

B22 - FRAGMENT OF A XIII C. CROSS



B22.1

Identification

Sample: B22

Card reference: S91

Origin/Location: Limoges

Description

Large grains containing many inclusions. The inclusions are oriented in the direction of working, but the grains are recrystallized due to heat treatment.

Figure captions

B22.1

General view; two pieces of copper joined by solder (central lighter area). The copper parts contain many inclusions, which are elongated in the direction of work (undertaken to obtain a sheet of metal). The solder contains large voids.

B22.2

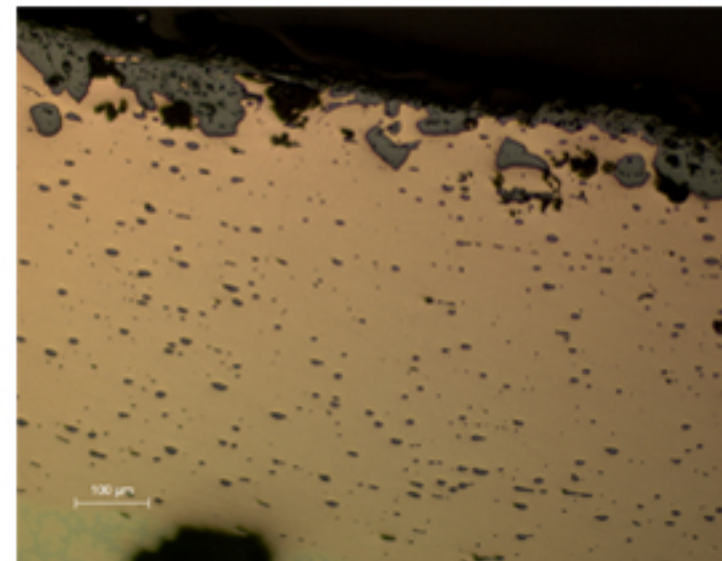
Detail from near the surface showing the penetration of corrosion.

B22.3

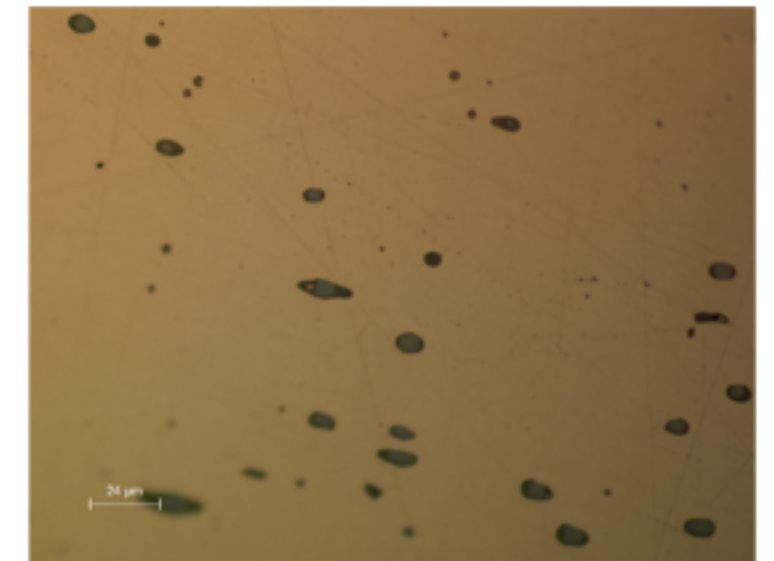
Detail showing inclusions containing many phases, which are constituted by different elements: As, Sb and Pb.

B22.4

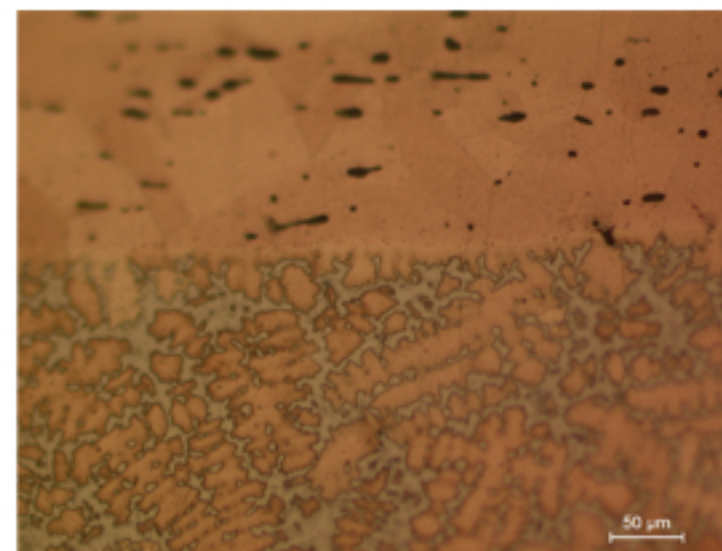
Detail of the join between the copper part (top) and the solder (bottom). Large recrystallized copper grains and cored dendrites (Cu+Sn) in the solder are visible (etchant: aqueous FeCl_3).



