



# SU7000

Sample run on Large Cu Metal block sample  
on Hitachi High Performance UHR VP FE-SEM **SU7000**  
for STFC



December 2019  
Yukari Dan  
Hitachi High-Technologies Europe GmbH, UK

# Results

## Large Cu Metal Block

- Observation Condition

Accelerating Voltage : 15 kV, 30 kV

Signal : SE(UD,LD), PDBSE(COMPO,TOPO)

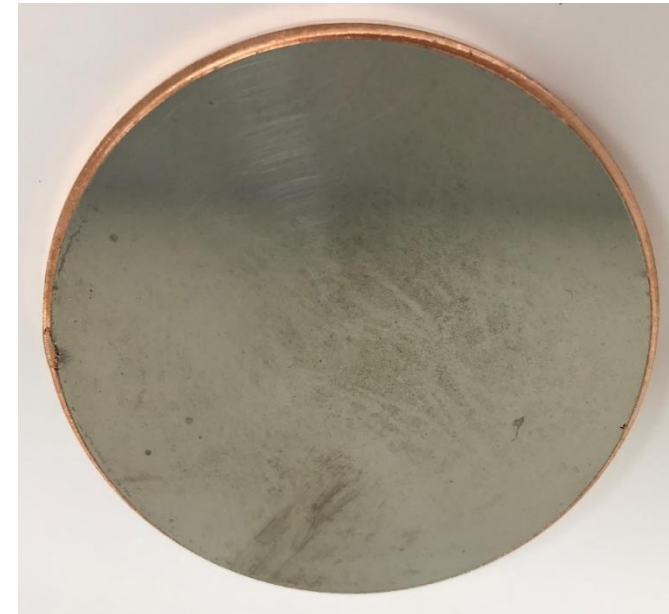
Magnification : 150x

- EDX analysis Condition

Accelerating Voltage : 30 kV (SU7000 + OXFORD Ultimax170)

6 kV (Regulus FE-SEM + Bruker FQ)

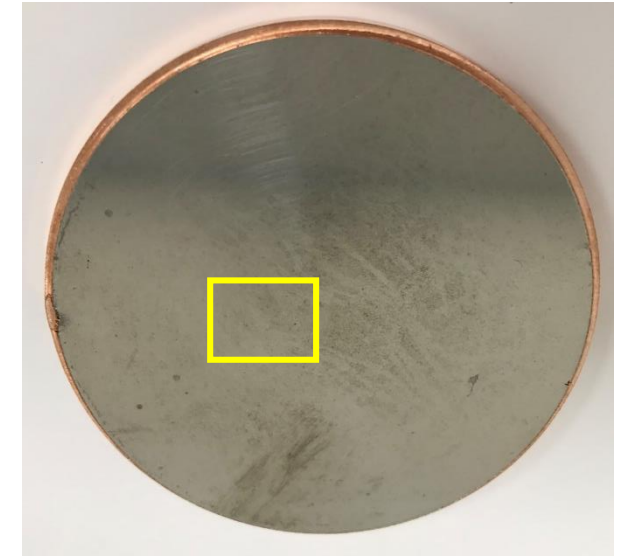
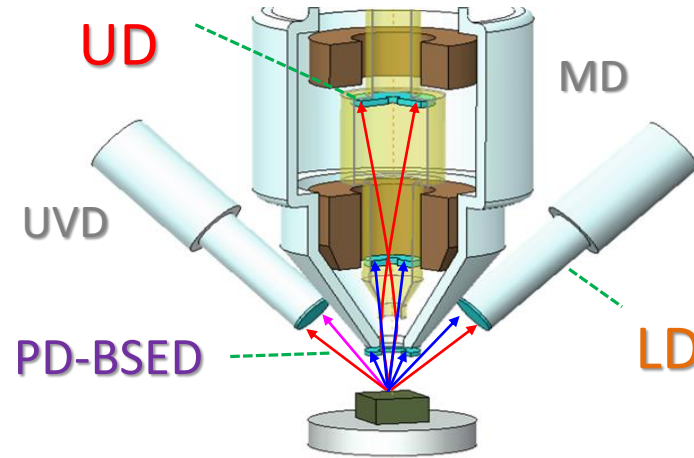
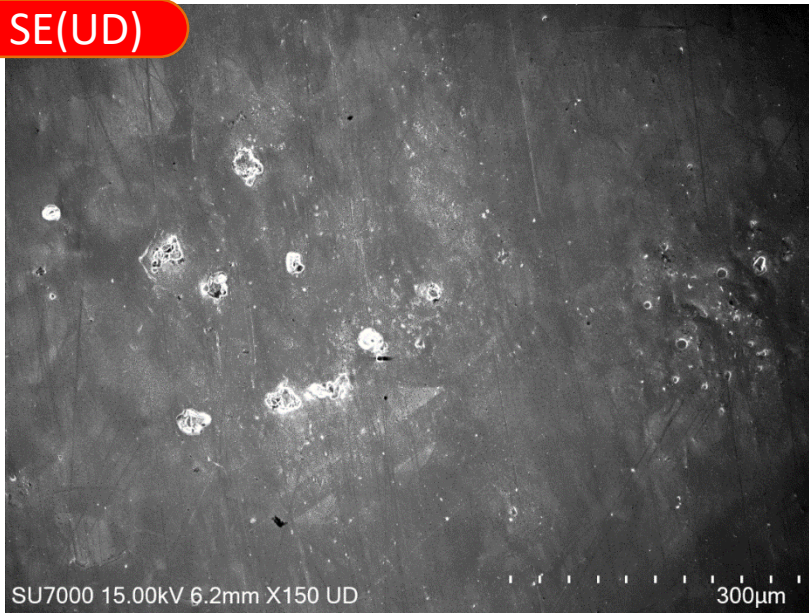
Signal : PDBSE(COMPO)



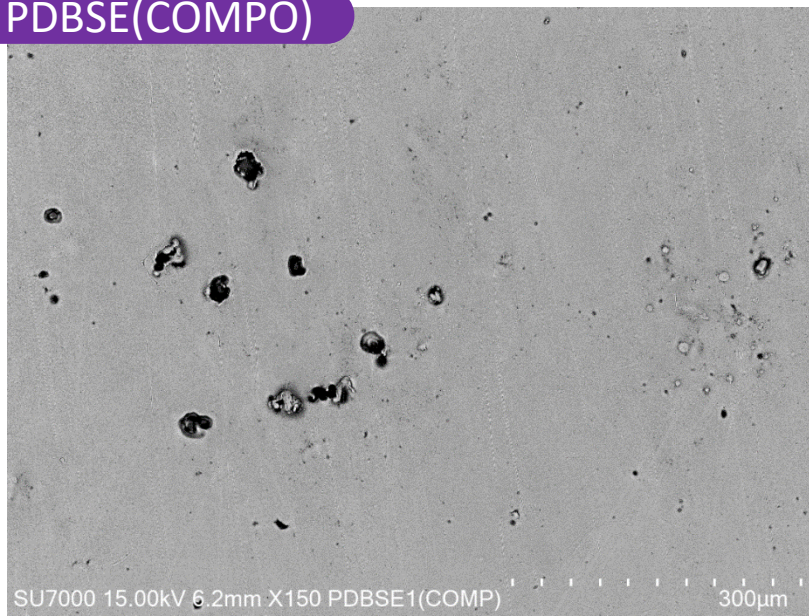
# Large Cu Metal Block

Accelerating Voltage : 15 kV

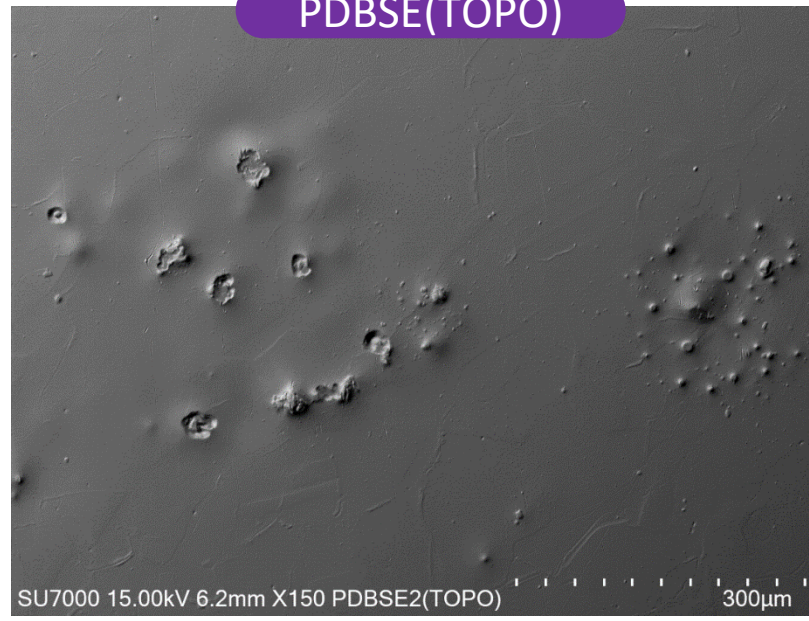
SE(UD)



