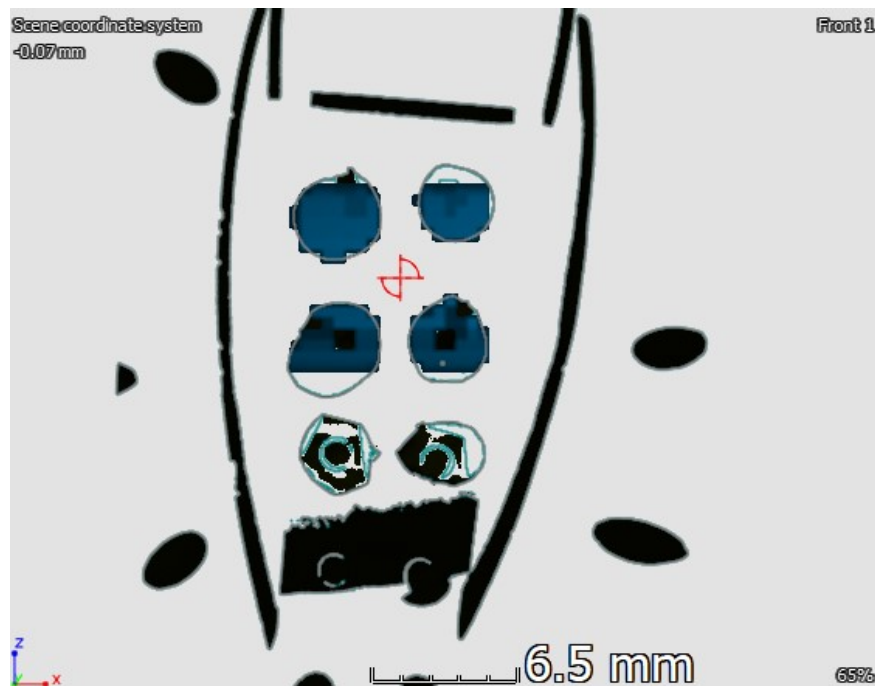


Figure 10. The 2D emission intensity map of element Pb (cut at the centre of the neutron beam)

Sn

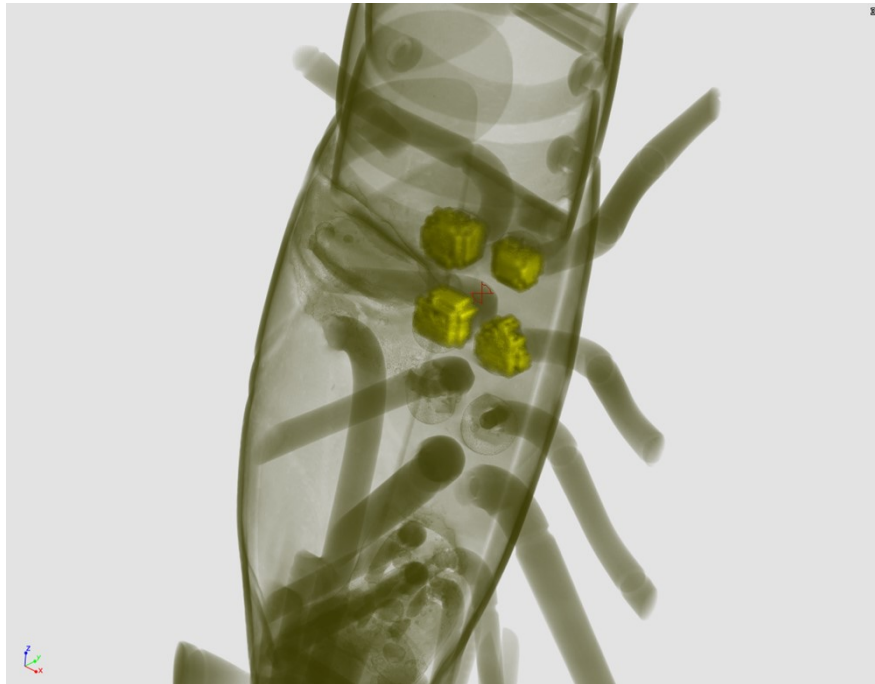


Figure 11. The 3D emission intensity map of element Sn

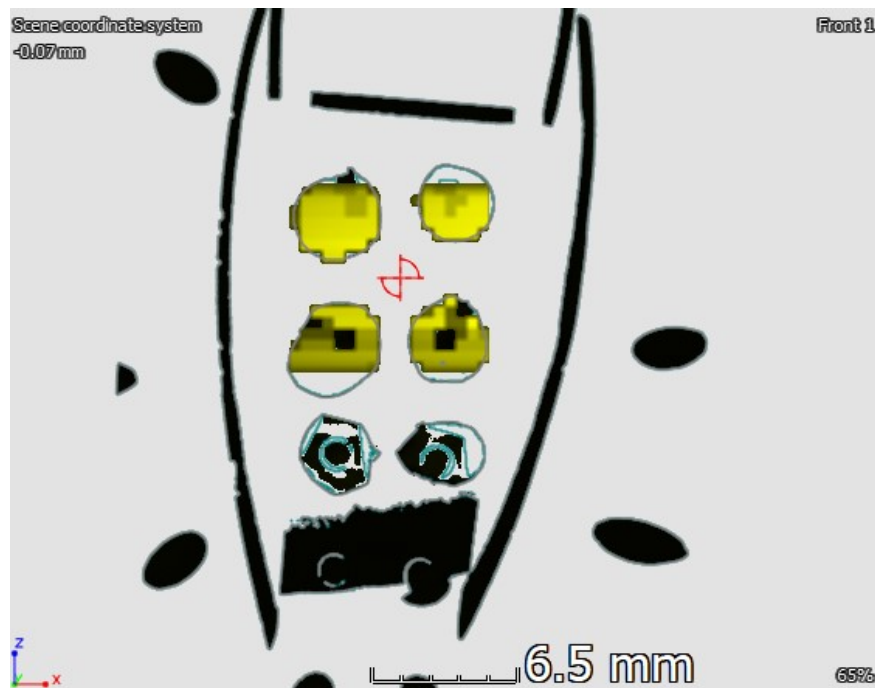


Figure 12. The 2D emission intensity map of element Sn (cut at the centre of the neutron beam)

MEASUREMENT POSITION 2

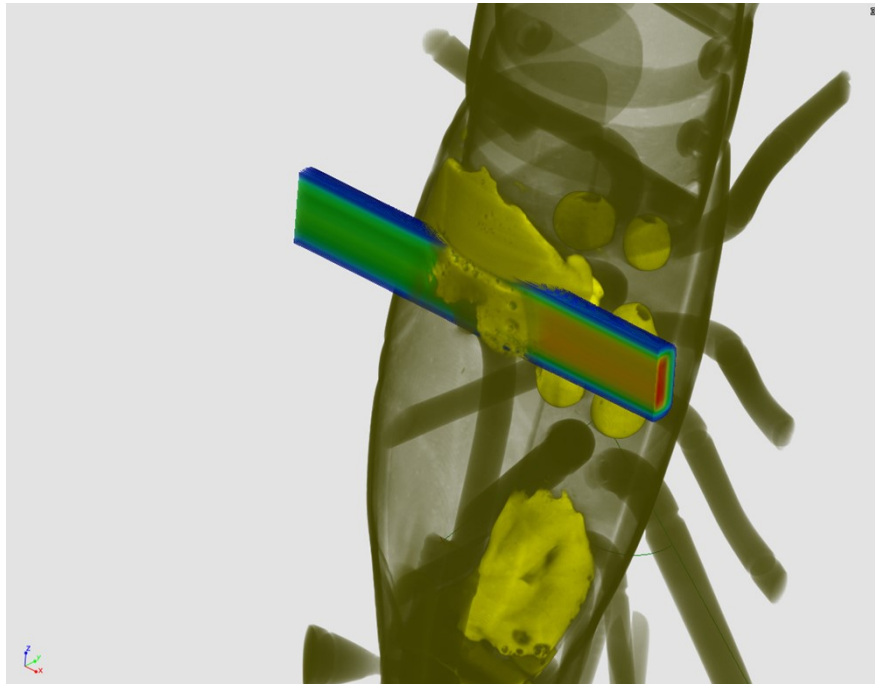


Figure 13. The 3D intensity map of the neutron beam as it passes through the object in measurement position 2



