

Final SH # 1 (boiler front side)

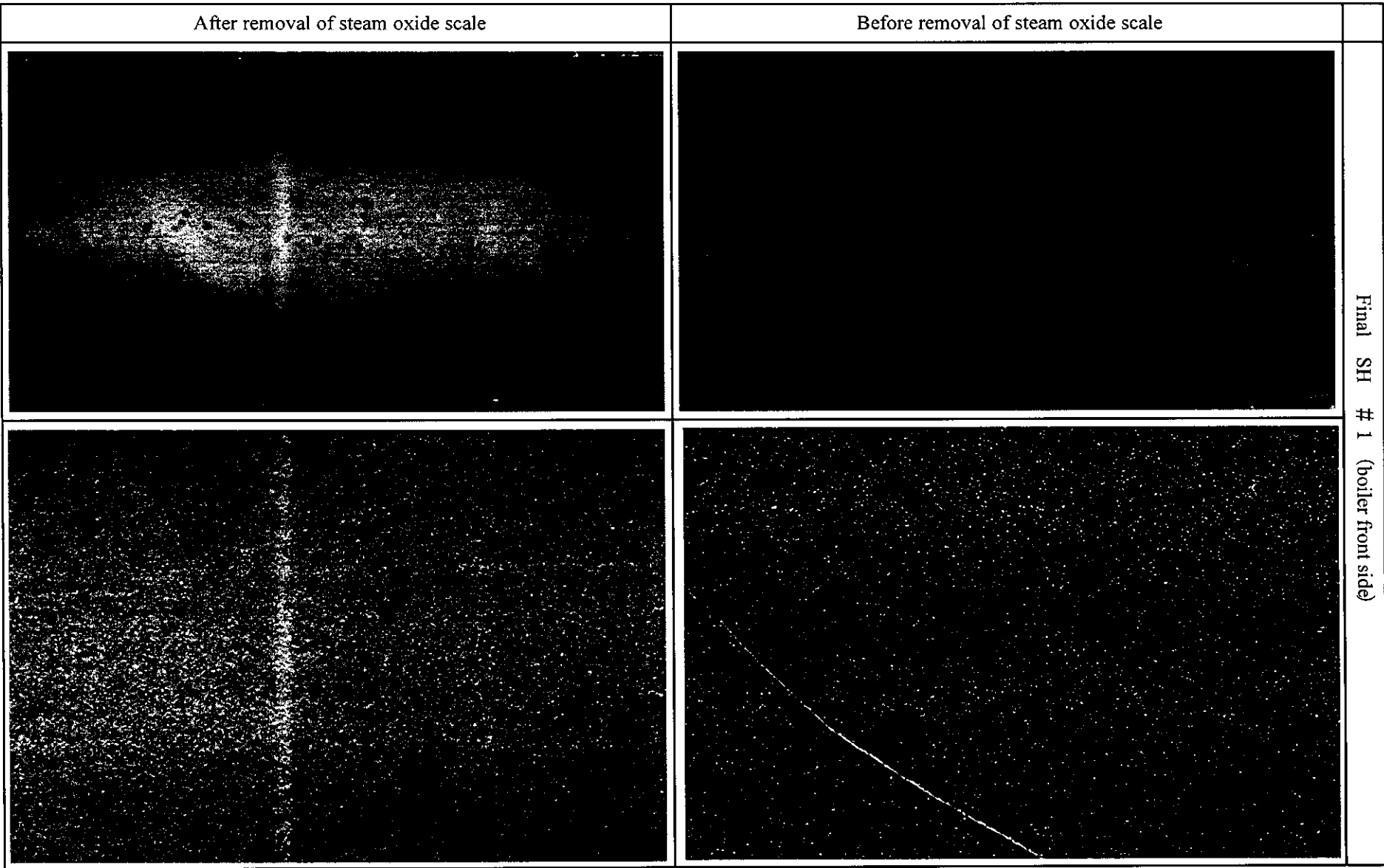
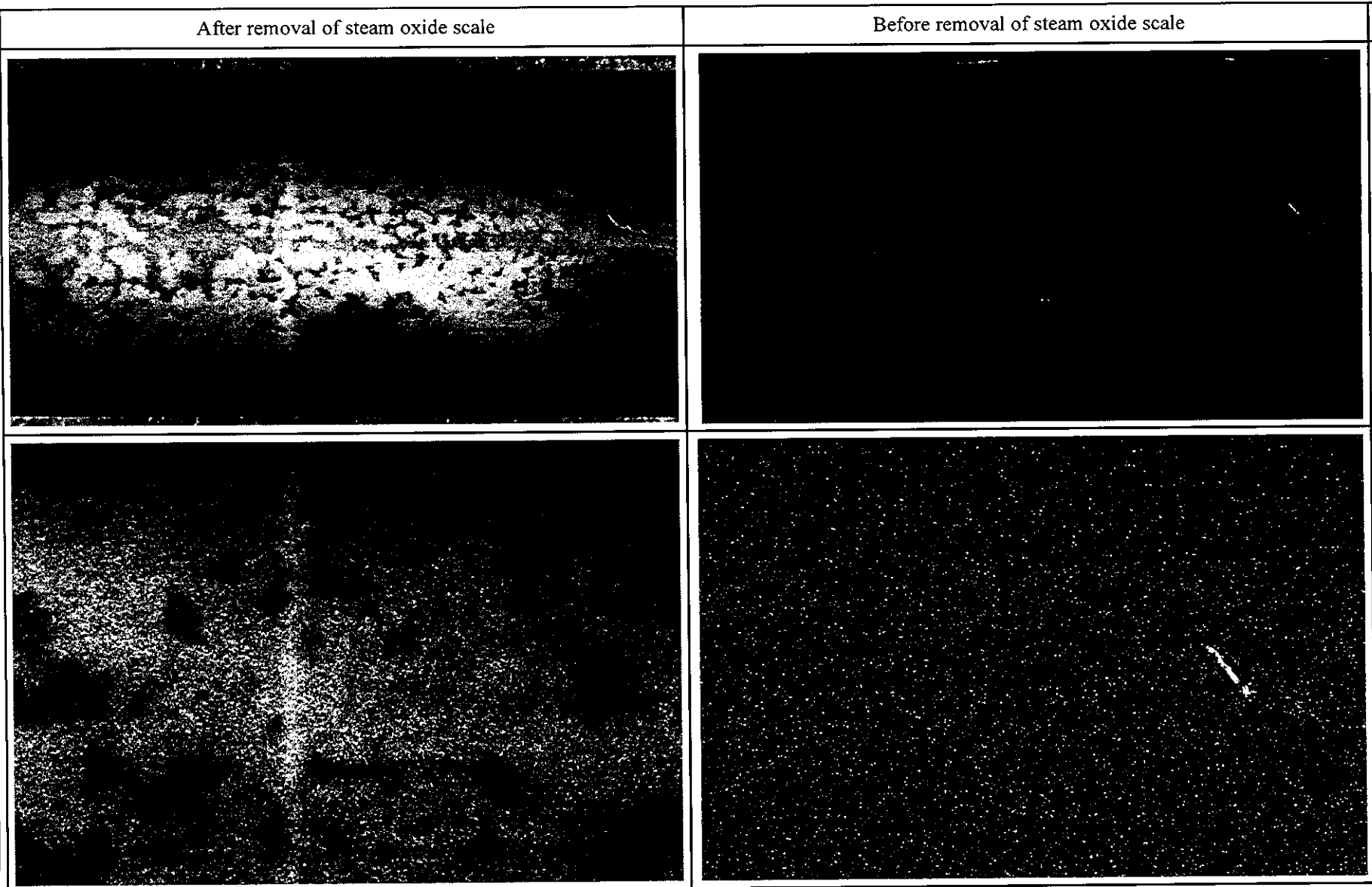


Photo II -17 Tube appearance from inside before and after removal of steam oxide scale  
(Final SH#1 tube- boiler front side)

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Final SH # 1 (boiler rear side)