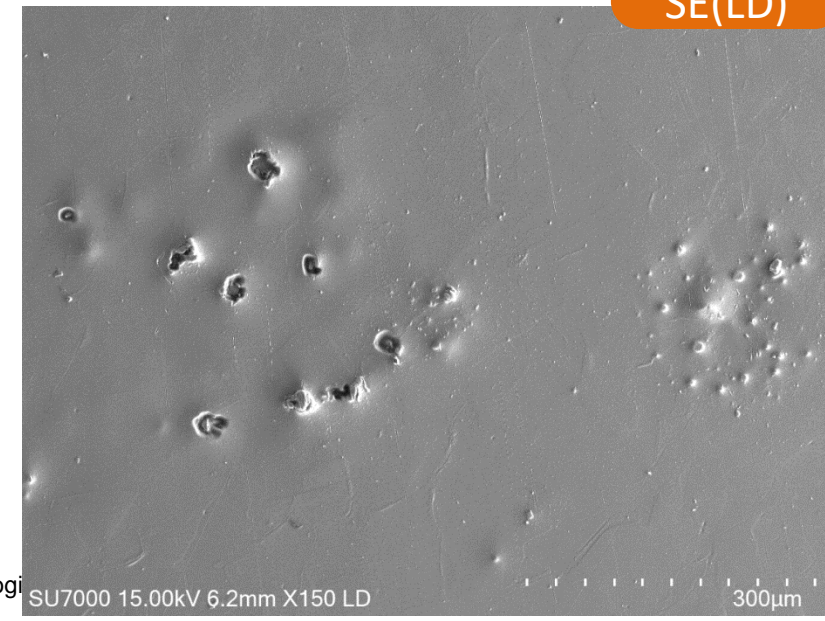
PDBSE(COMPO)

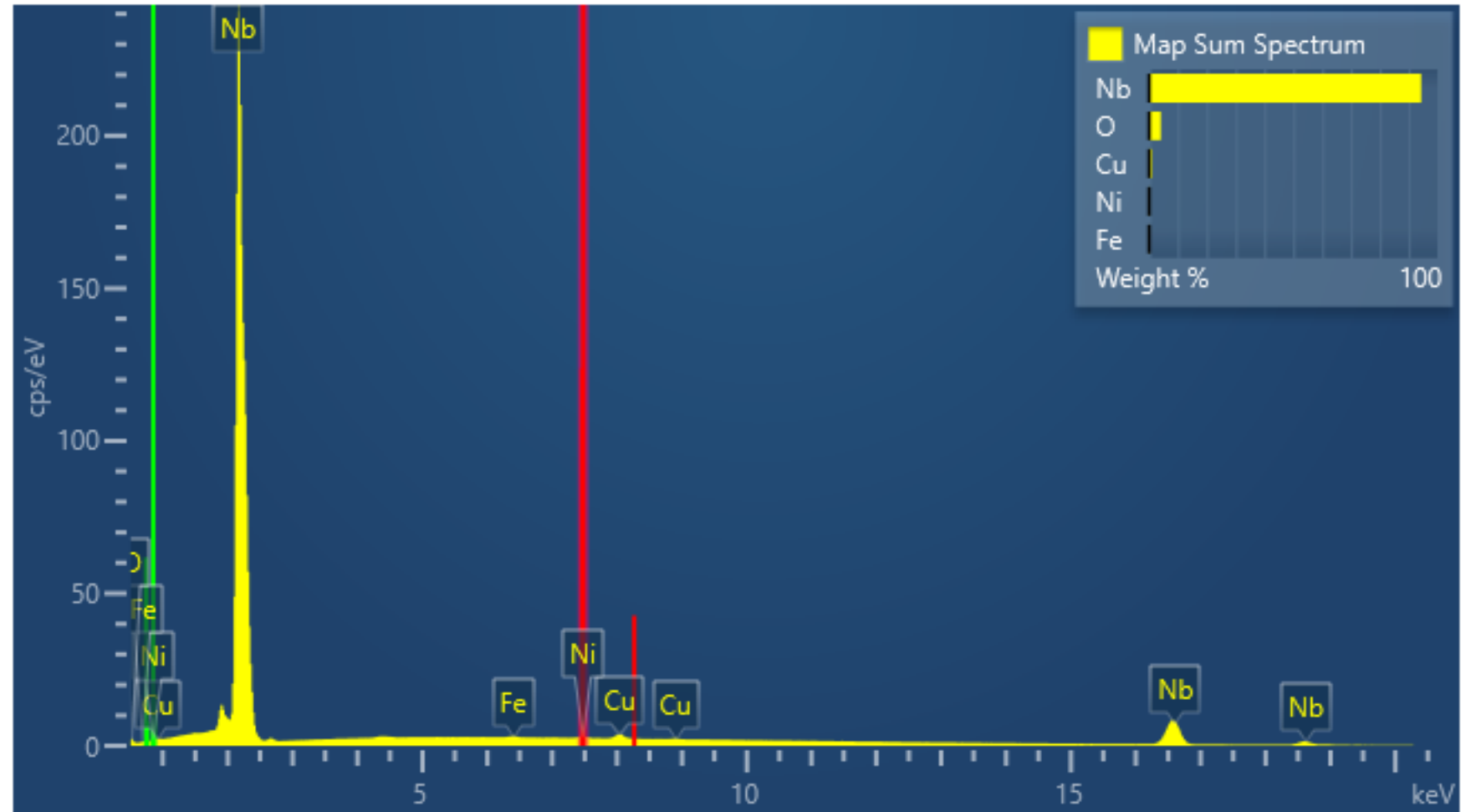
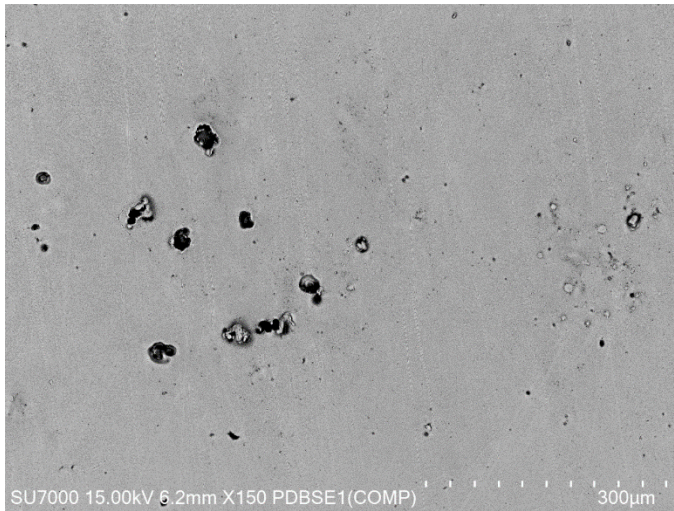


PDBSE(TOPO)



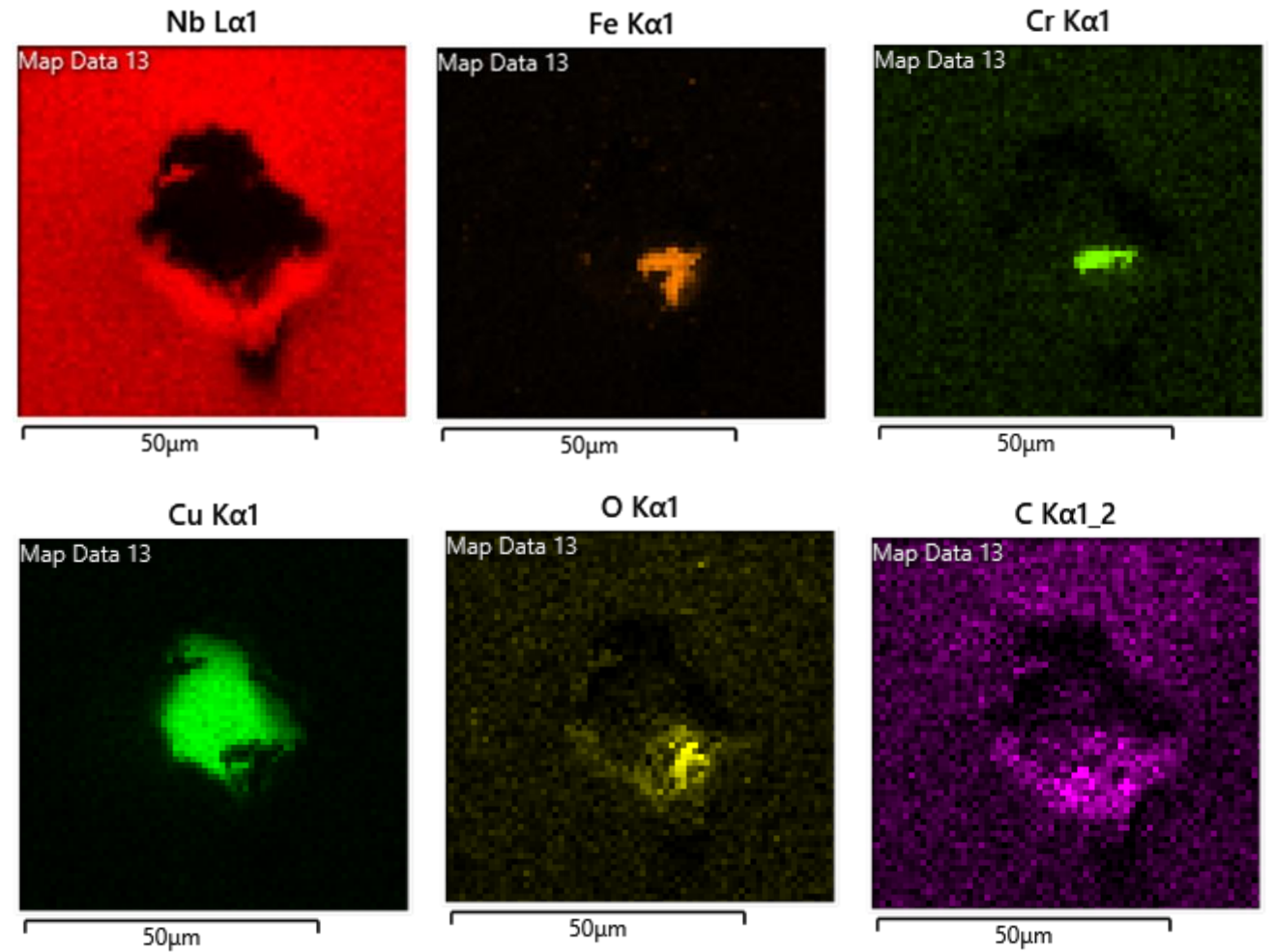
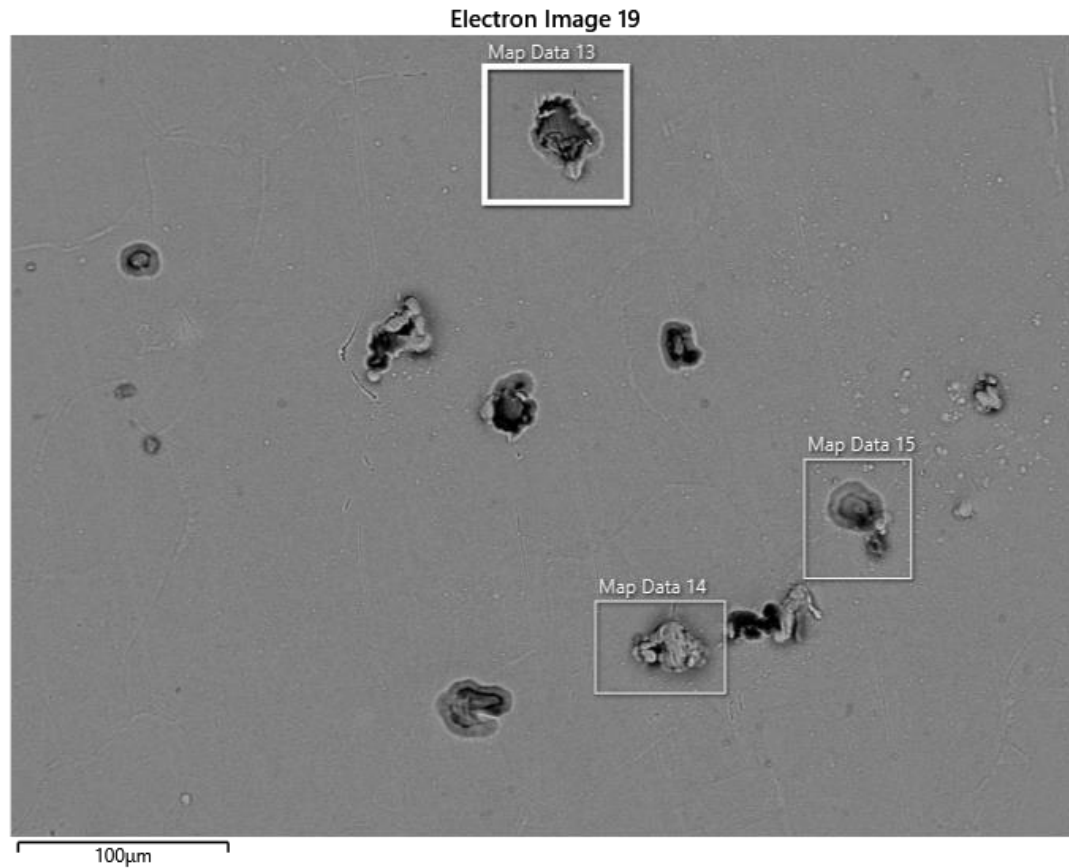
SE(LD)