Figure 14. The 2D intensity map of the neutron beam as it passes through the object in measurement position 2 (from right to left, cut at the centre plane of the neutron beam)

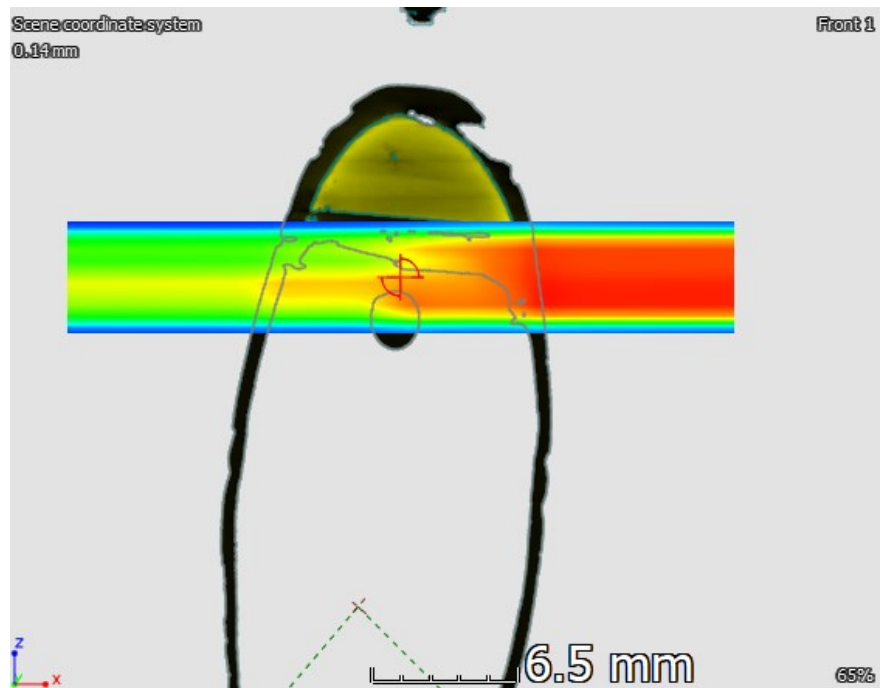


Figure 15. The 2D intensity map of the neutron beam as it passes through the object in measurement position 2 (from right to left, cut at -0.14 mm from the centre plane of the neutron beam)



Figure 16. The 2D intensity map of the neutron beam as it passes through the object in measurement position 2 (beam's eye view, cut at the centre of the object)

Fe

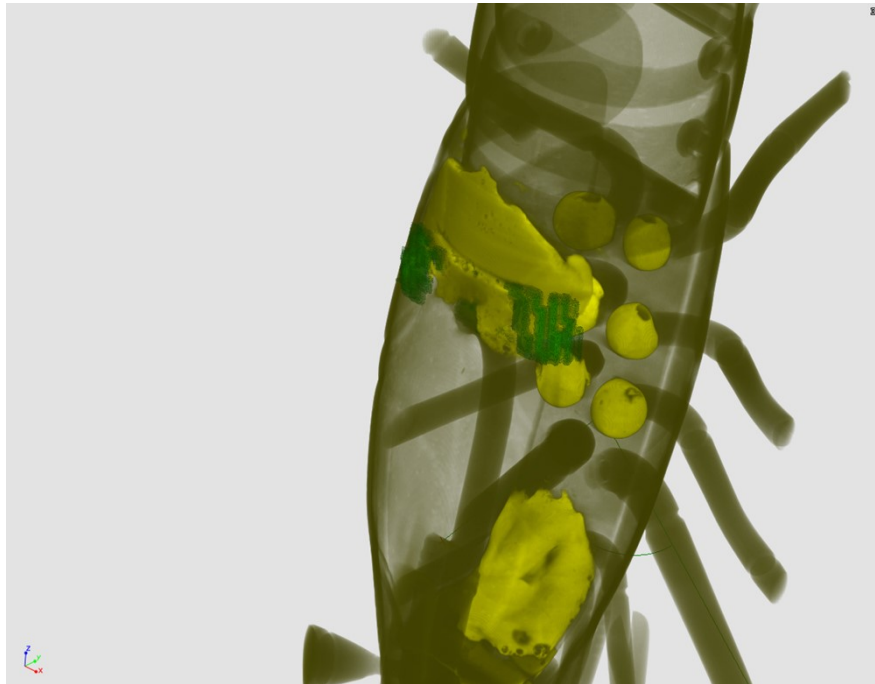


Figure 17. The 3D emission intensity map of element Fe

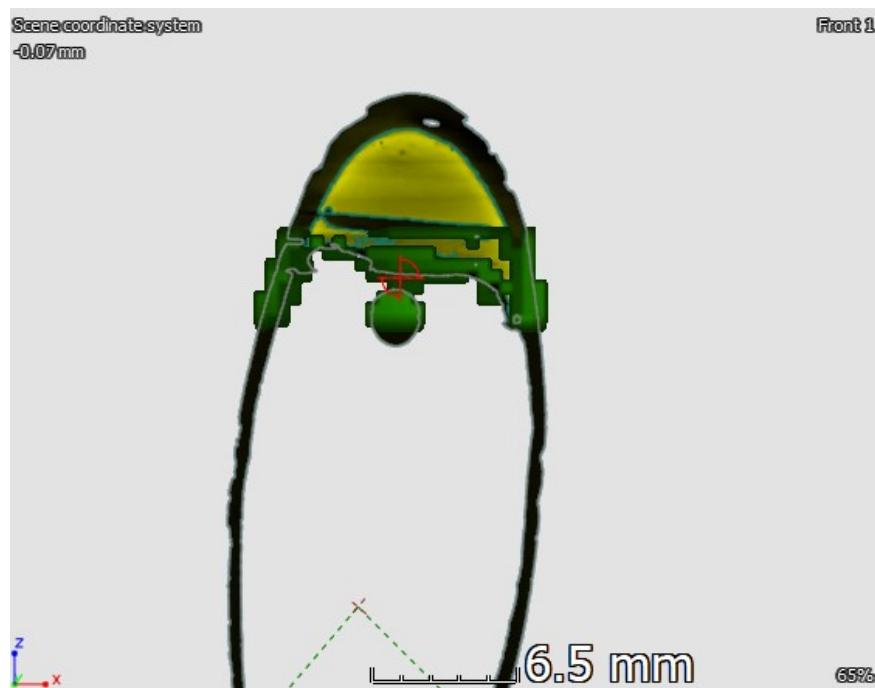


Figure 18. The 2D emission intensity map of element Fe (cut at the centre of the neutron beam)