After removal of steam oxide scale

Before removal of steam oxide scale

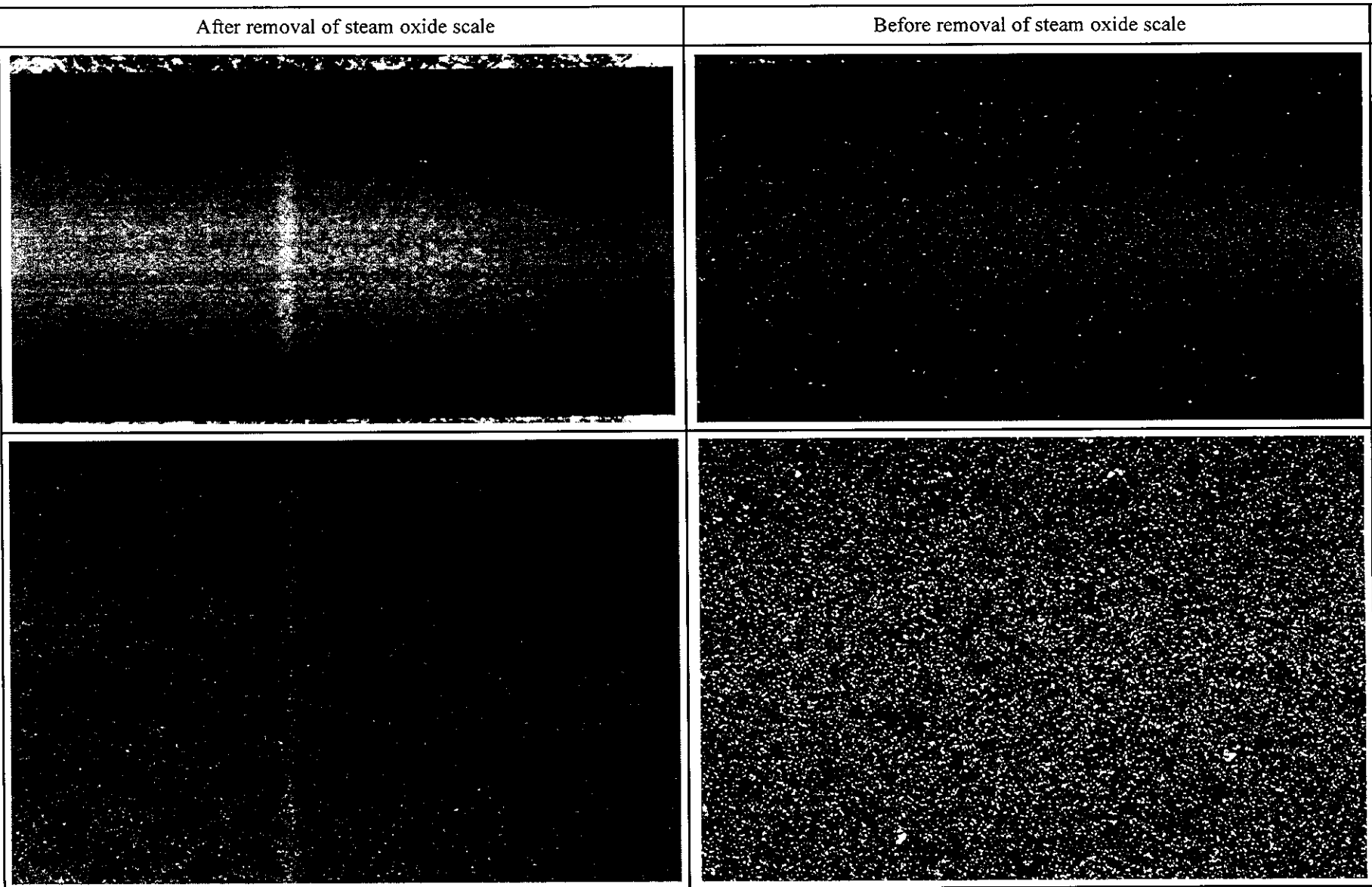
5mm

1mm

Photo II - 18 Tube appearance from inside before and after removal of steam oxide scale (Final SH#1 tube- boiler rear side)

518

Final SH # 1 1 9 (boiler front side)



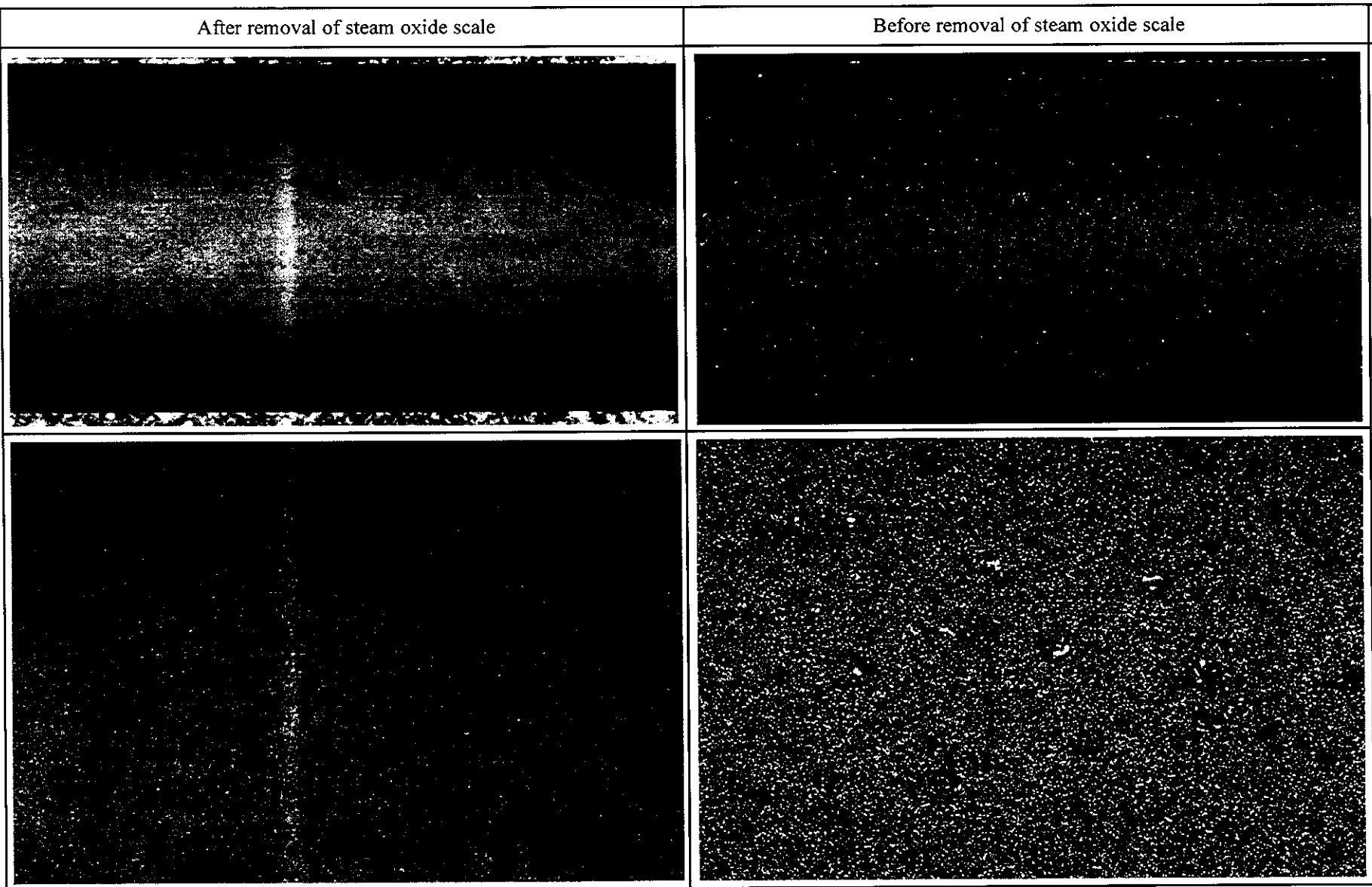
5mm

1mm

Photo II -19 Tube appearance from inside before and after removal of steam oxide scale (Final SH#119 tube- boiler front side)

55

Final SH # 1 1 9 (boiler rear side)



515

Photo II -20 Tube appearance from inside before and after removal of steam oxide scale.  
(Final SH# 1 1 9 tube- boiler rear side)