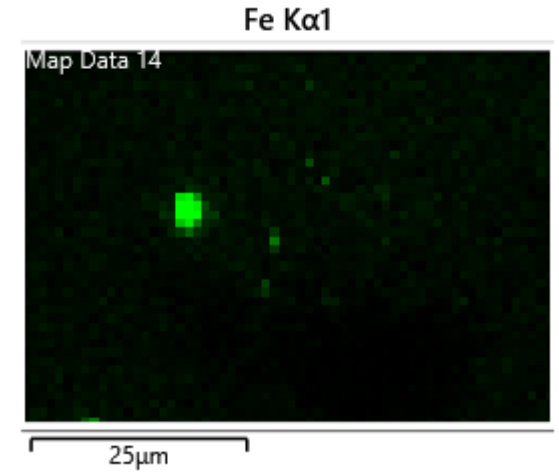
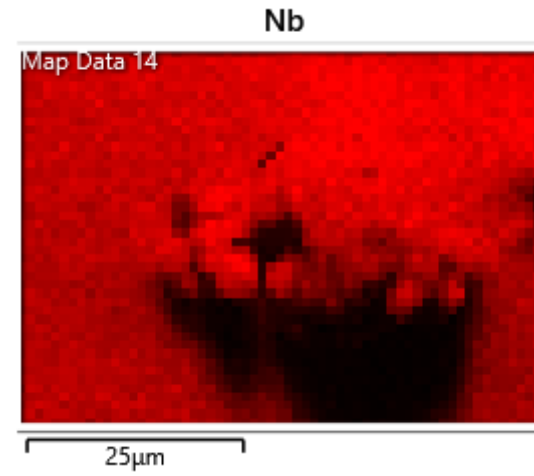
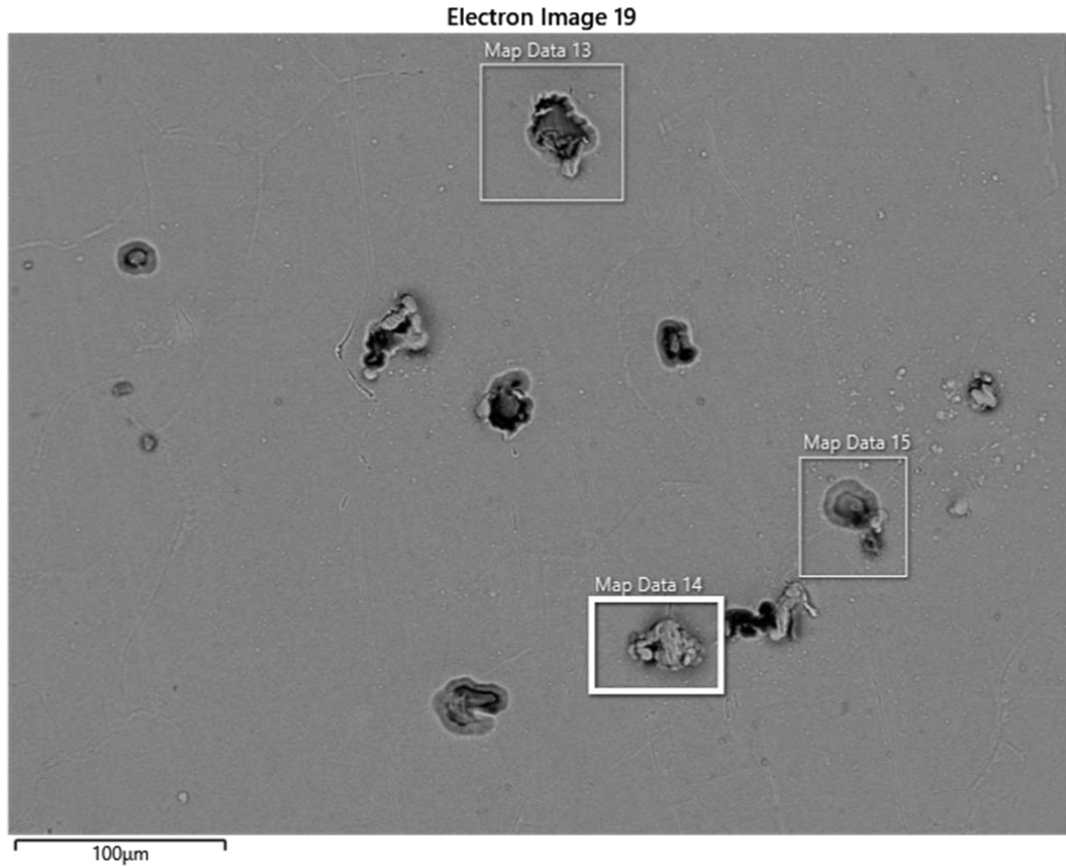
# Large Cu Metal Block