Mn

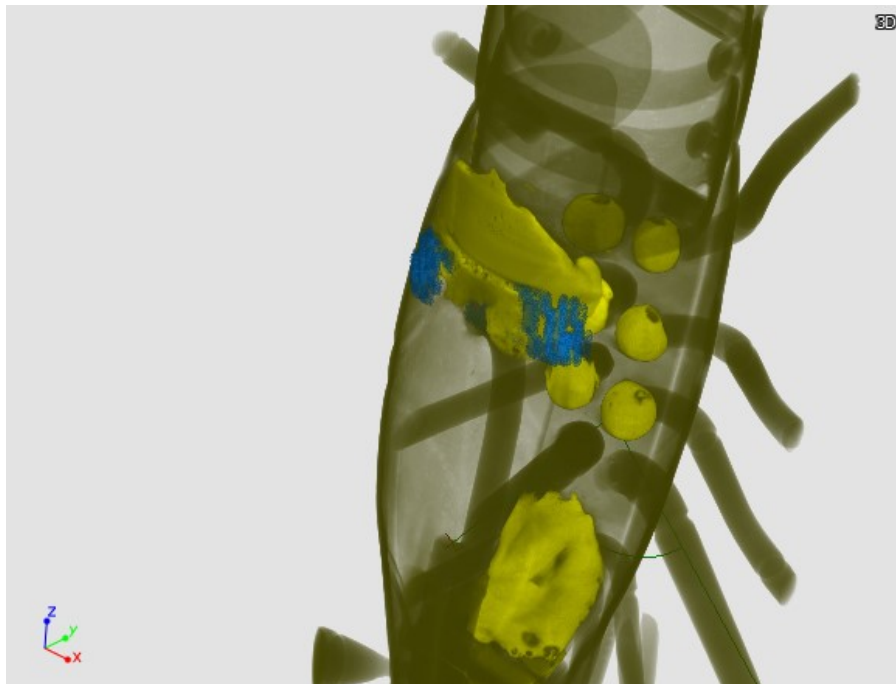


Figure 19. The 3D emission intensity map of element Mn

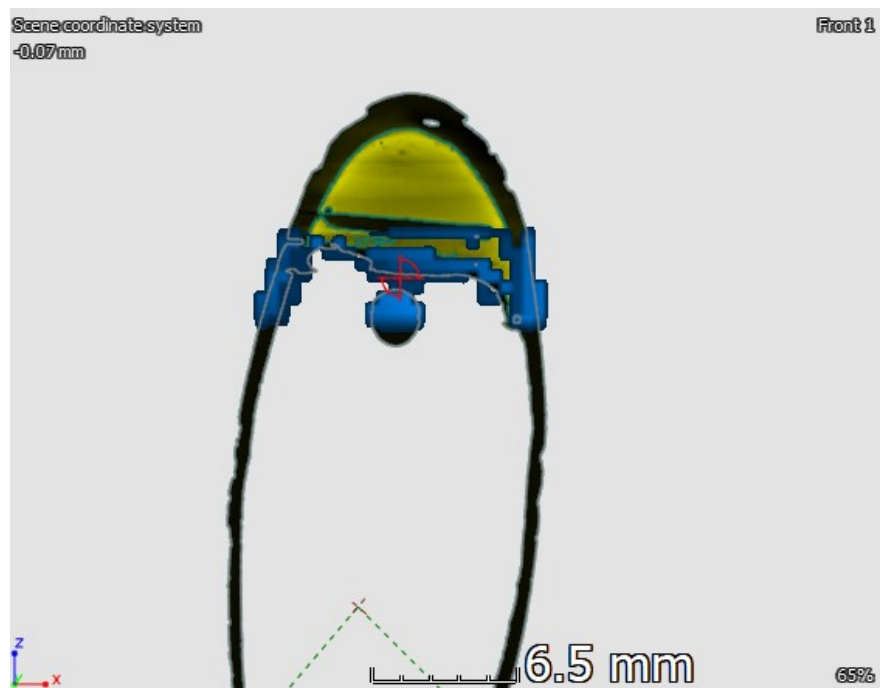


Figure 20. The 2D emission intensity map of element Mn (cut at the centre of the neutron beam)

Pb

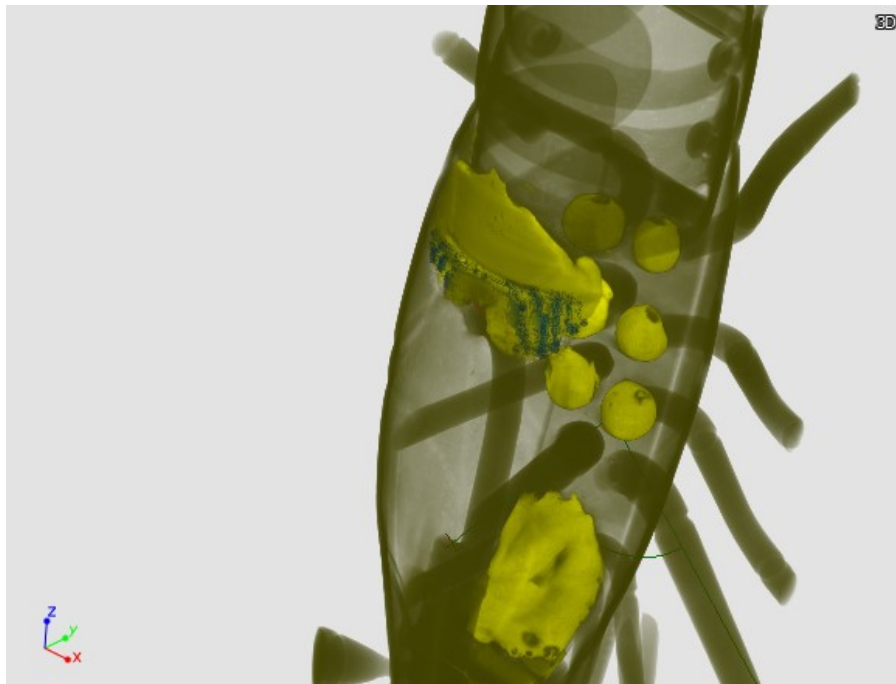


Figure 21. The 3D emission intensity map of element Pb



Figure 22. The 2D emission intensity map of element Pb (cut at the centre of the neutron beam)