615

Unchahar

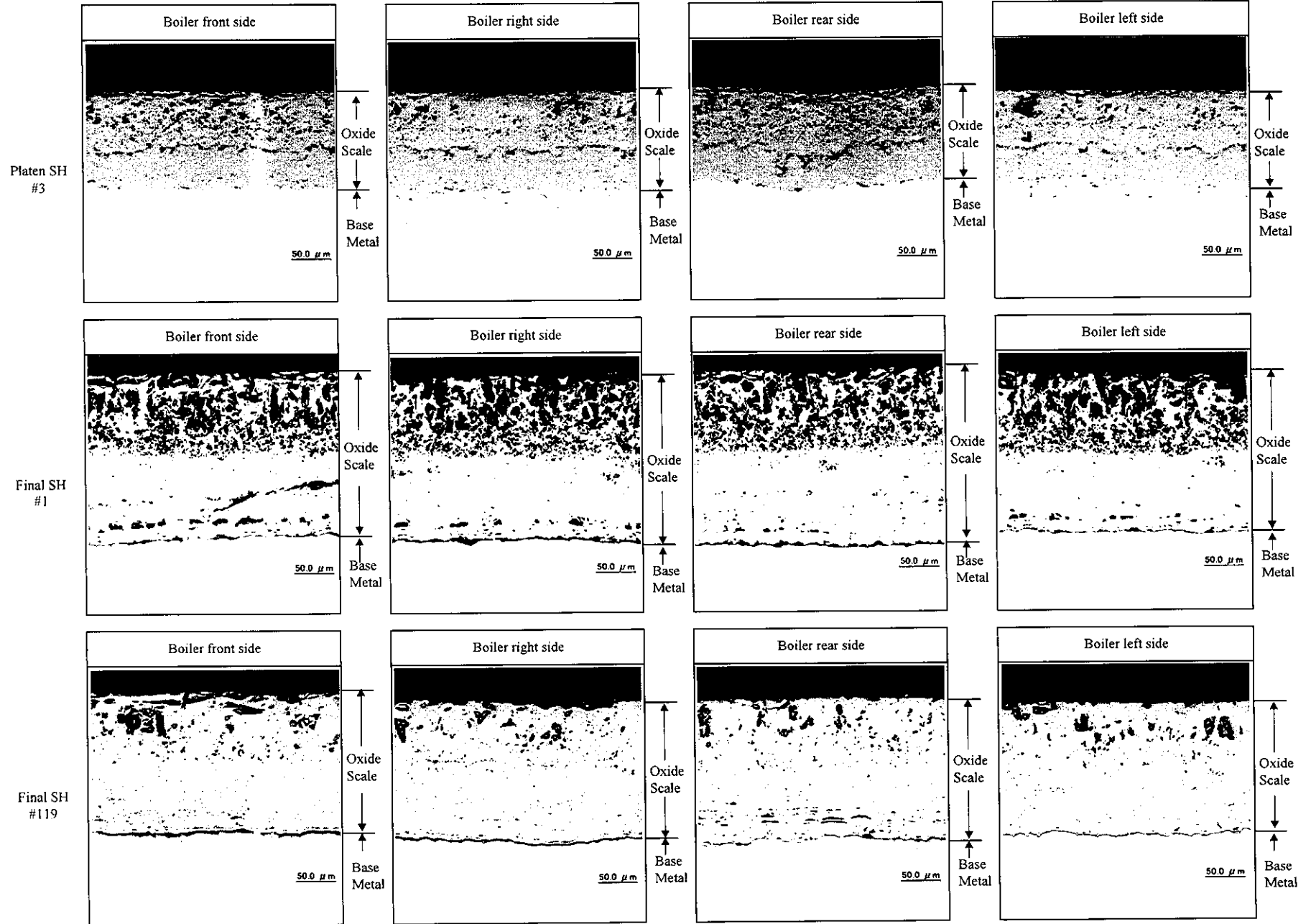
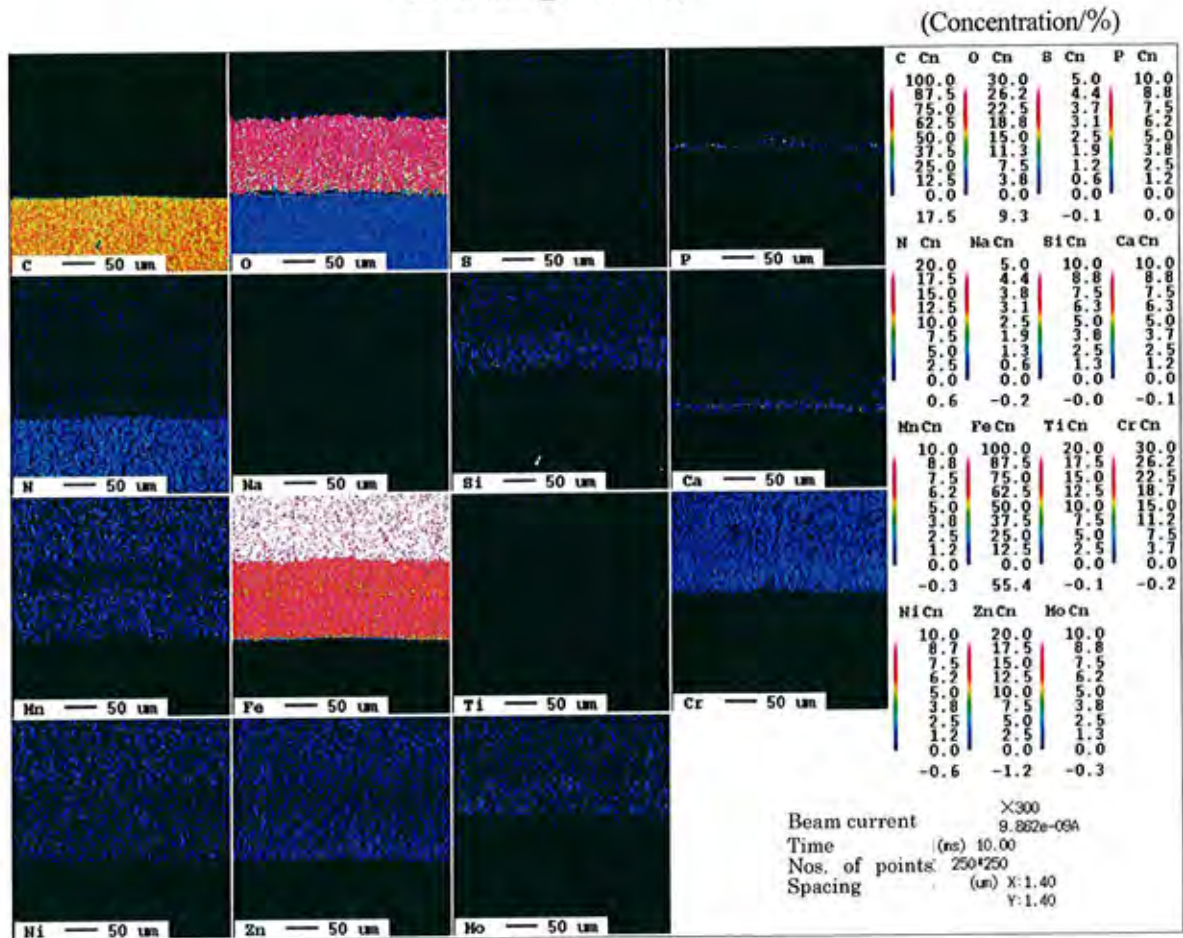


Photo II-21 Cross sectional observation of sample tube inside surface

Unchahar Platen-SH [Front]



SEM Image (x300)