OXFORD EDX Mapping area13 30 kV



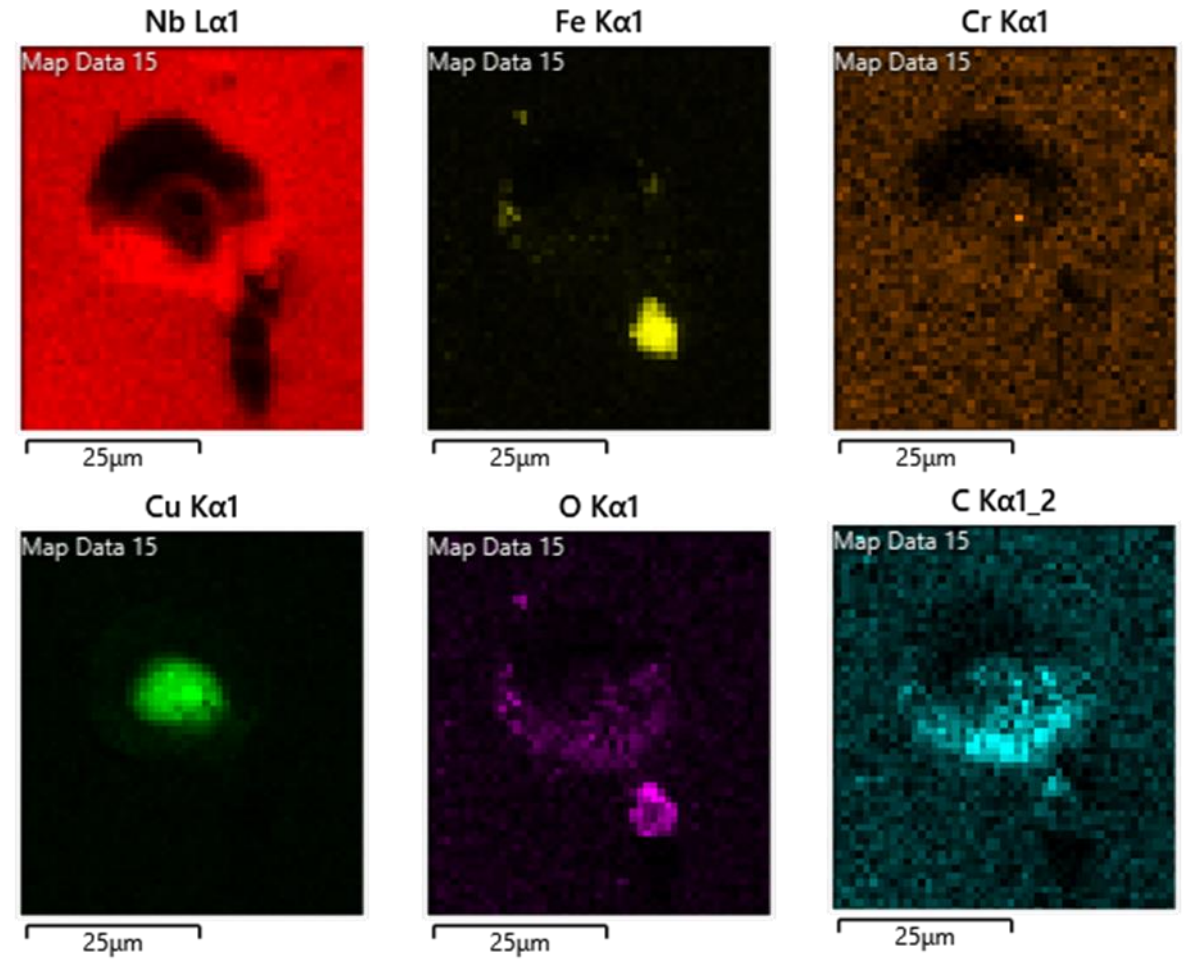
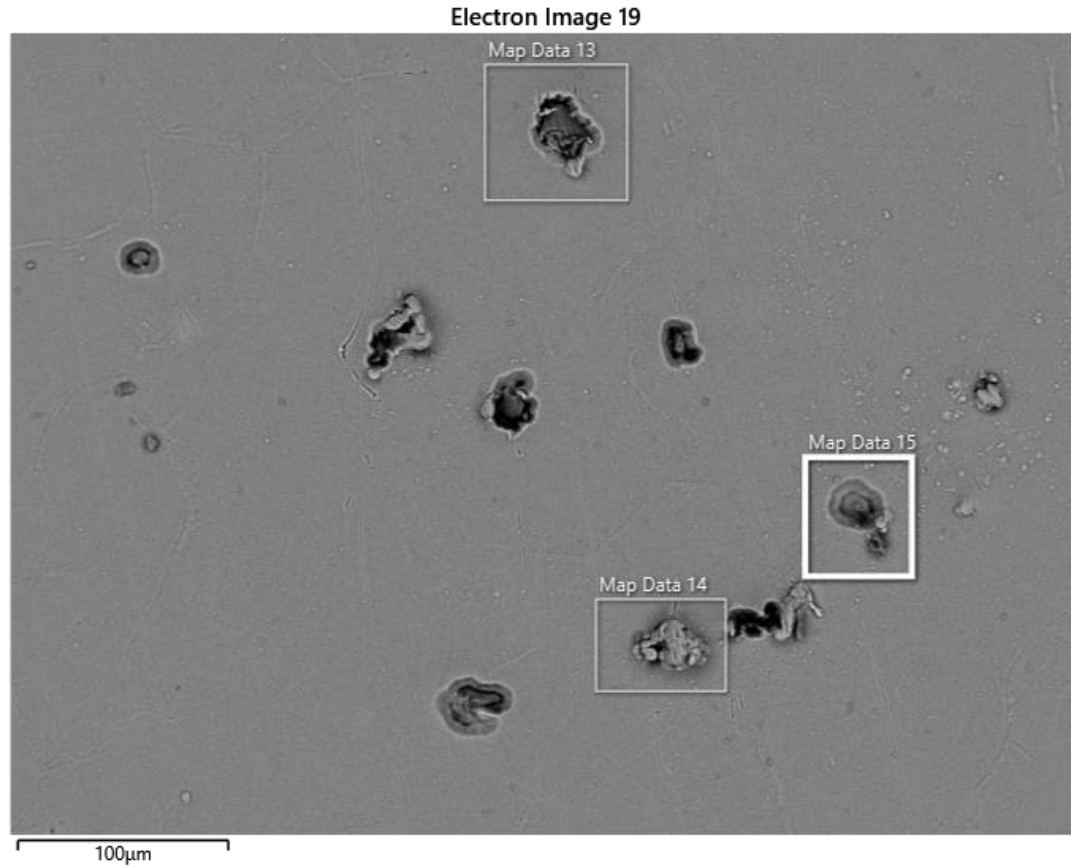
# Large Cu Metal Block