Sn

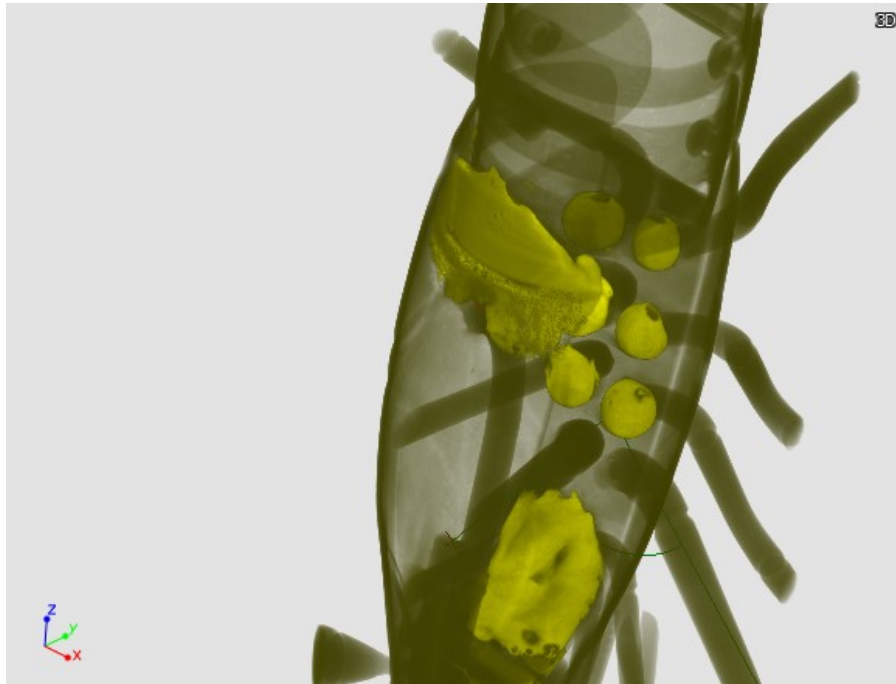


Figure 23. The 3D emission intensity map of element Sn

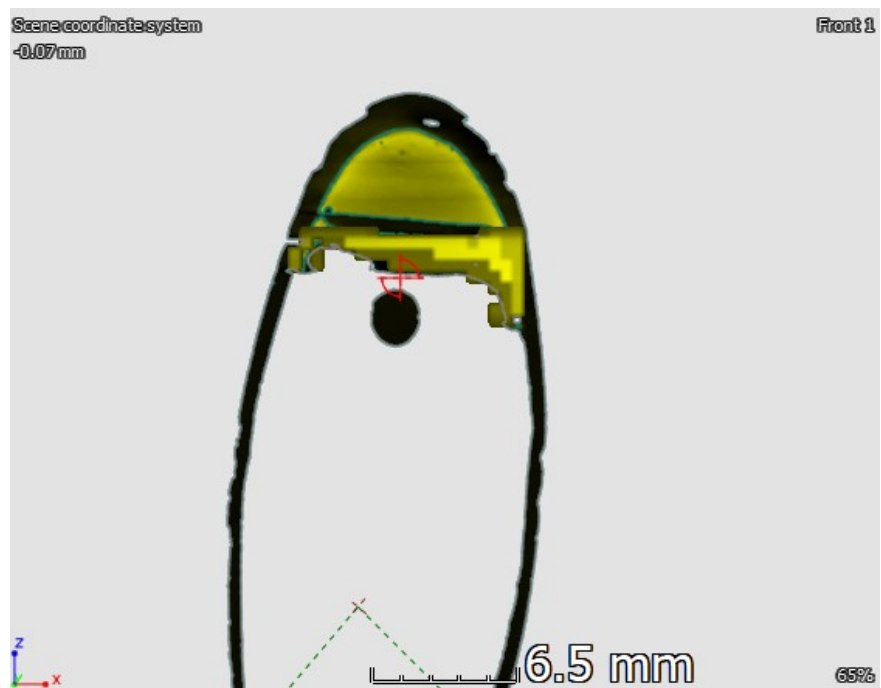


Figure 24. The 2D emission intensity map of element Sn (cut at the centre of the neutron beam)

Cu

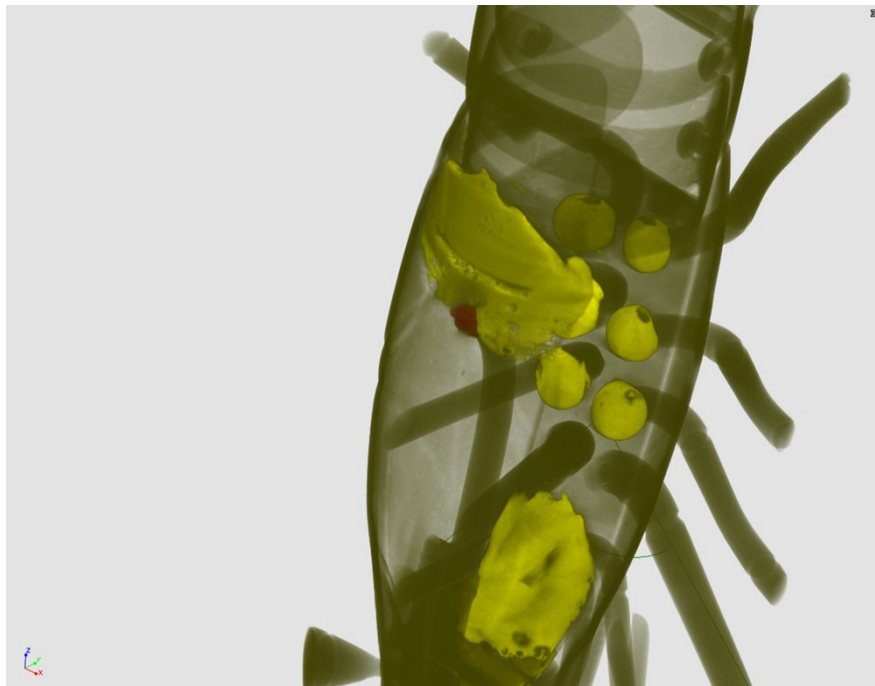


Figure 25. The 3D emission intensity map of element Cu



Figure 26. The 2D emission intensity map of element Cu (cut at -0.8 mm relative to the centre of the neutron beam)

Zn

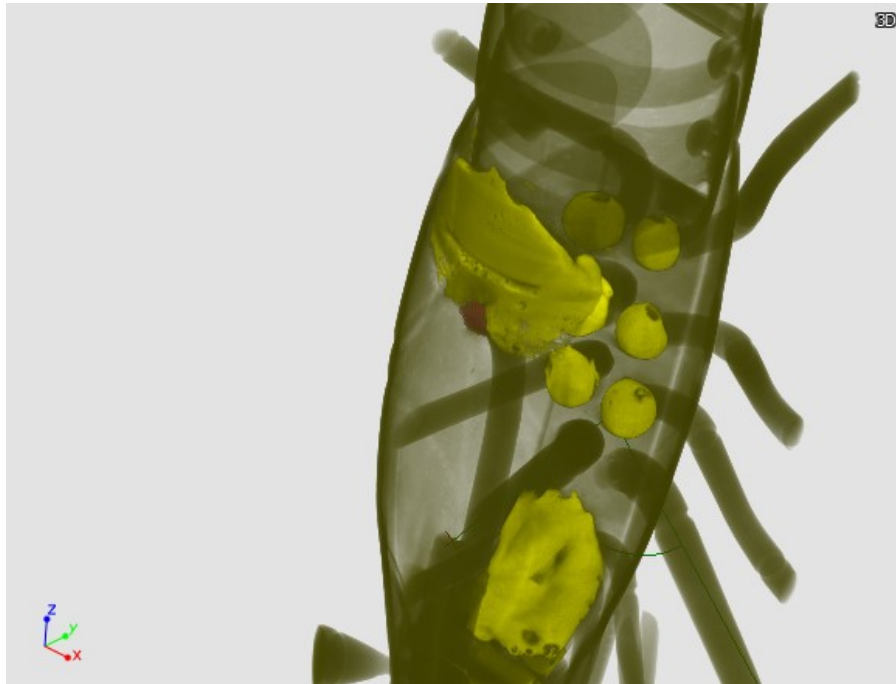


Figure 27. The 3D emission intensity map of element Zn



Figure 28. The 2D emission intensity map of element Zn (cut at -0.8 mm relative to the centre of the neutron beam)

MEASUREMENT POSITION 3

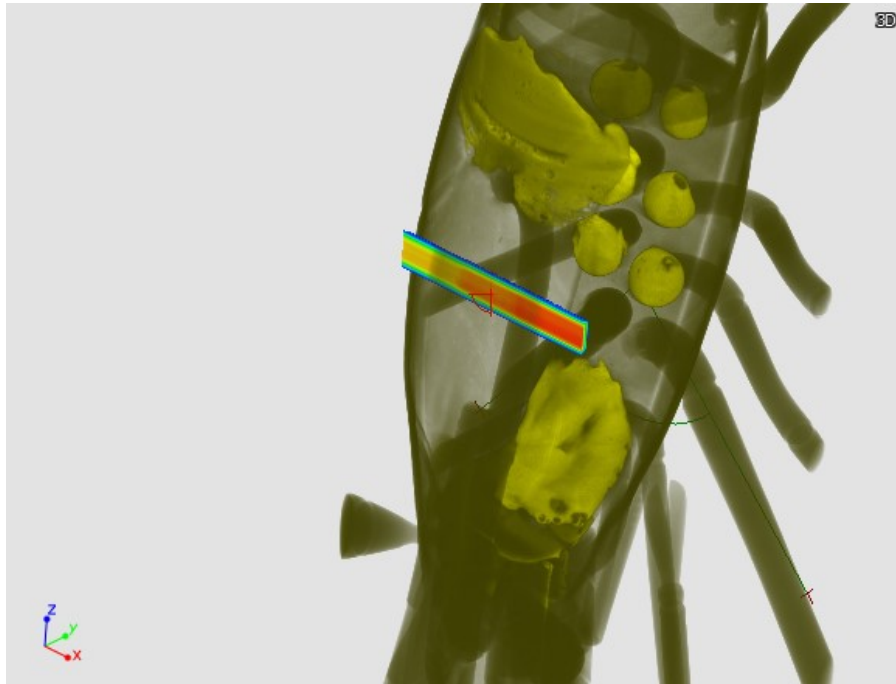


Figure 29. The 3D intensity map of the neutron beam as it passes through the object in measurement position 3