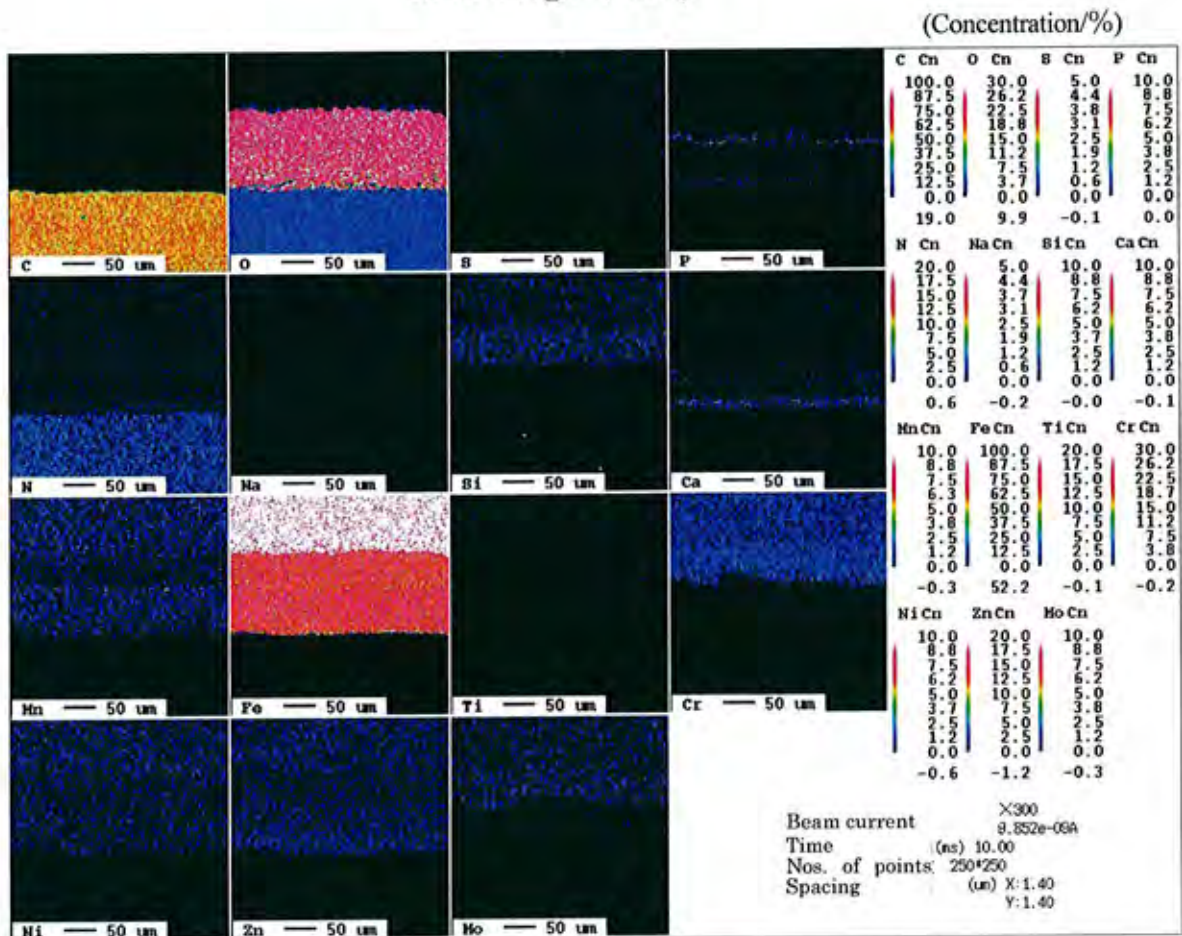
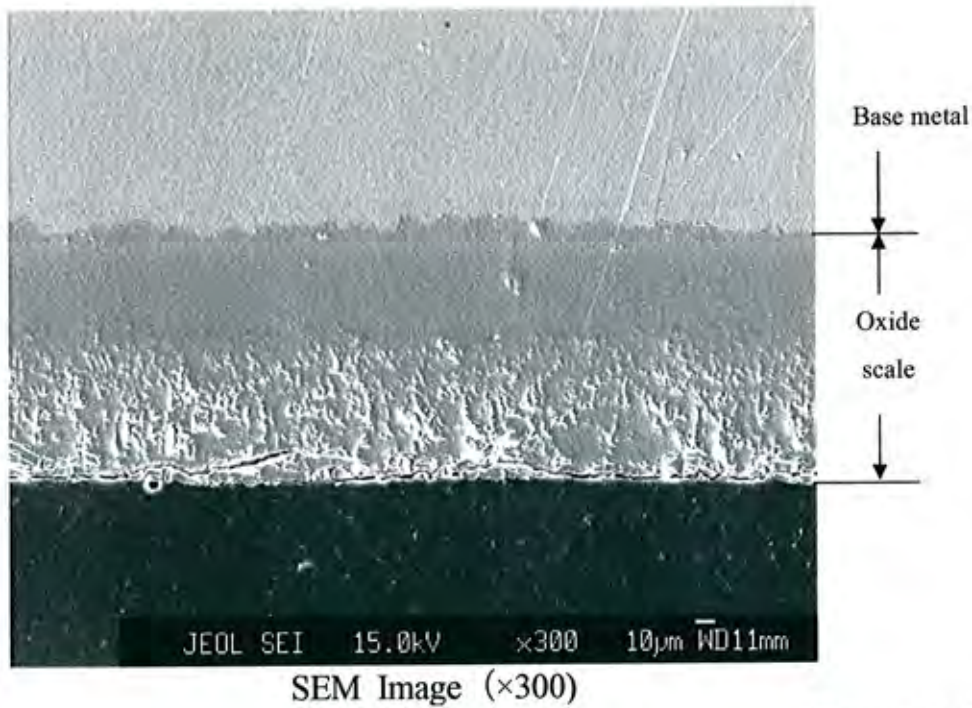


Element Mapping Image (brighter color indicates higher concentration)

Fig II-13. E PMA analysis results

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Unchahar Platen-SH [Right]

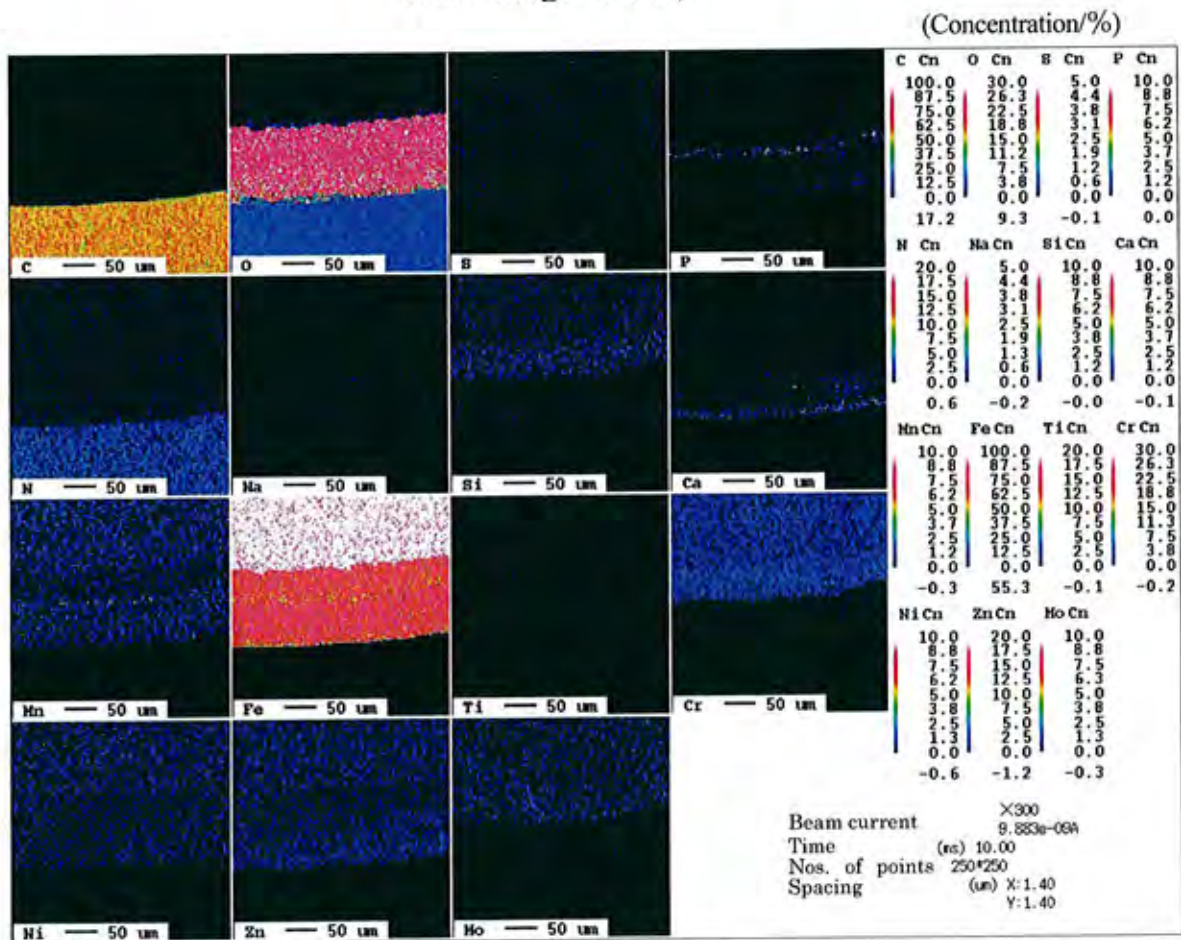
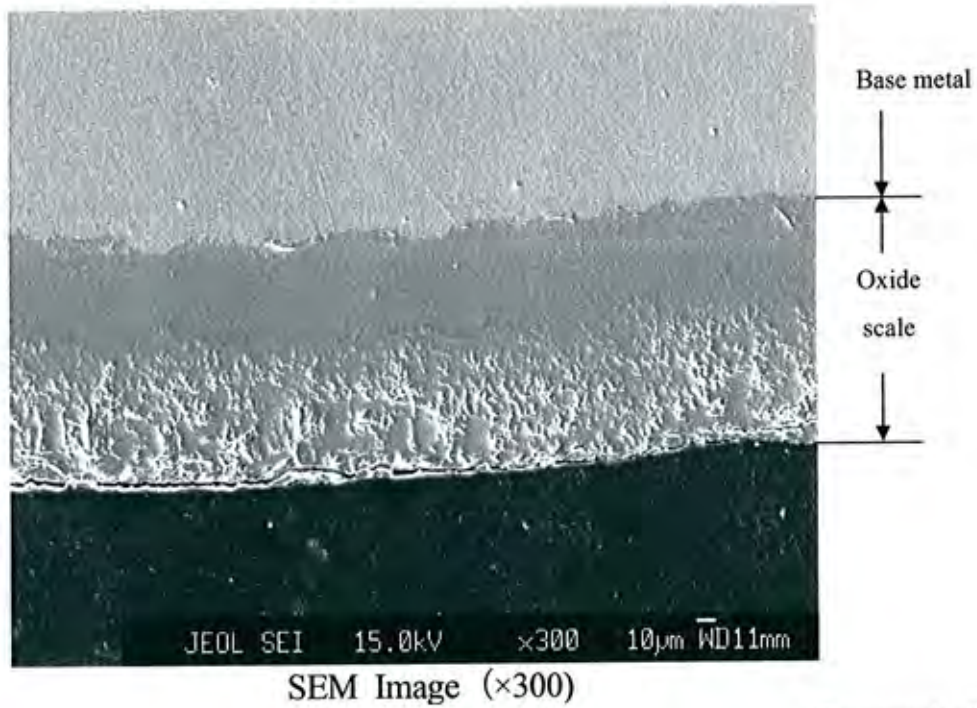