OXFORD EDX Mapping area15 30 kV



# Large Cu Metal Block

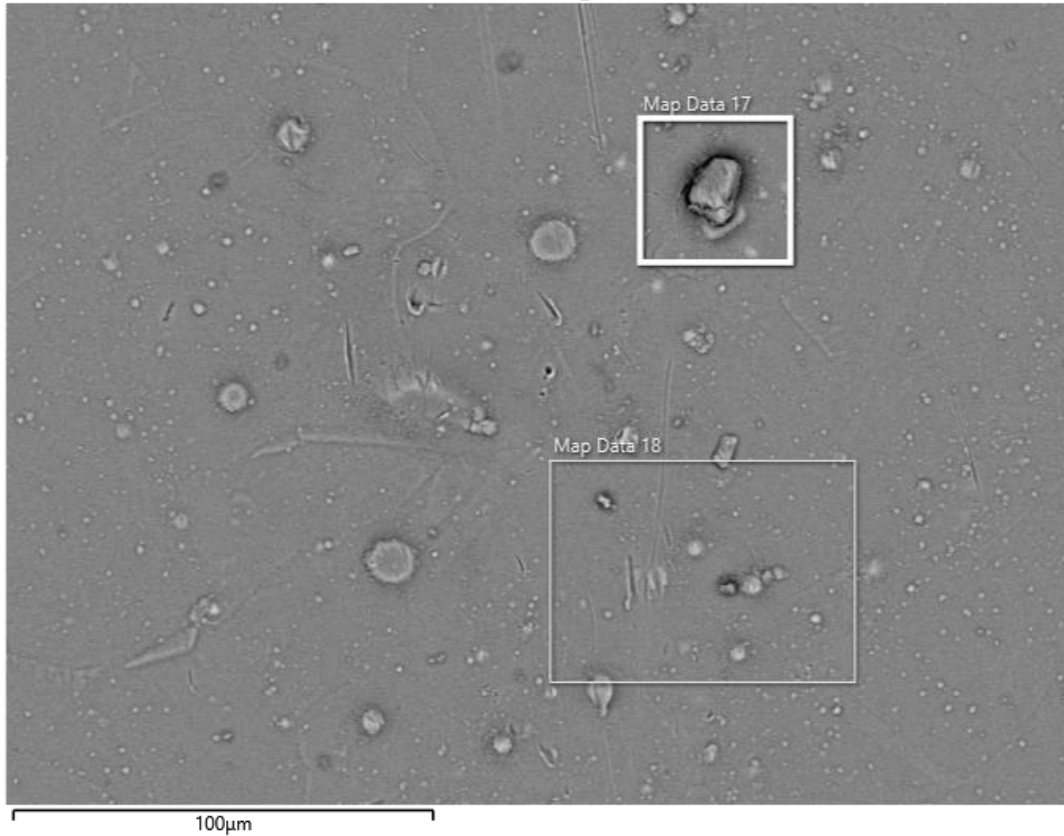
OXFORD EDX Mapping area15 30 kV



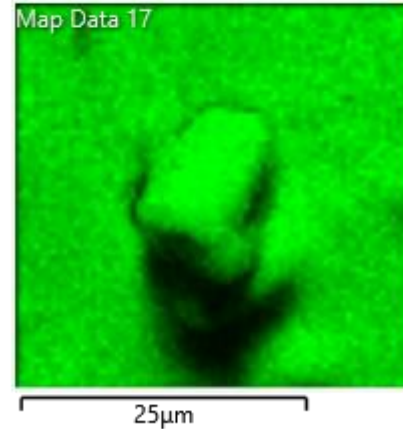
# Large Cu Metal Block

OXFORD EDX Mapping area17 30 kV

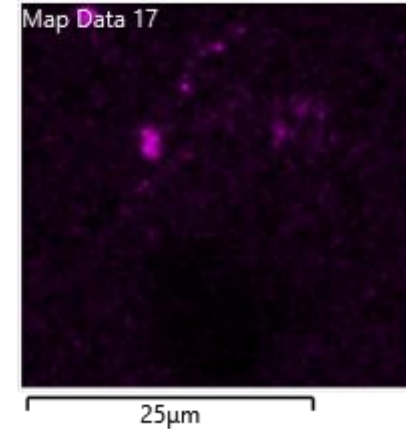
Electron Image 21



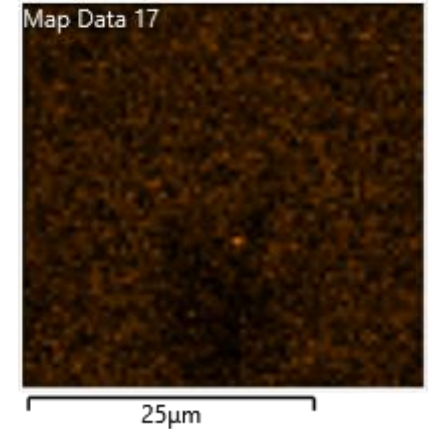
Nb L $\alpha$ 1



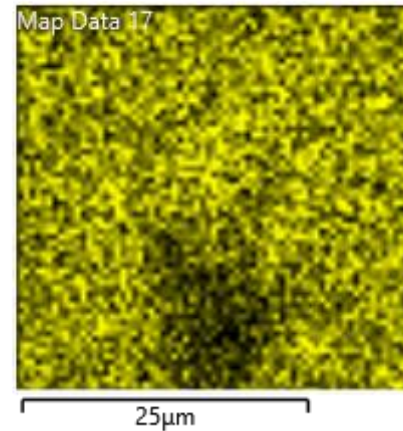
Fe K $\alpha$ 1



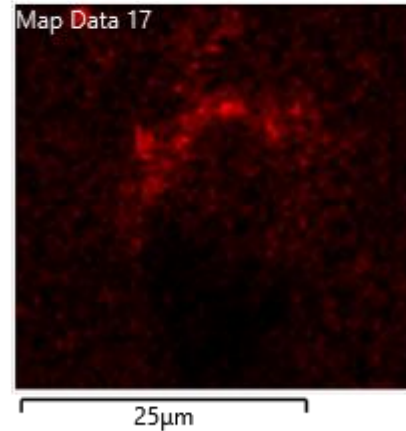
Cu K $\alpha$ 1



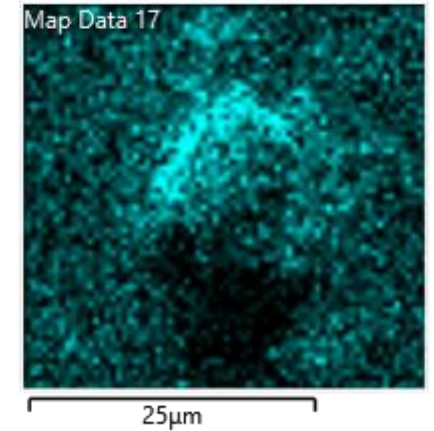
Ni K $\alpha$ 1



O K $\alpha$ 1



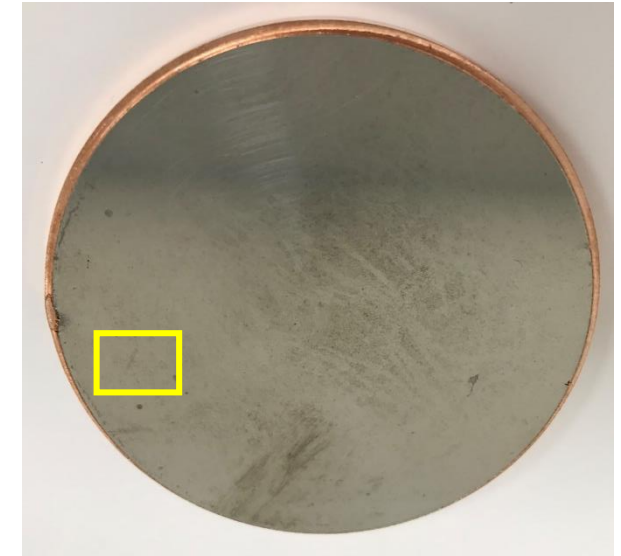
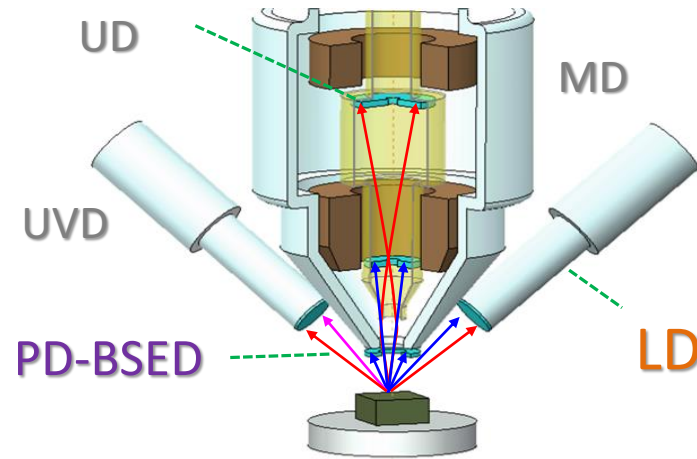
C K $\alpha$ 1\_2



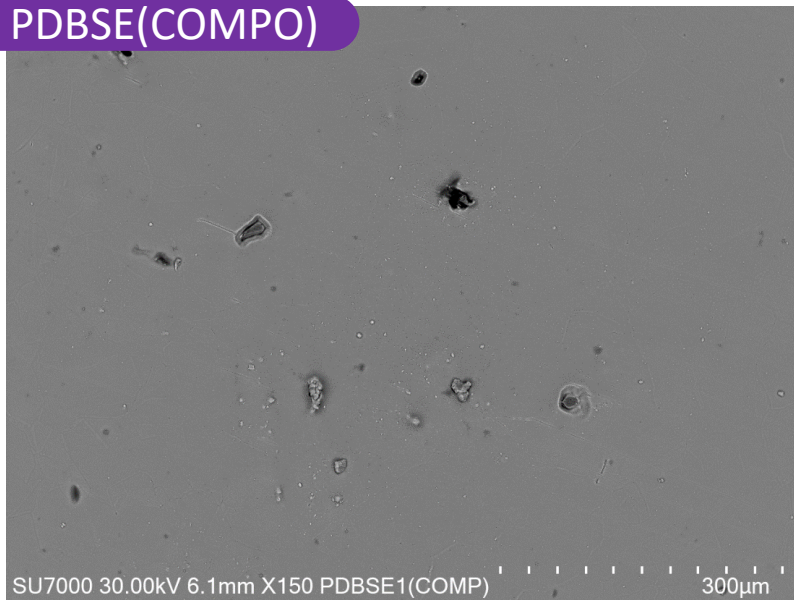


# Large Cu Metal Block

Accelerating Voltage : 30 kV



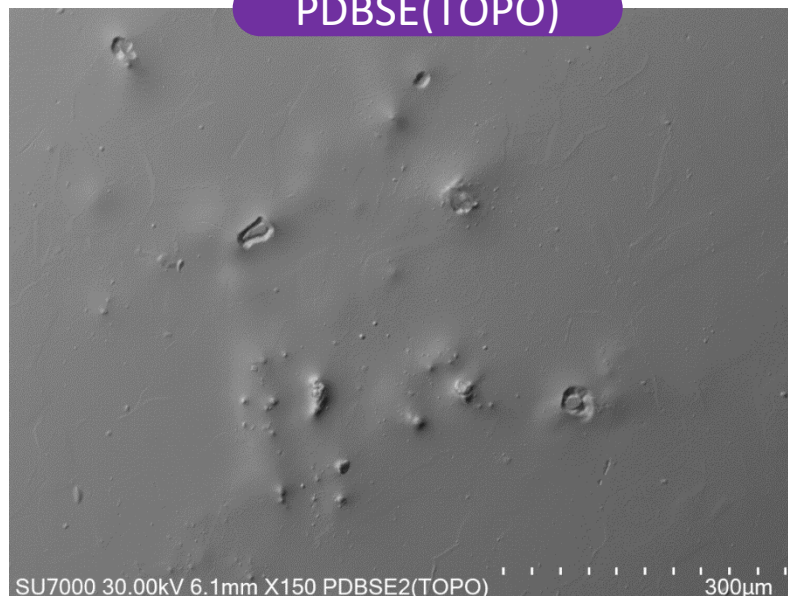
PDBSE(COMPO)



SU7000 30.00kV 6.1mm X150 PDBSE1(COMP)

300μm

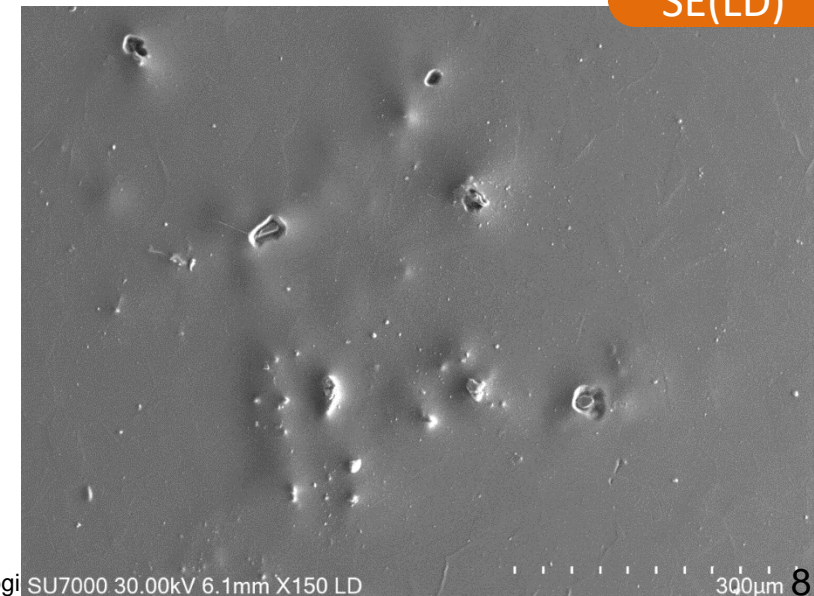
PDBSE(TOPO)



SU7000 30.00kV 6.1mm X150 PDBSE2(TOPO)

300μm

SE(LD)