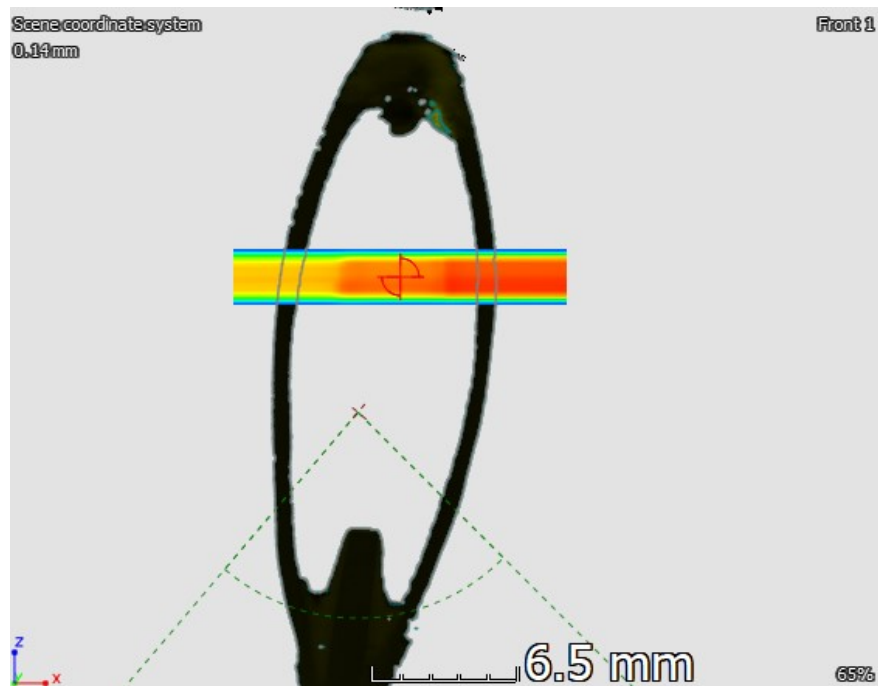


Figure 30. The 2D intensity map of the neutron beam as it passes through the object in measurement position 3 (from right to left, cut at the centre plane of the neutron beam)



Figure 31. The 2D intensity map of the neutron beam as it passes through the object in measurement position 3 (from right to left, cut at the centre plane of the neutron beam)



Figure 32. The 2D intensity map of the neutron beam as it passes through the object in measurement position 4 (beam's eye view, cut at the centre of the object)

Fe

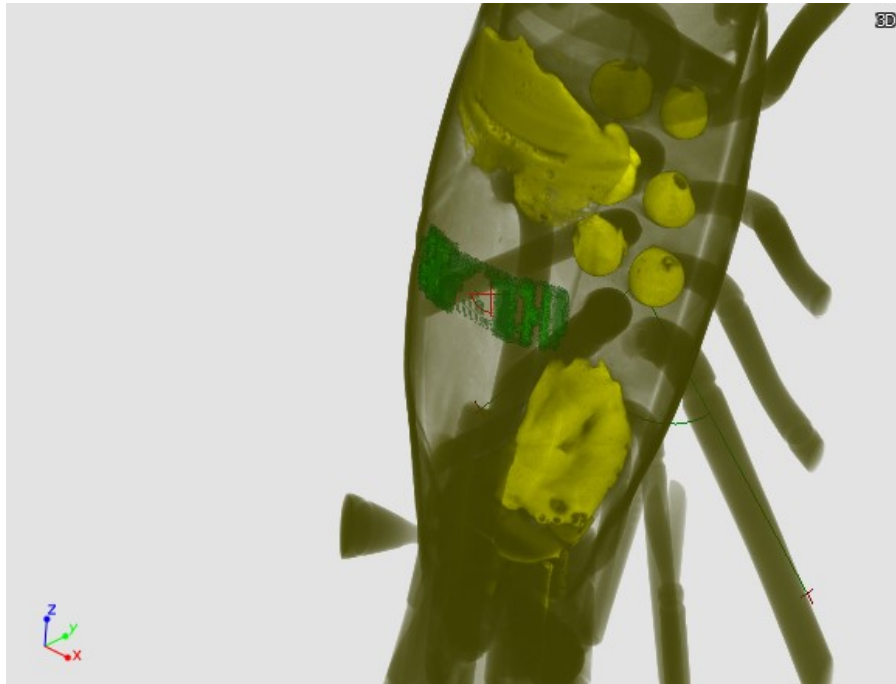


Figure 33. The 3D emission intensity map of element Fe



Figure 34. The 2D emission intensity map of element Fe (cut at -0.2 mm relative to the centre of the neutron beam)