Element Mapping Image (brighter color indicates higher concentration)

Fig II-14. E PMA analysis results

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Unchahar Platen-SH [Rear]



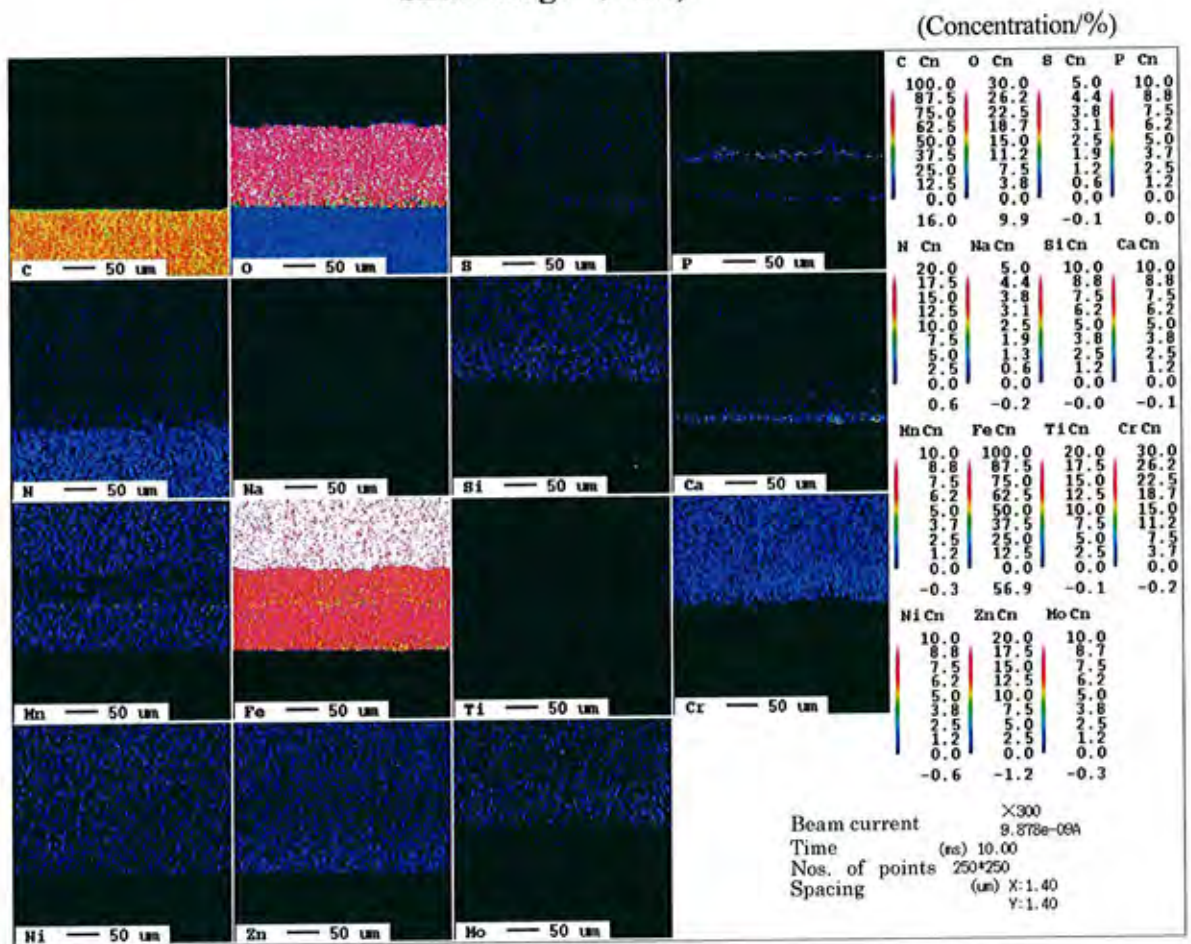
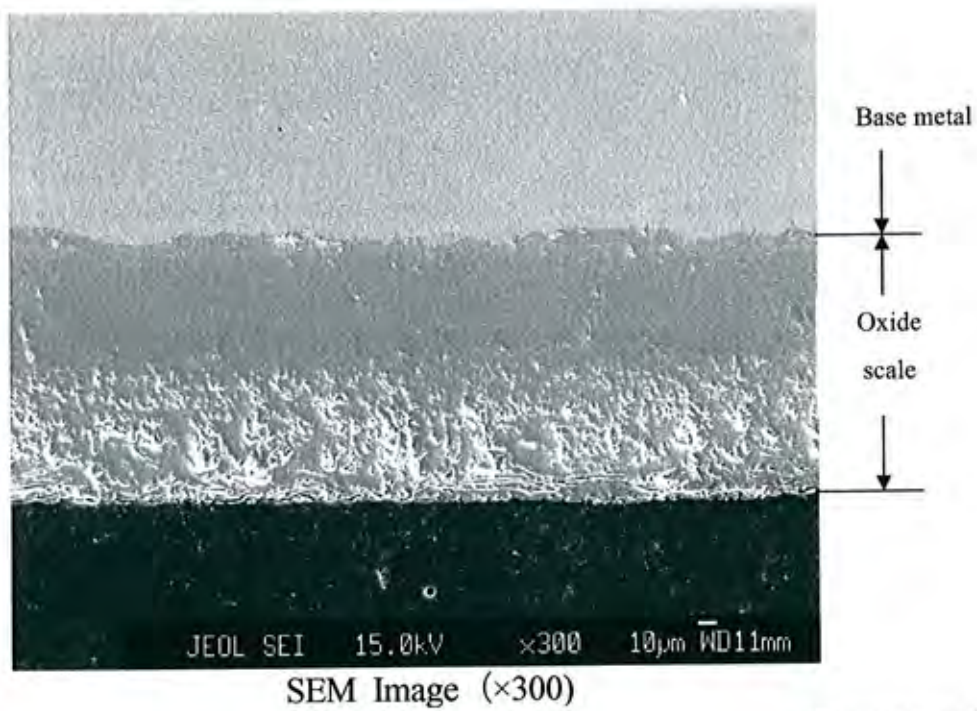
Element Mapping Image (brighter color indicates higher concentration)