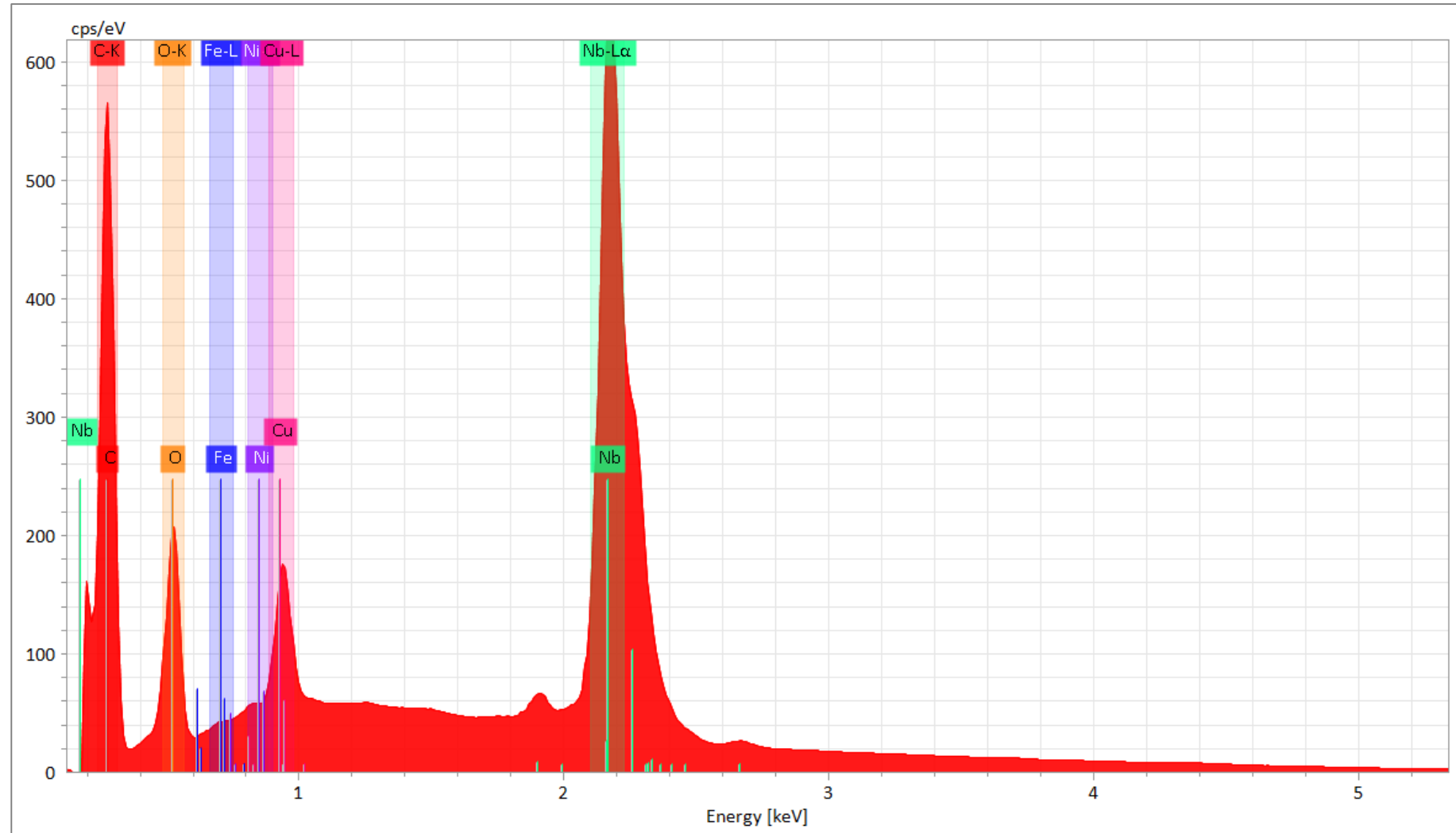
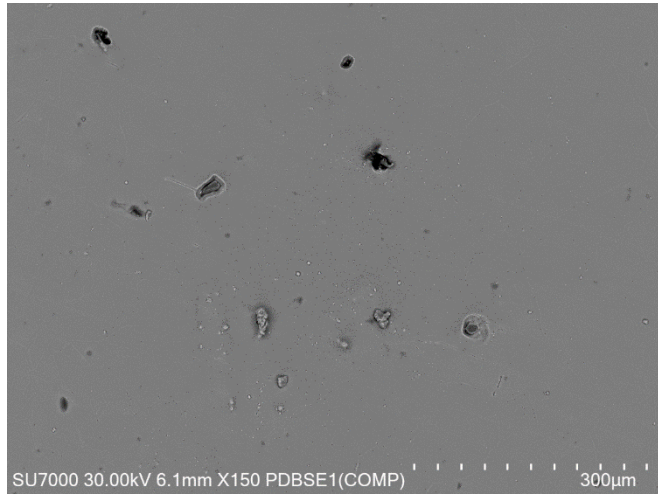


SU7000 30.00kV 6.1mm X150 LD

300μm

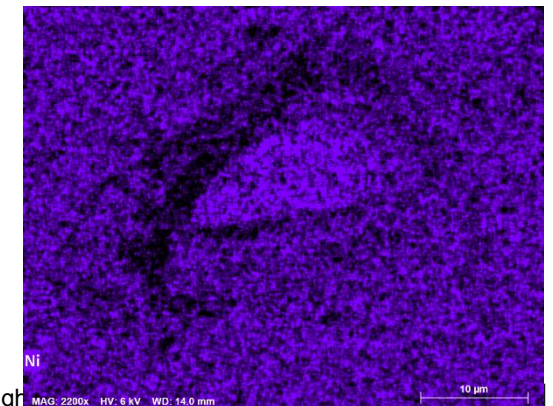
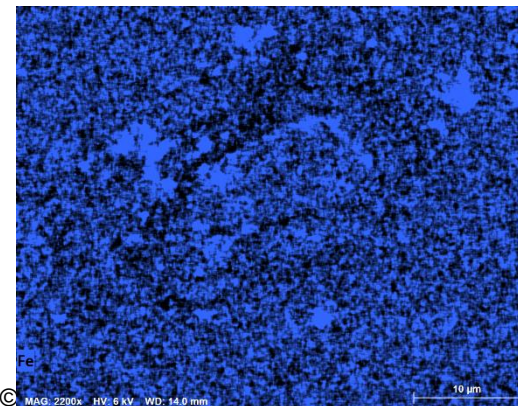
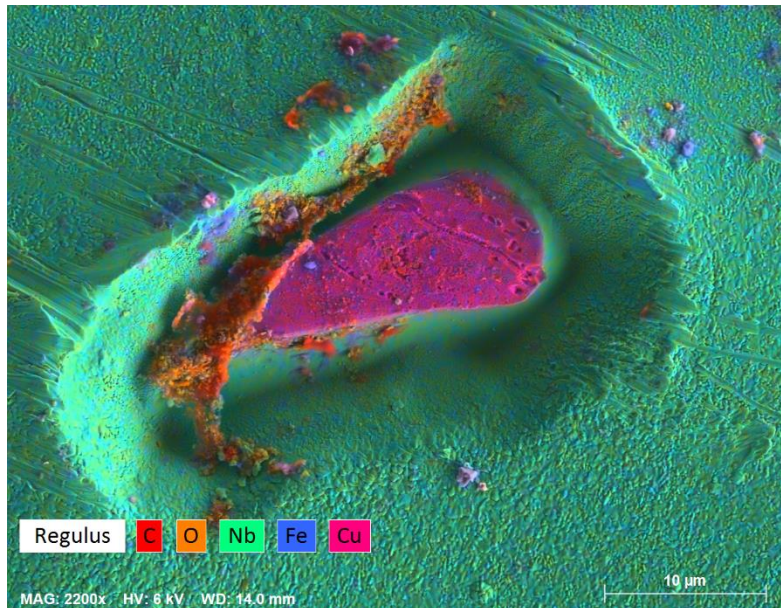
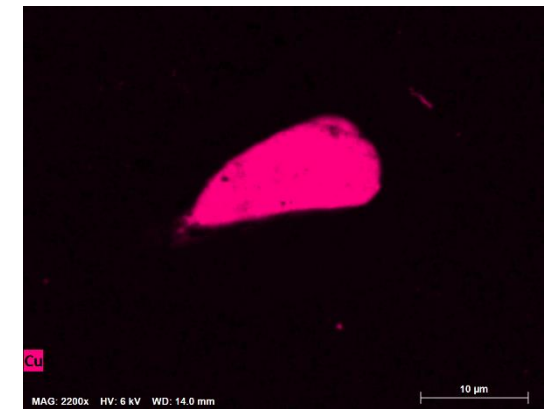
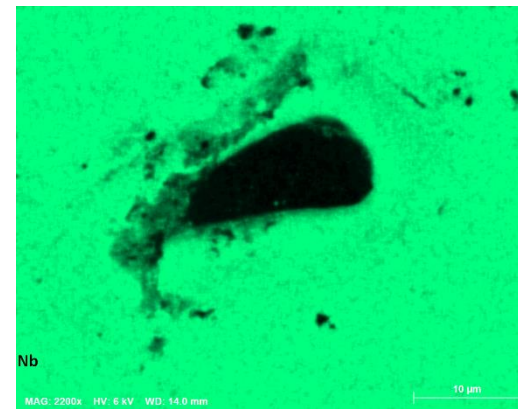
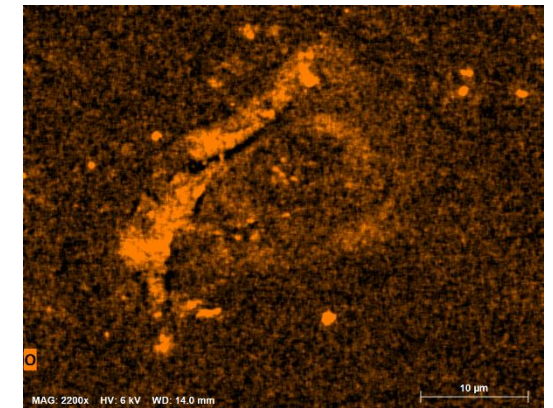
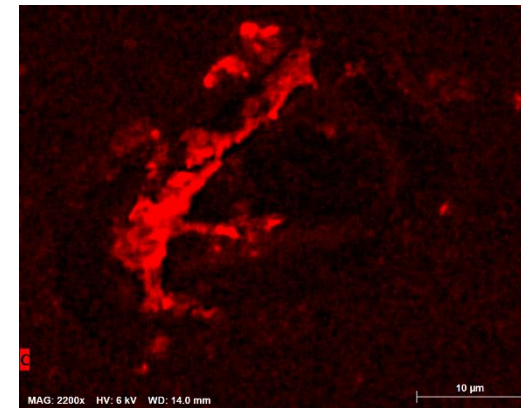
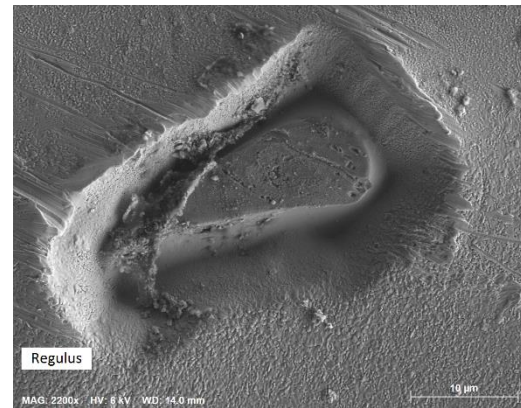
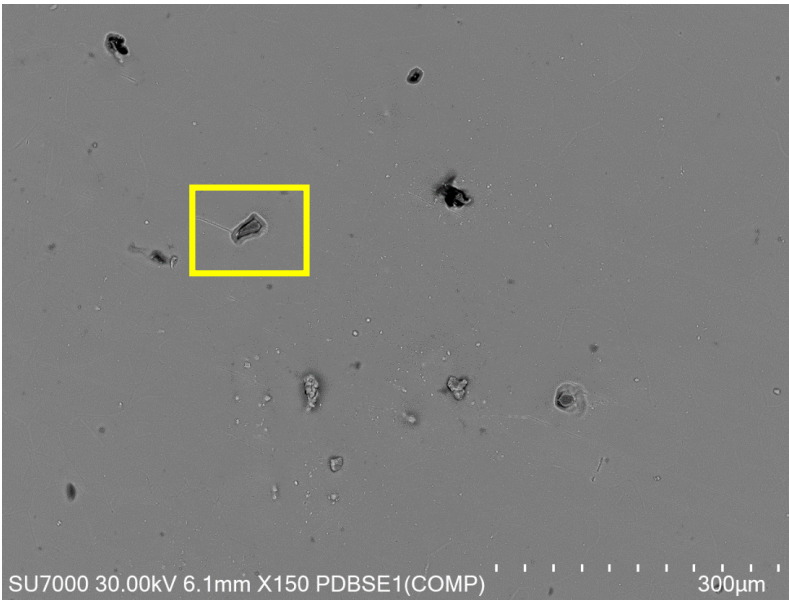
# Large Cu Metal Block