Mn

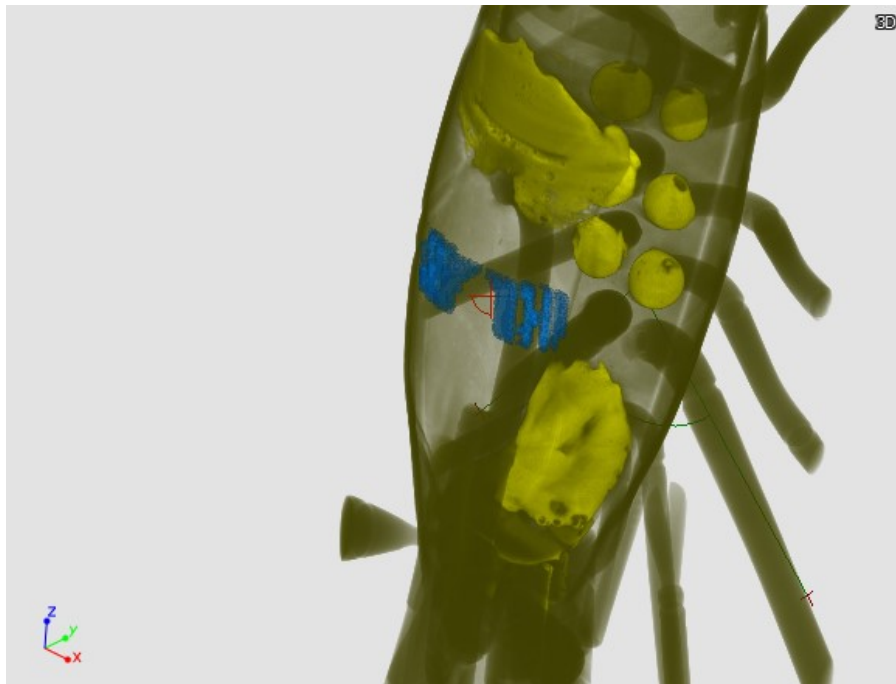


Figure 35. The 3D emission intensity map of element Mn

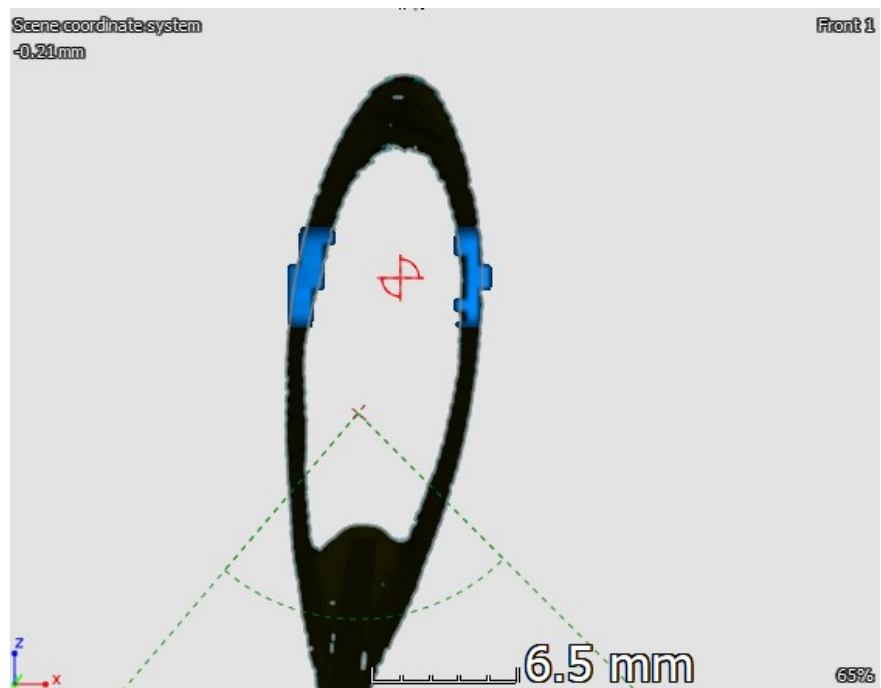


Figure 36. The 2D emission intensity map of element Mn (cut at -0.2 mm relative to the centre of the neutron beam)

MEASUREMENT POSITION 4

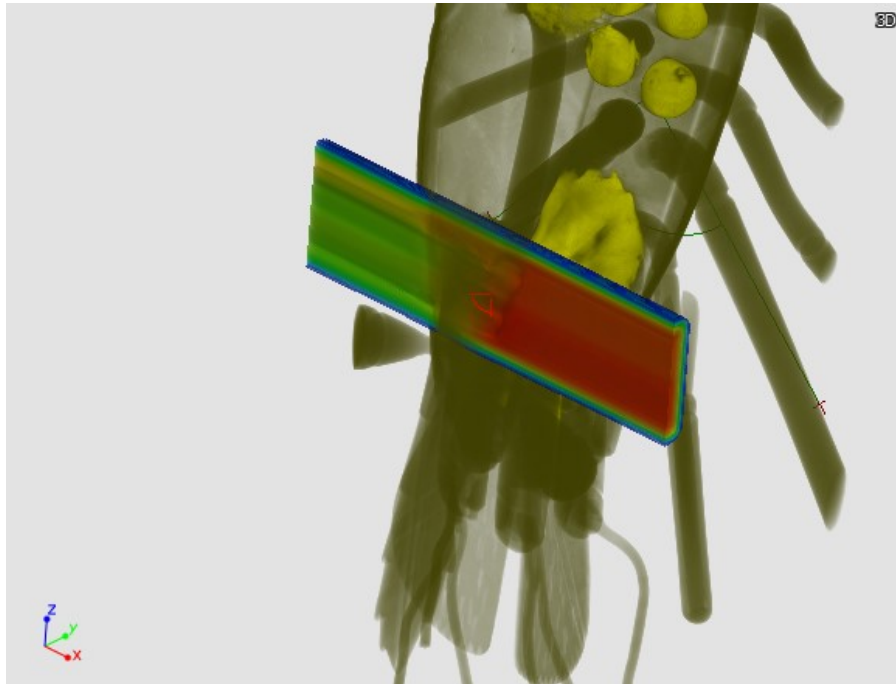


Figure 37. The 3D intensity map of the neutron beam as it passes through the object in measurement position 4

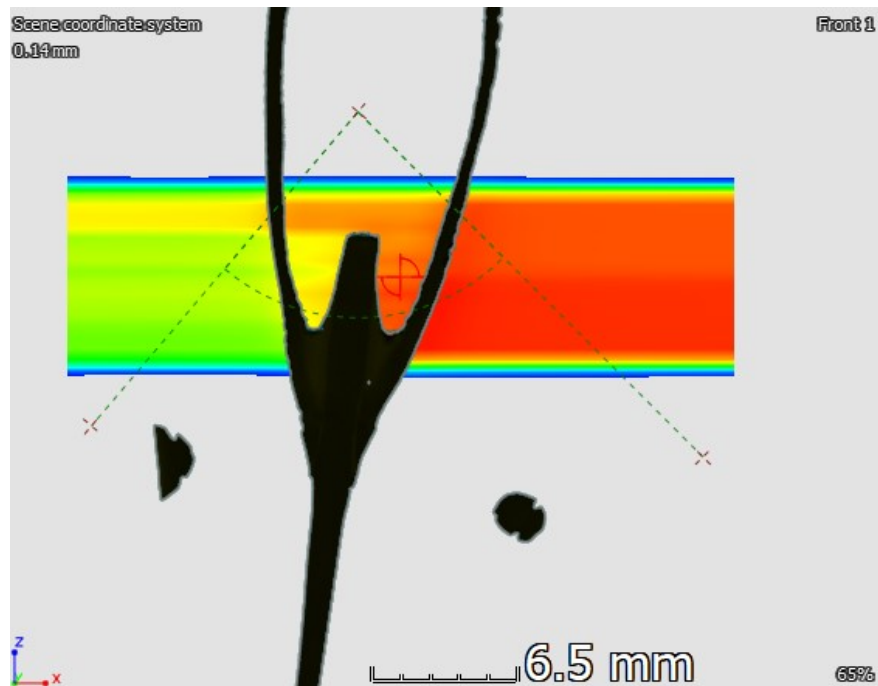


Figure 38. The 2D intensity map of the neutron beam as it passes through the object in measurement position 4 (from right to left, cut at 0.14 mm from the centre plane of the neutron beam)



Figure 39. The 2D intensity map of the neutron beam as it passes through the object in measurement position 4 (from right to left, cut at the centre plane of the neutron beam)

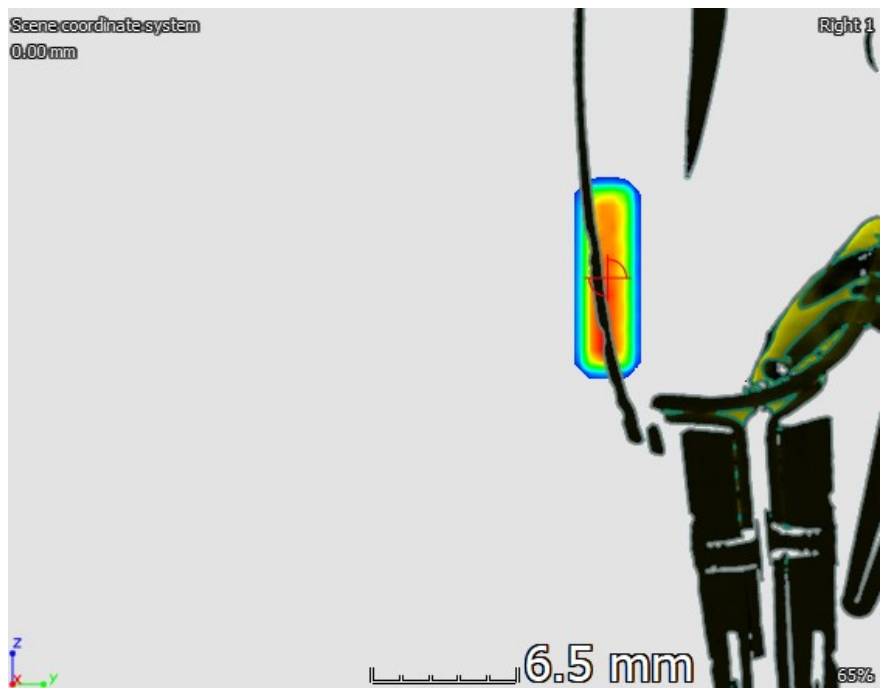


Figure 40. The 2D intensity map of the neutron beam as it passes through the object in measurement position 4 (beam's eye view, cut at the centre of the object)