Fig II-15. EPMA analysis results

520



Unchahar Platen-SH [Left]

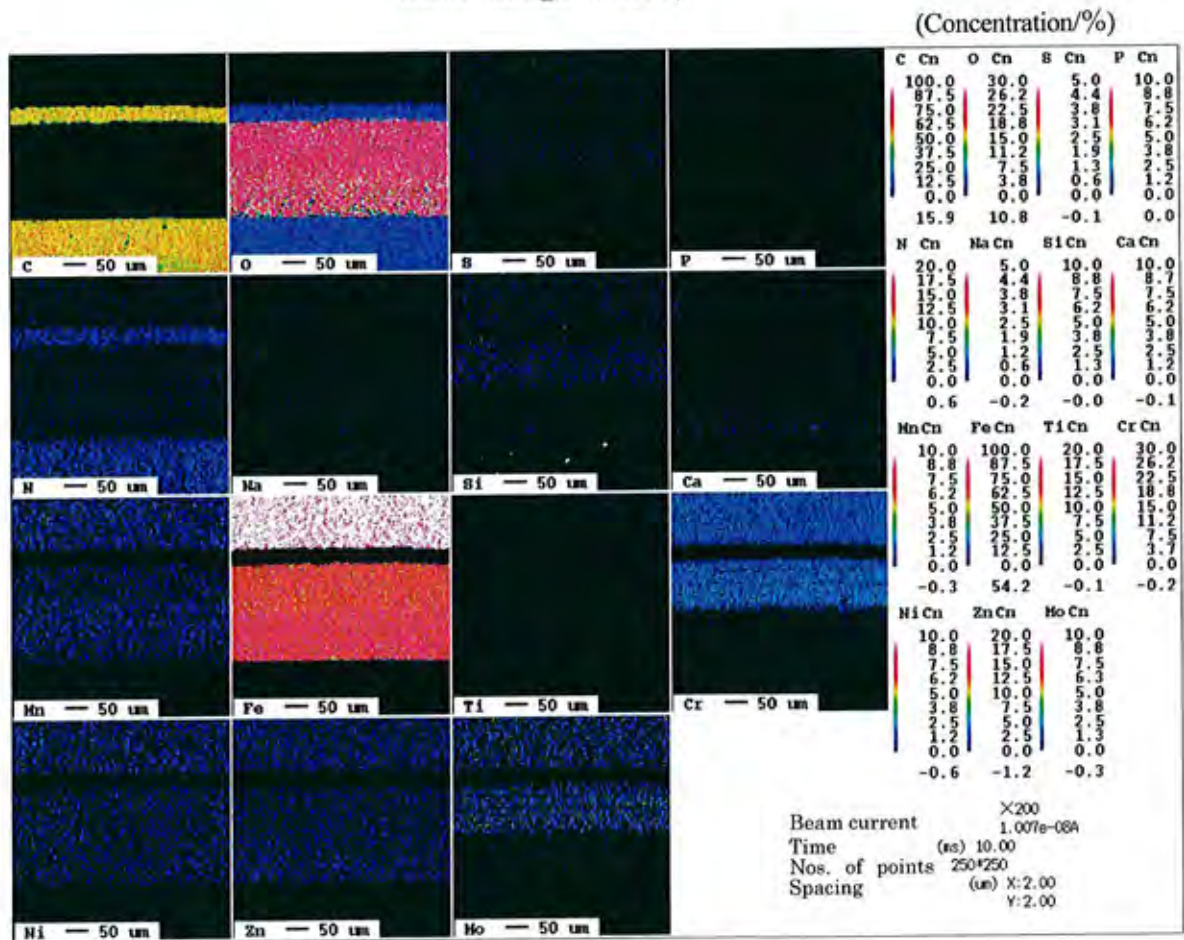
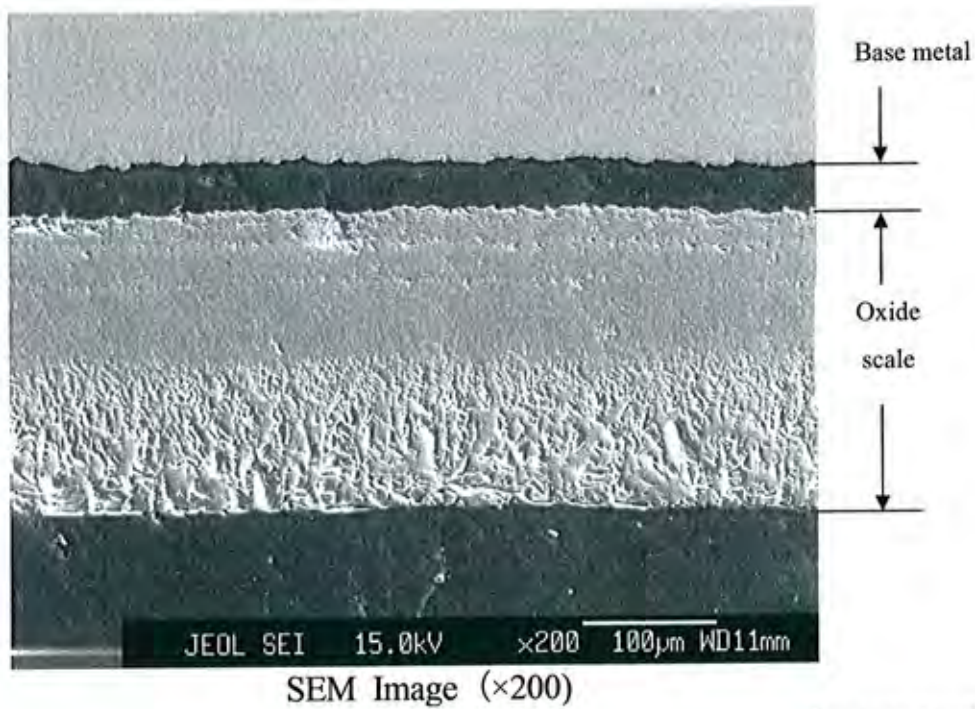


Element Mapping Image (brighter color indicates higher concentration)