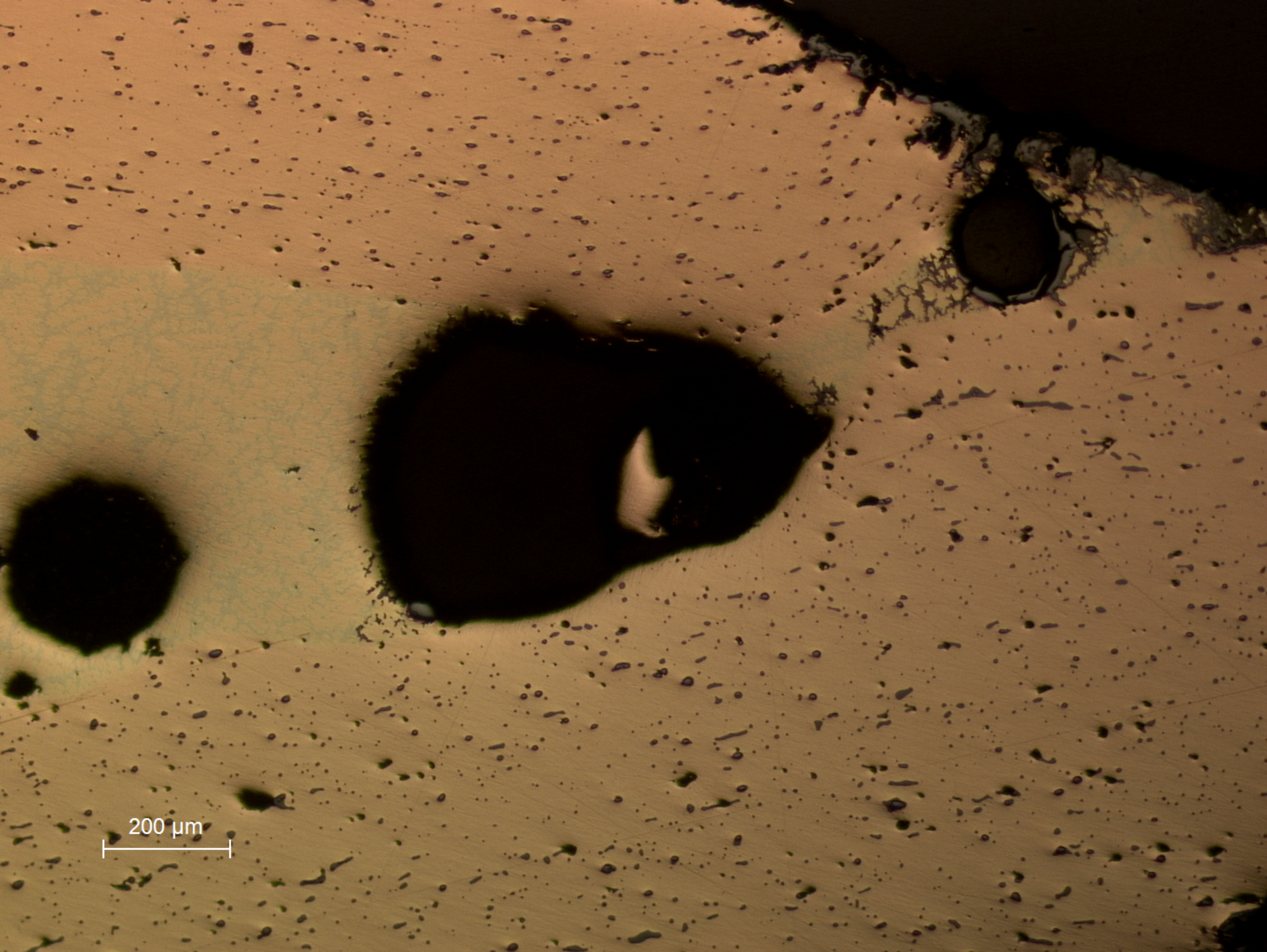
B22.2



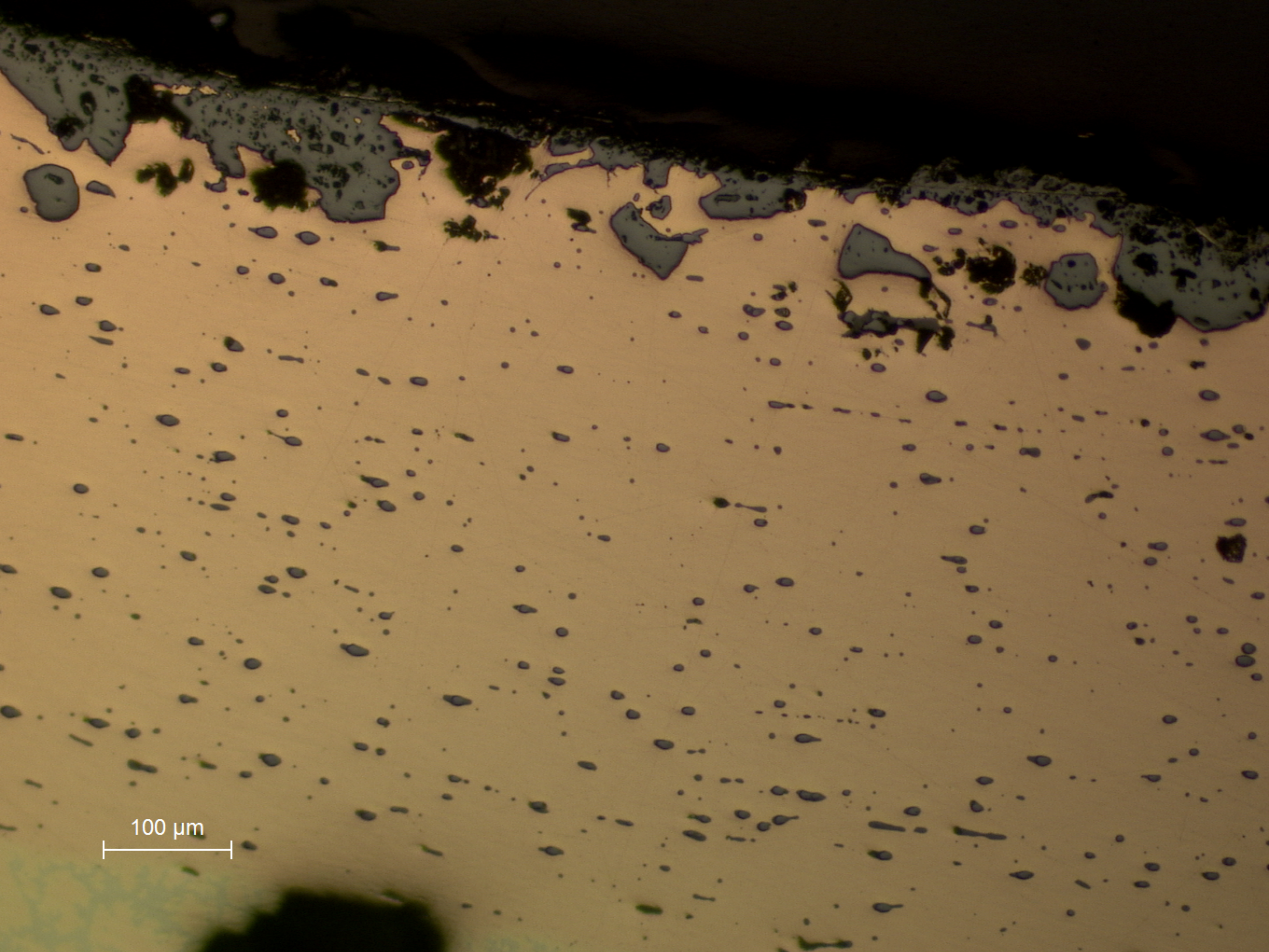
B22.3



B22.4



B22.1
General view; two pieces of copper joined by solder (central lighter area). The copper parts contain many inclusions, which are elongated in the direction of work (undertaken to obtain a sheet of metal). The solder contains large voids.