Fe

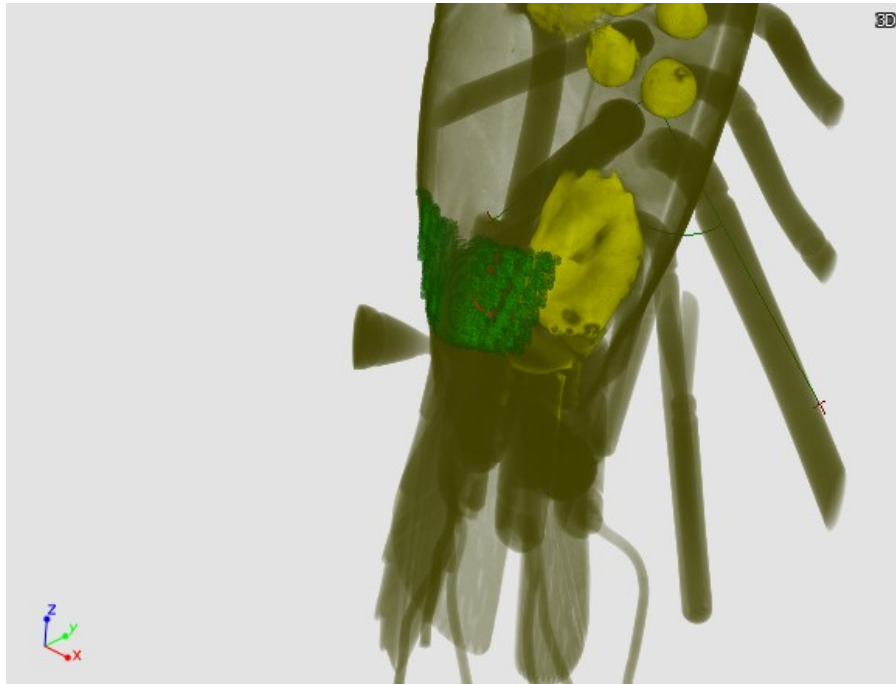


Figure 41. The 3D emission intensity map of element Fe

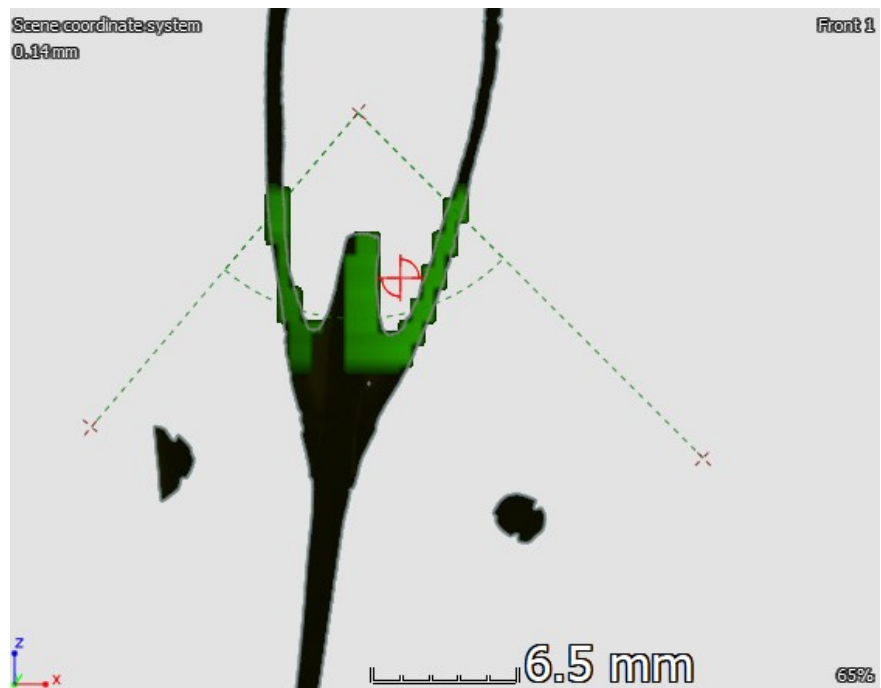


Figure 42. The 2D emission intensity map of element Fe (cut at -0.14 mm relative to the centre of the neutron beam)