Bruker FQ EDX Mapping spectrum 6 kV



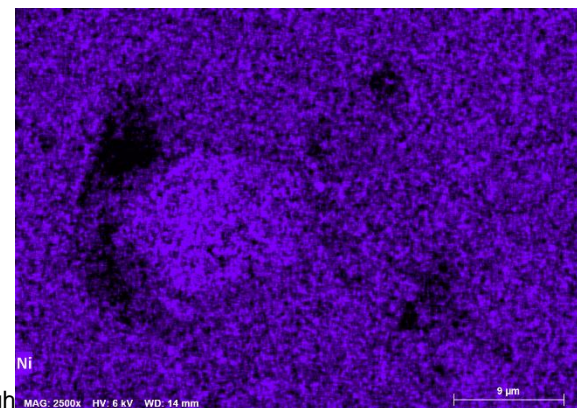
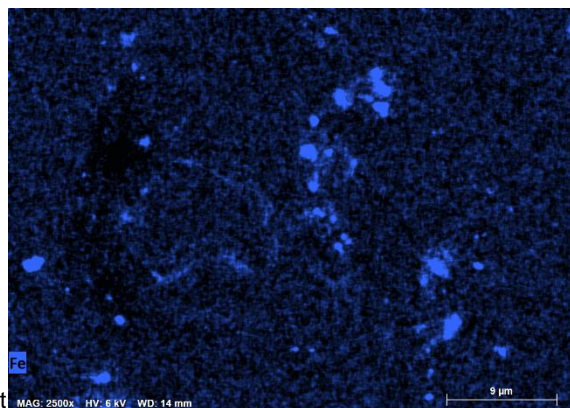
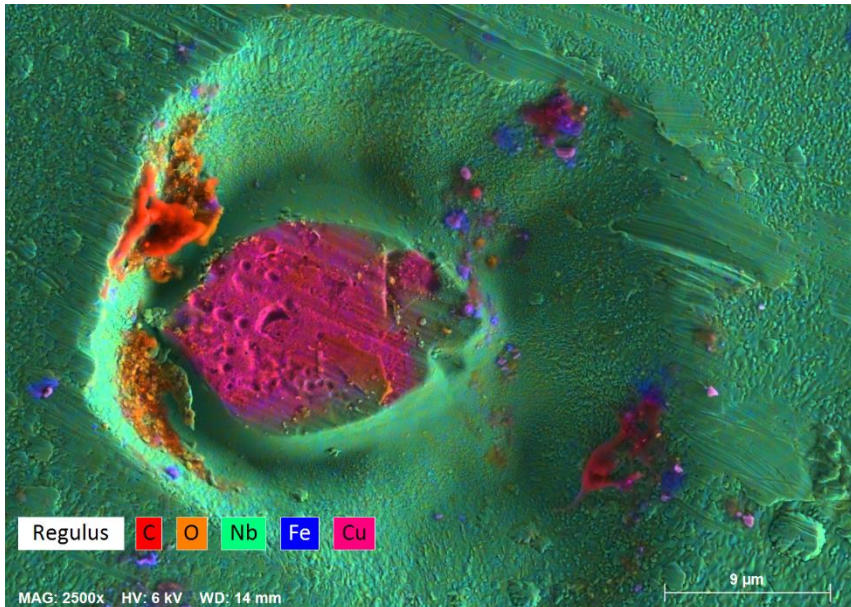
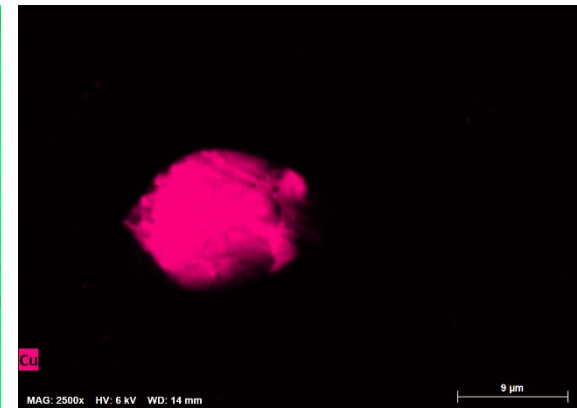
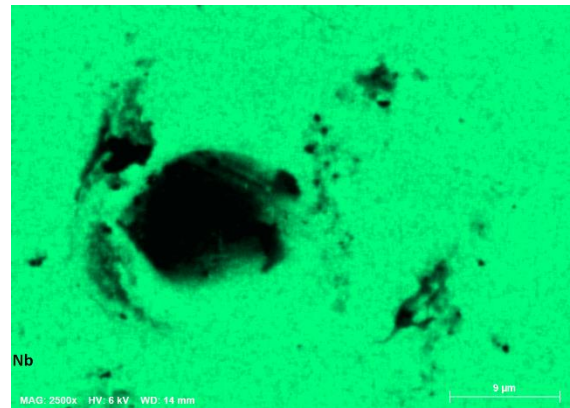
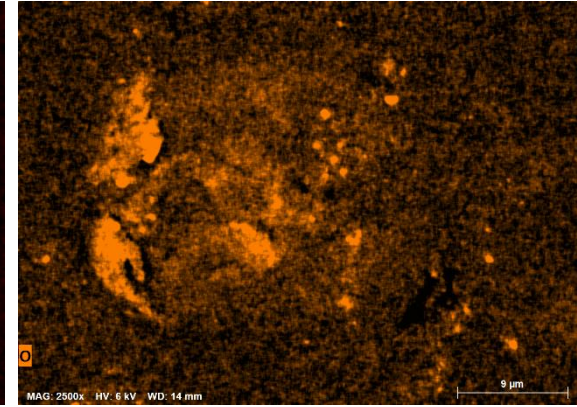
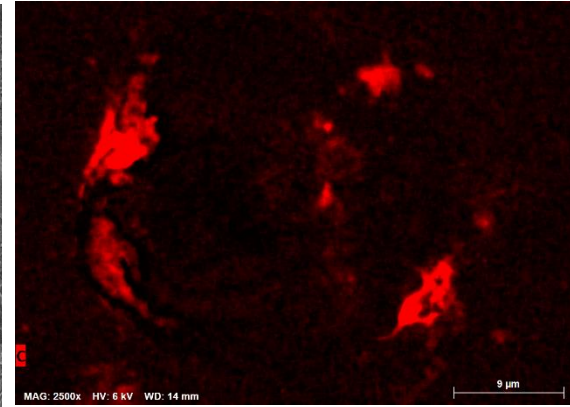
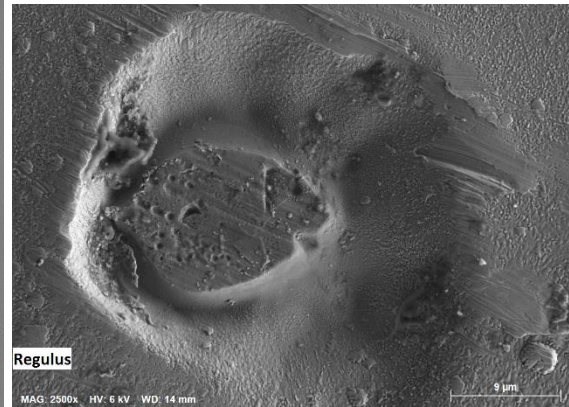
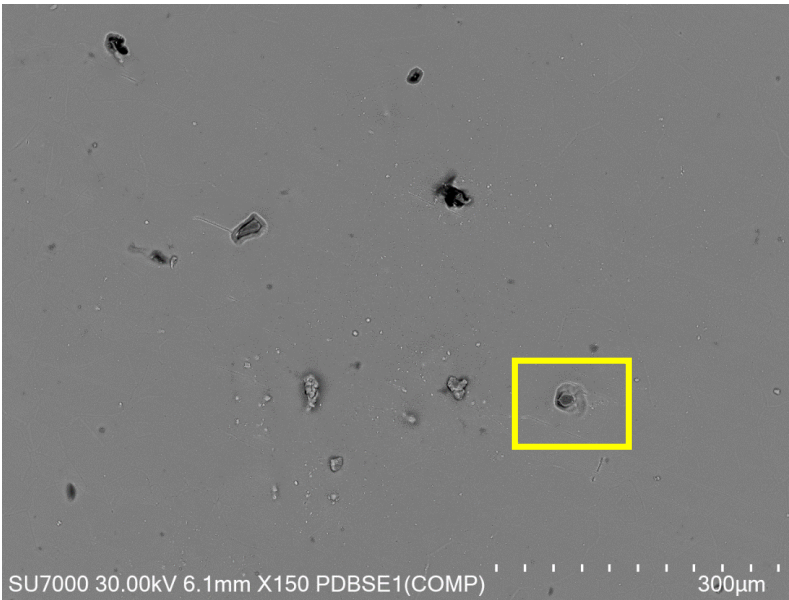
# Large Cu Metal Block