Fig II-16. E PMA analysis results

172

Unchahar Final-SH#1 【Front】



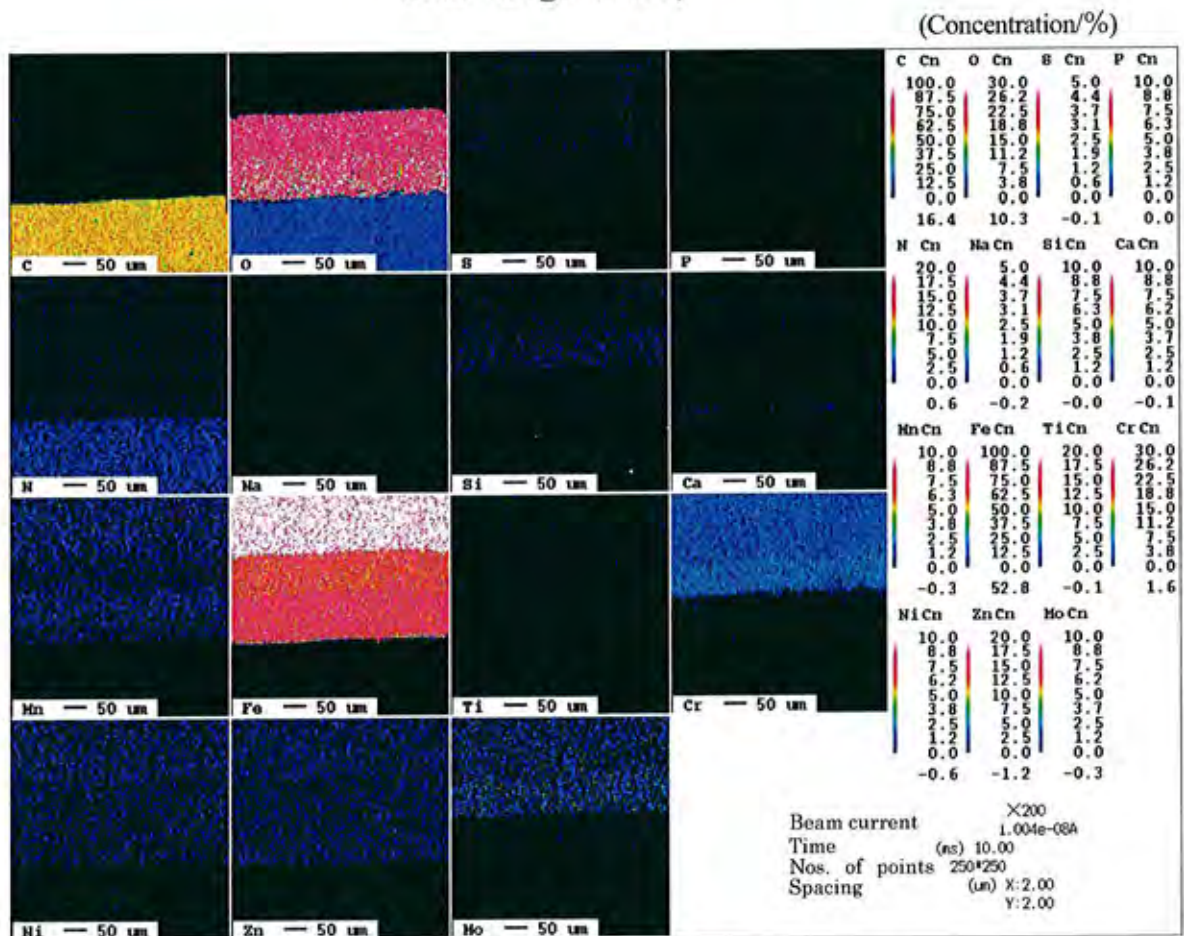
Element Mapping Image (brighter color indicates higher concentration)

Fig II-17. E PMA analysis results

Unchahar Final-SH#1 [Right]



SEM Image (x200)

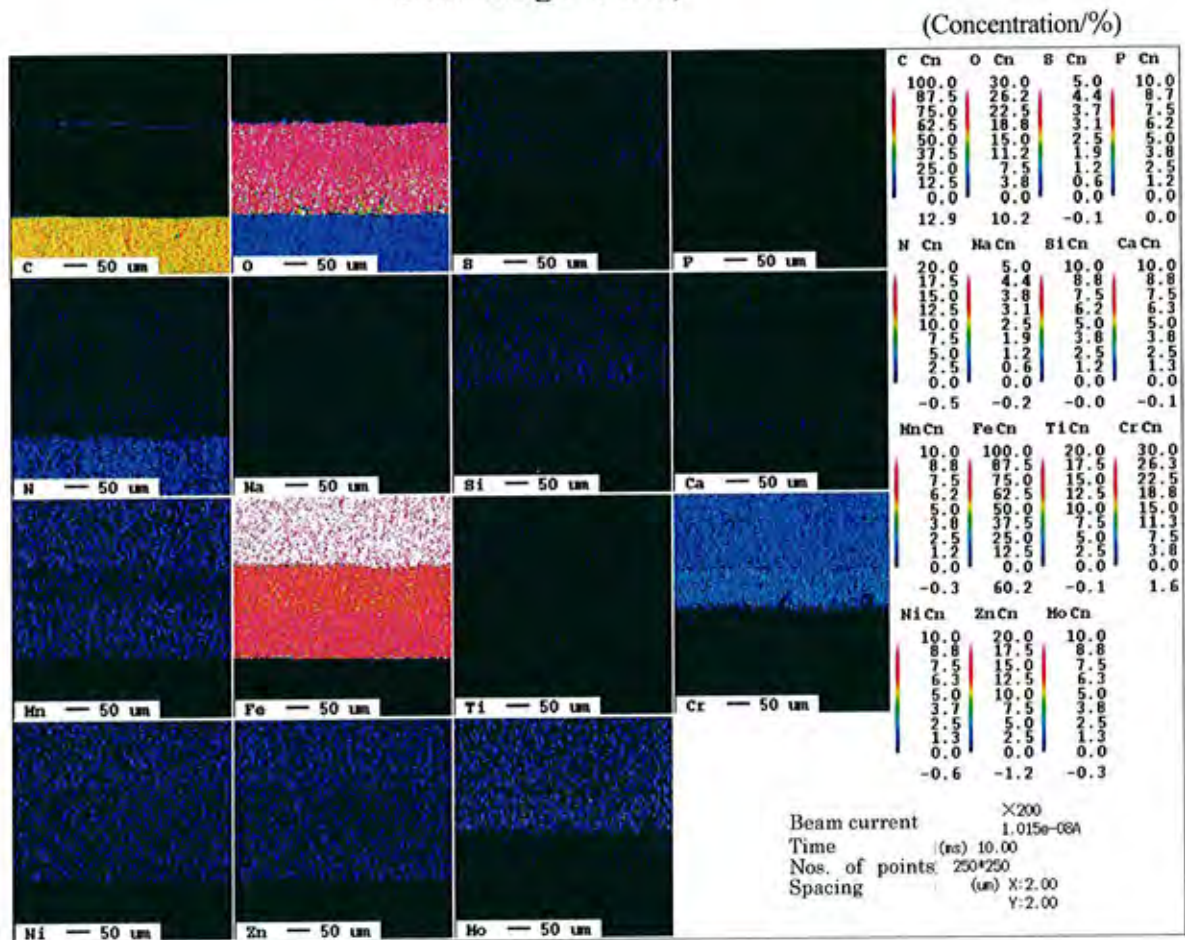
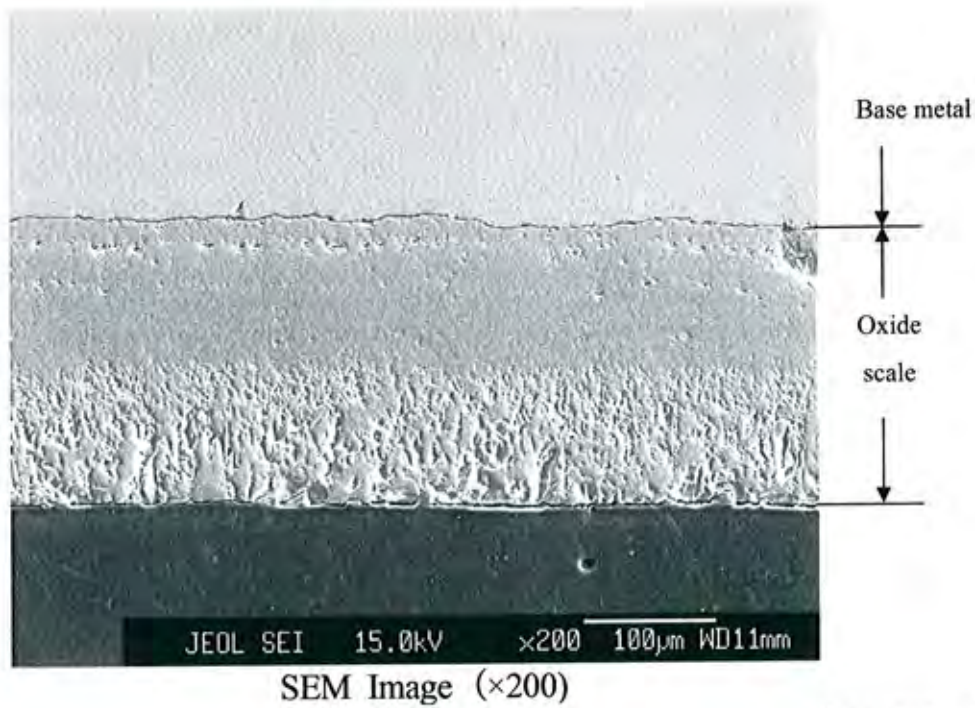


Element Mapping Image (brighter color indicates higher concentration)