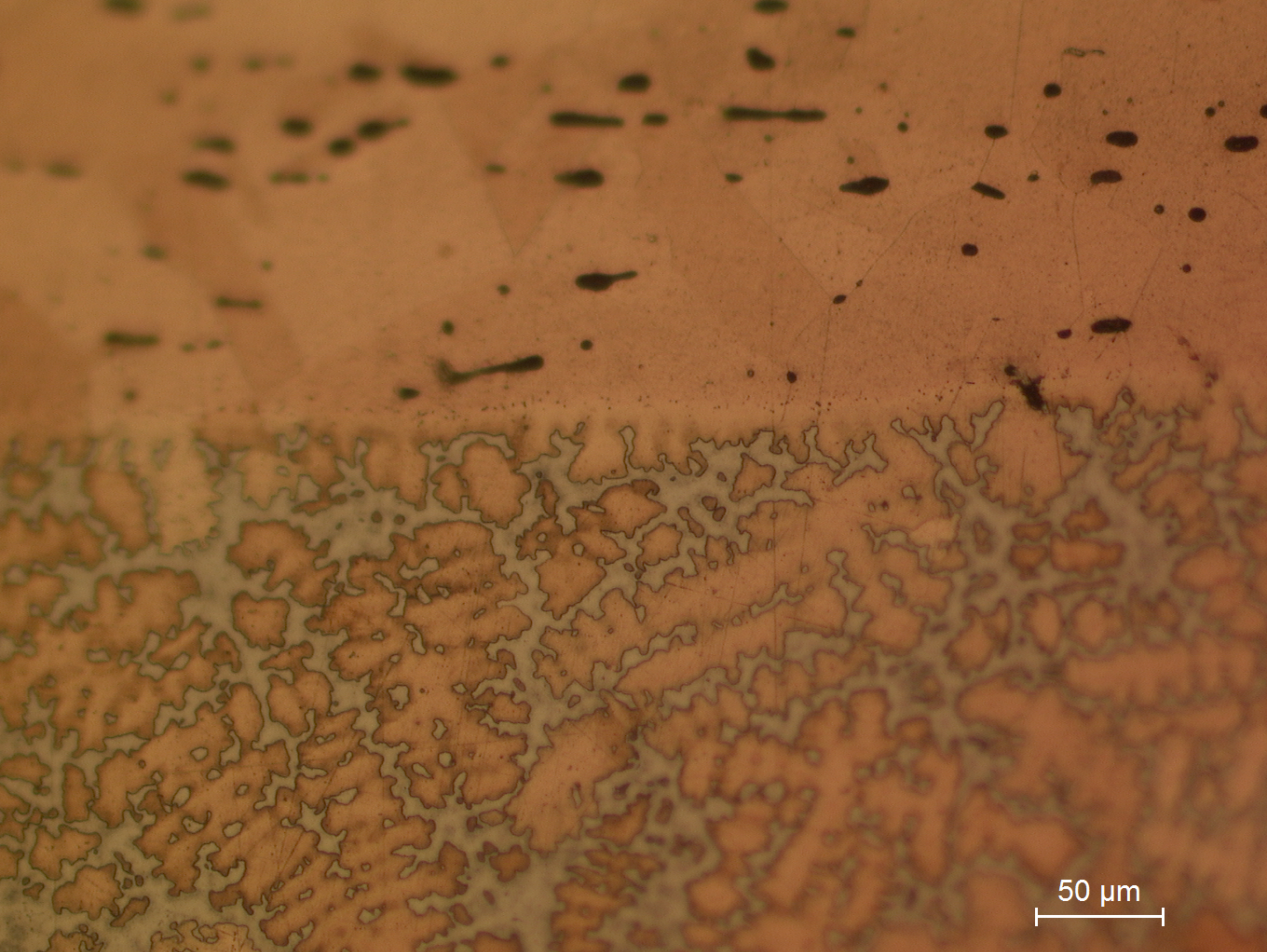


100 μm

B22.2
Detail from near the surface showing the penetration of corrosion.



B22.3
Detail showing inclusions containing many phases, which are constituted by different elements: As, Sb and Pb.



B22.4
Detail of the join between the copper part (top) and the solder (bottom). Large recrystallized copper grains and cored dendrites (Cu+Sn) in the solder are visible (etchant: aqueous FeCl_3).