Bruker FQ EDX Mapping 6 kV



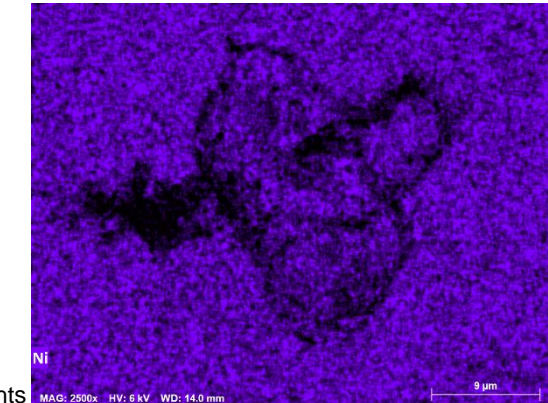
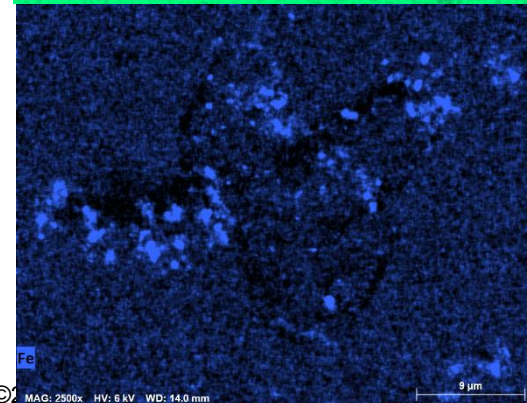
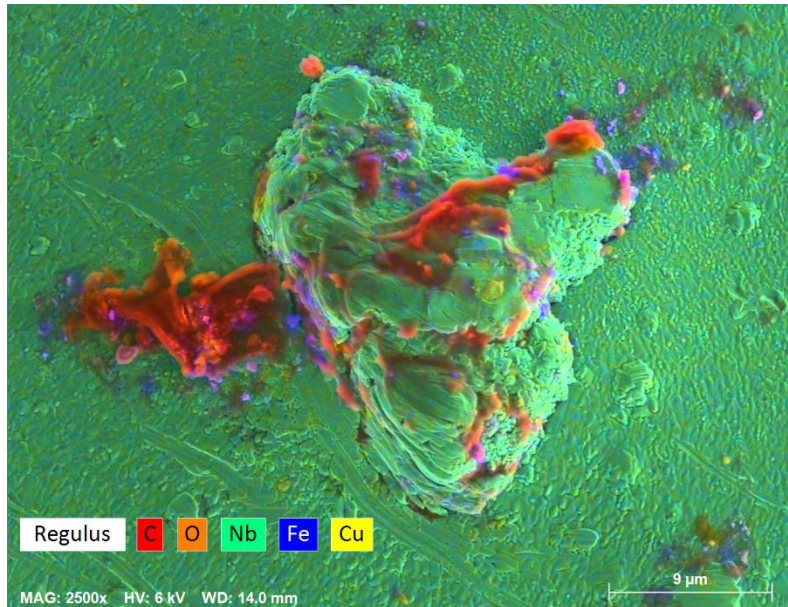
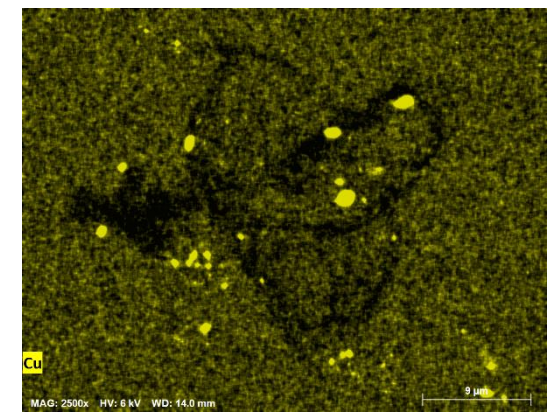
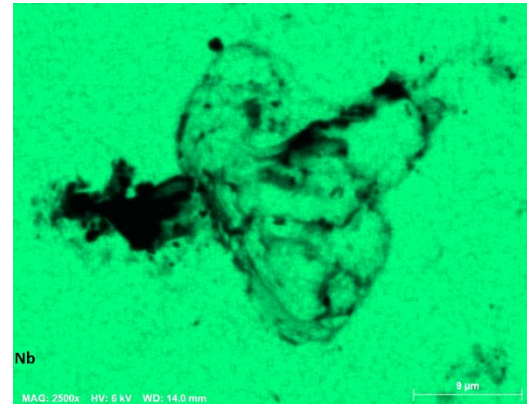
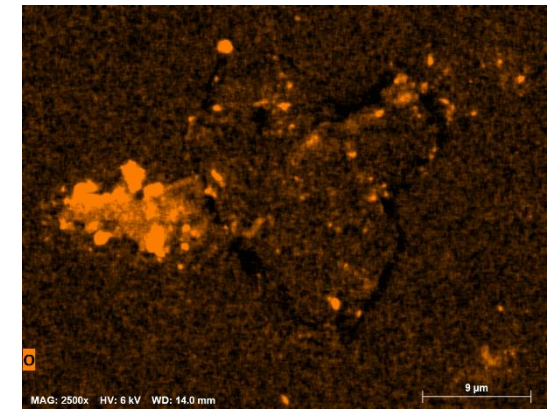
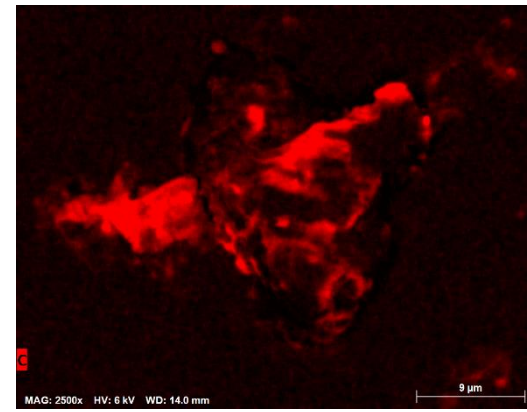
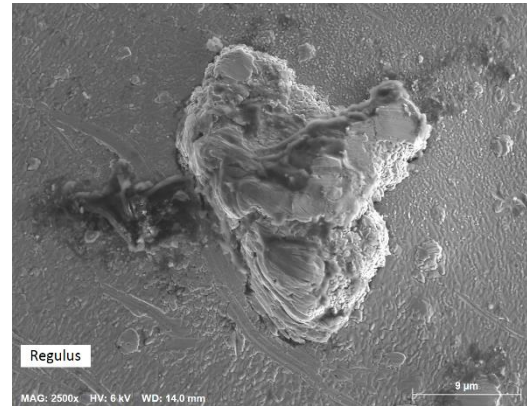
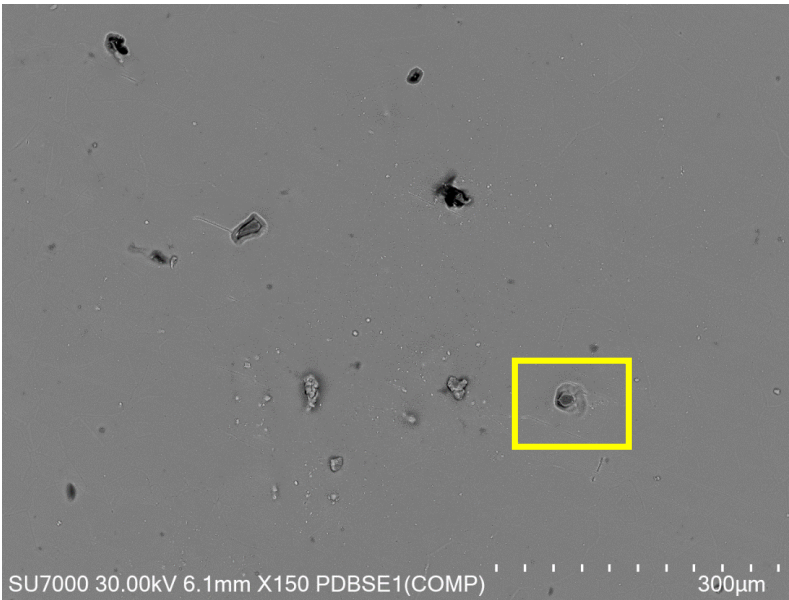
# Large Cu Metal Block

Bruker FQ EDX Mapping 6 kV



# Large Cu Metal Block

Bruker FQ EDX Mapping 6 kV





# SU7000

Demo report

End

December 2019

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Hitachi High-Technologies Europe GmbH, UK