Mn

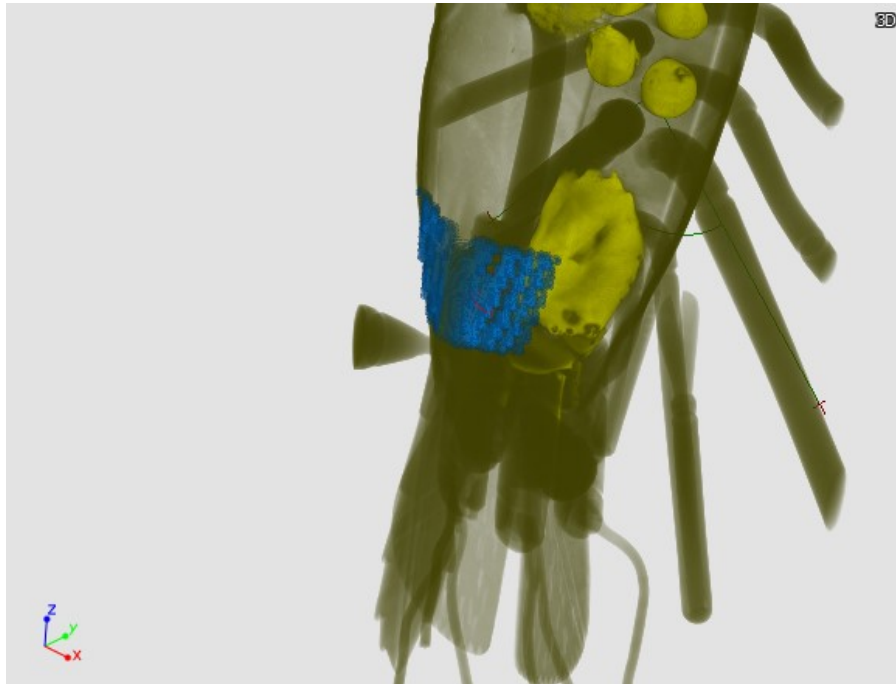


Figure 43. The 3D emission intensity map of element Mn

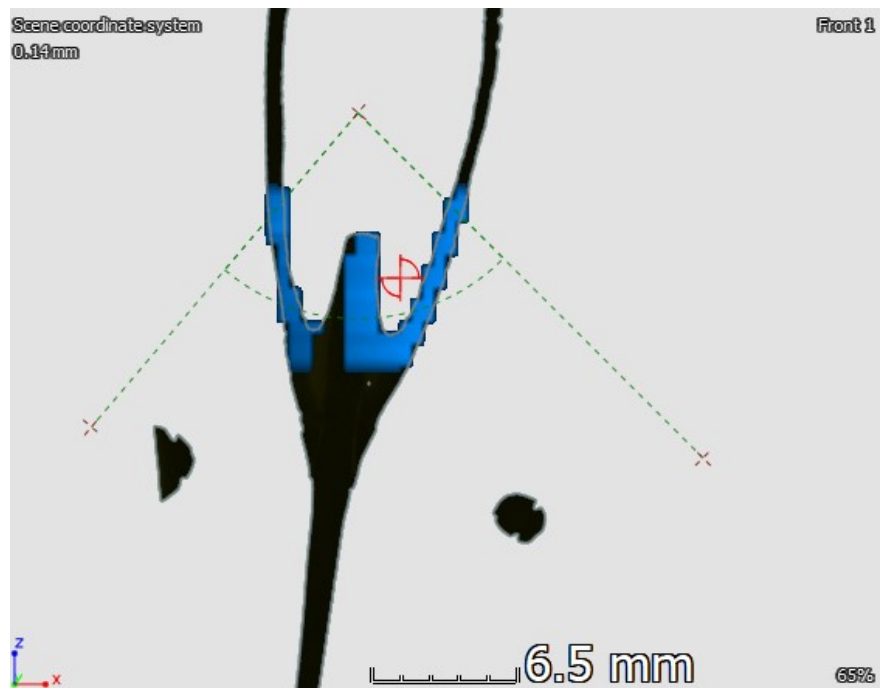


Figure 44. The 2D emission intensity map of element Mn (cut at -0.14 mm relative to the centre of the neutron beam)

Cu



Figure 45. The 3D emission intensity map of element Cu

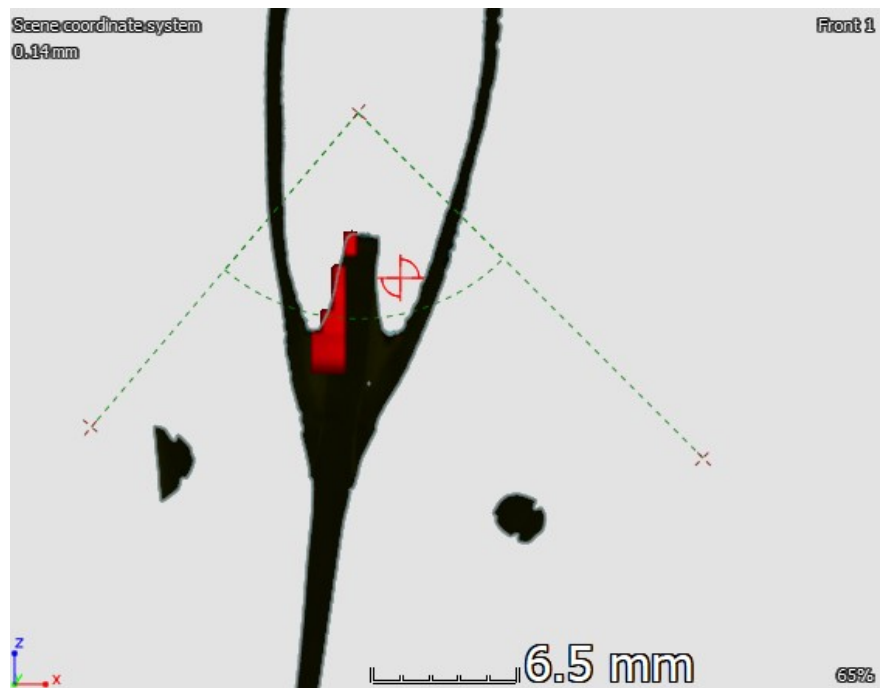


Figure 46. The 2D emission intensity map of element Cu (cut at -0.14 mm relative to the centre of the neutron beam)

Zn

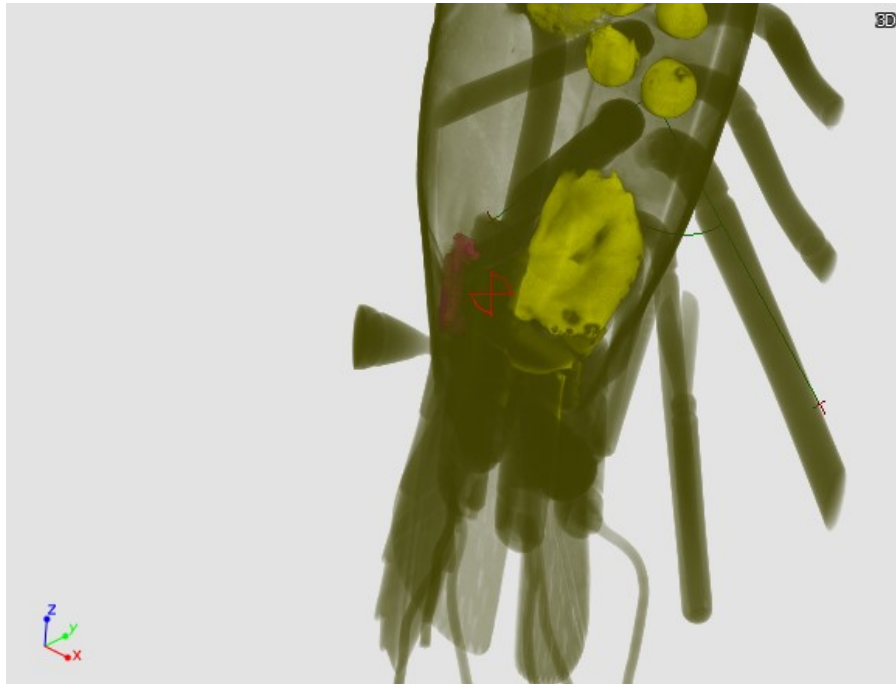


Figure 47. The 3D emission intensity map of element Zn

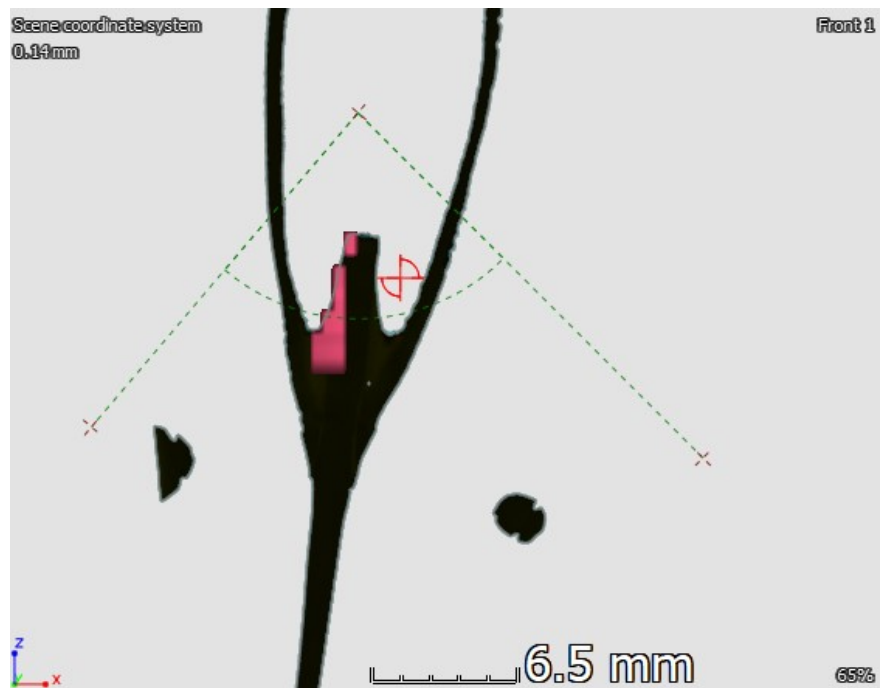


Figure 48. The 2D emission intensity map of element Zn (cut at -0.14 mm relative to the centre of the neutron beam)