Fig II-18. E PMA analysis results

523

Unchahar Final-SH#1 [Rear]

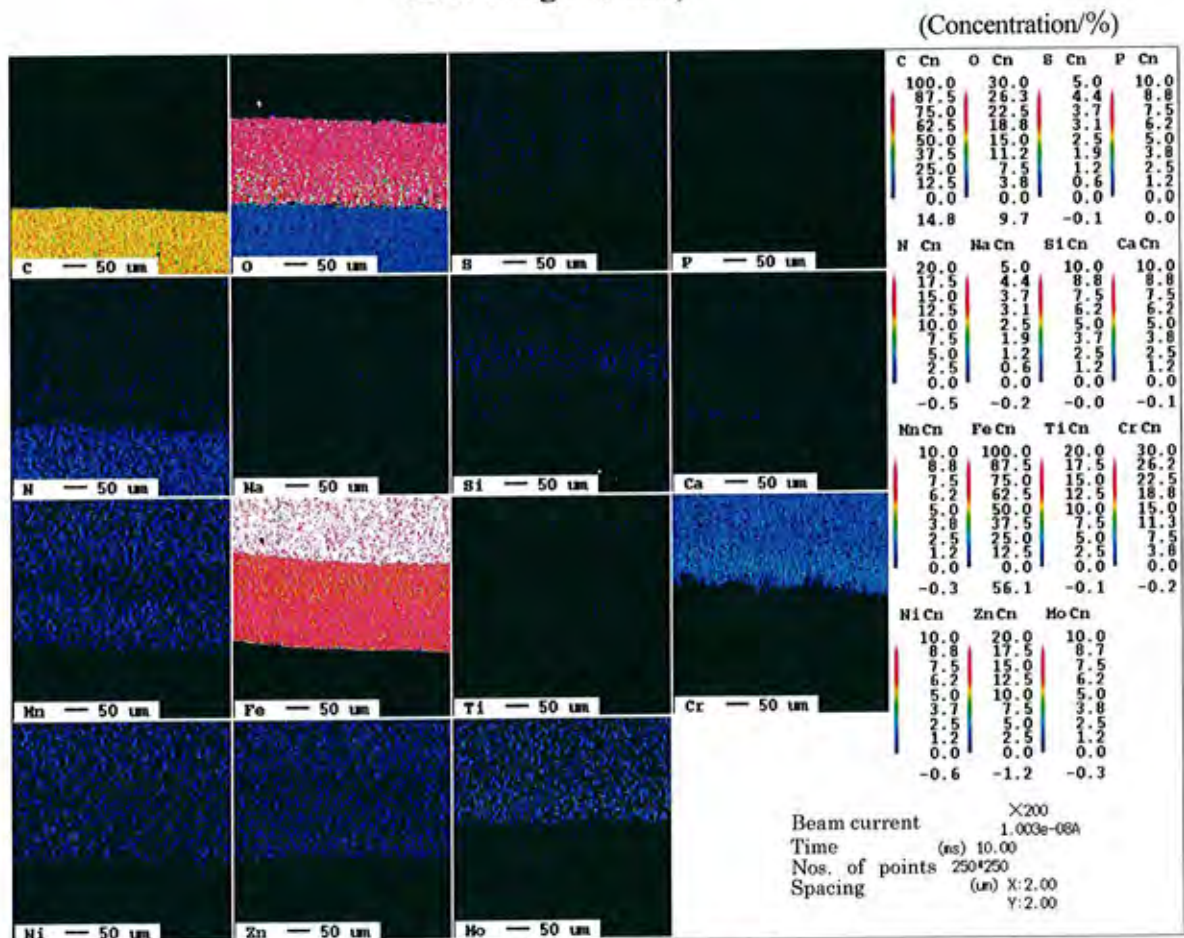
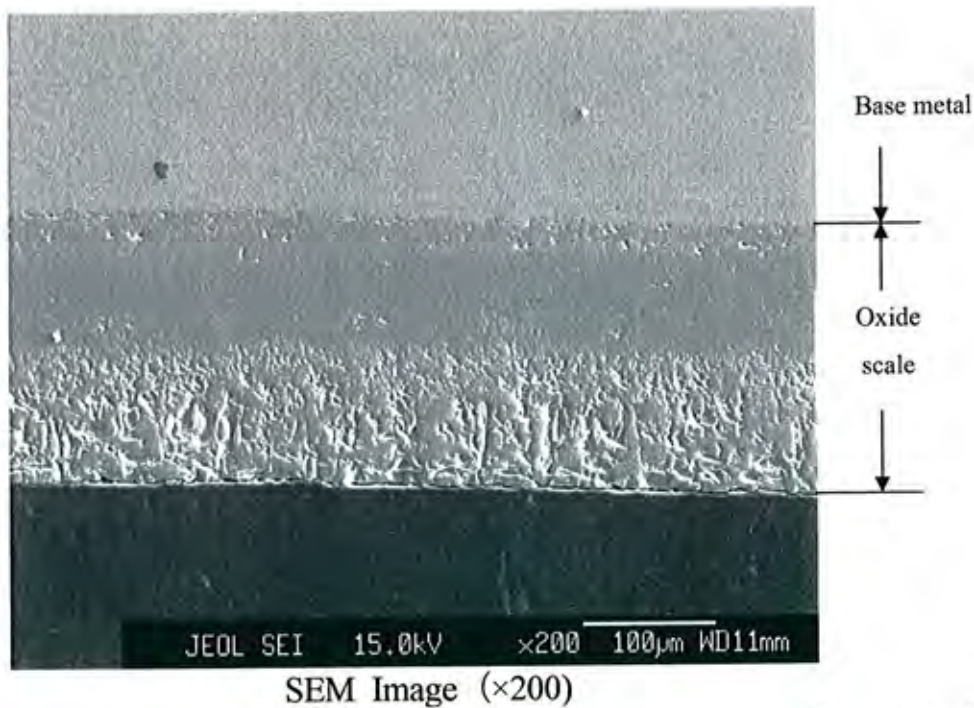


Element Mapping Image (brighter color indicates higher concentration)

Fig II-19. E PMA analysis results

528

Unchahar Final-SH#1 [Left]

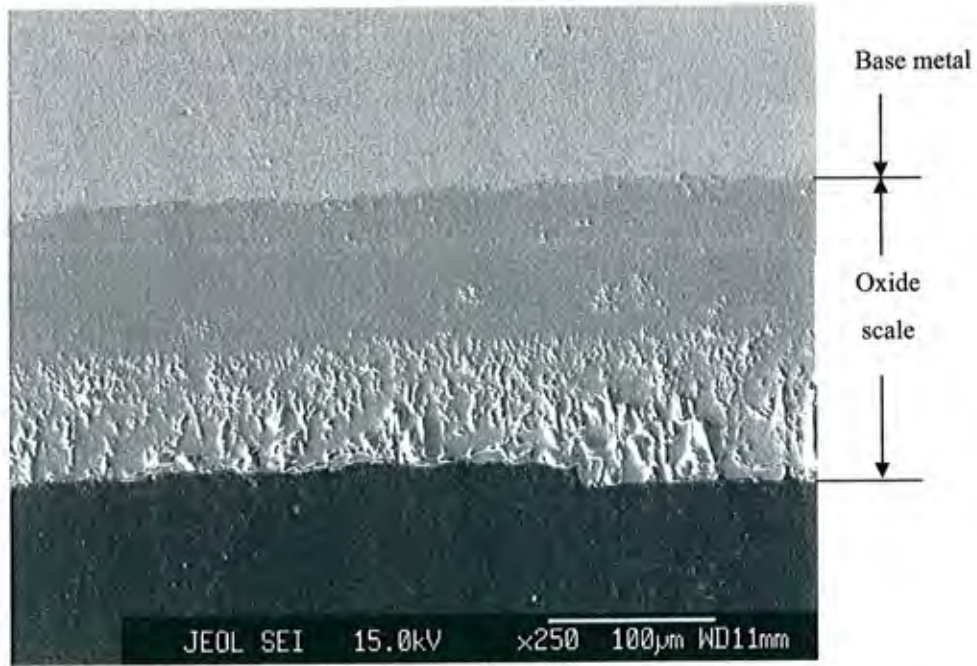


Element Mapping Image (brighter color indicates higher concentration)

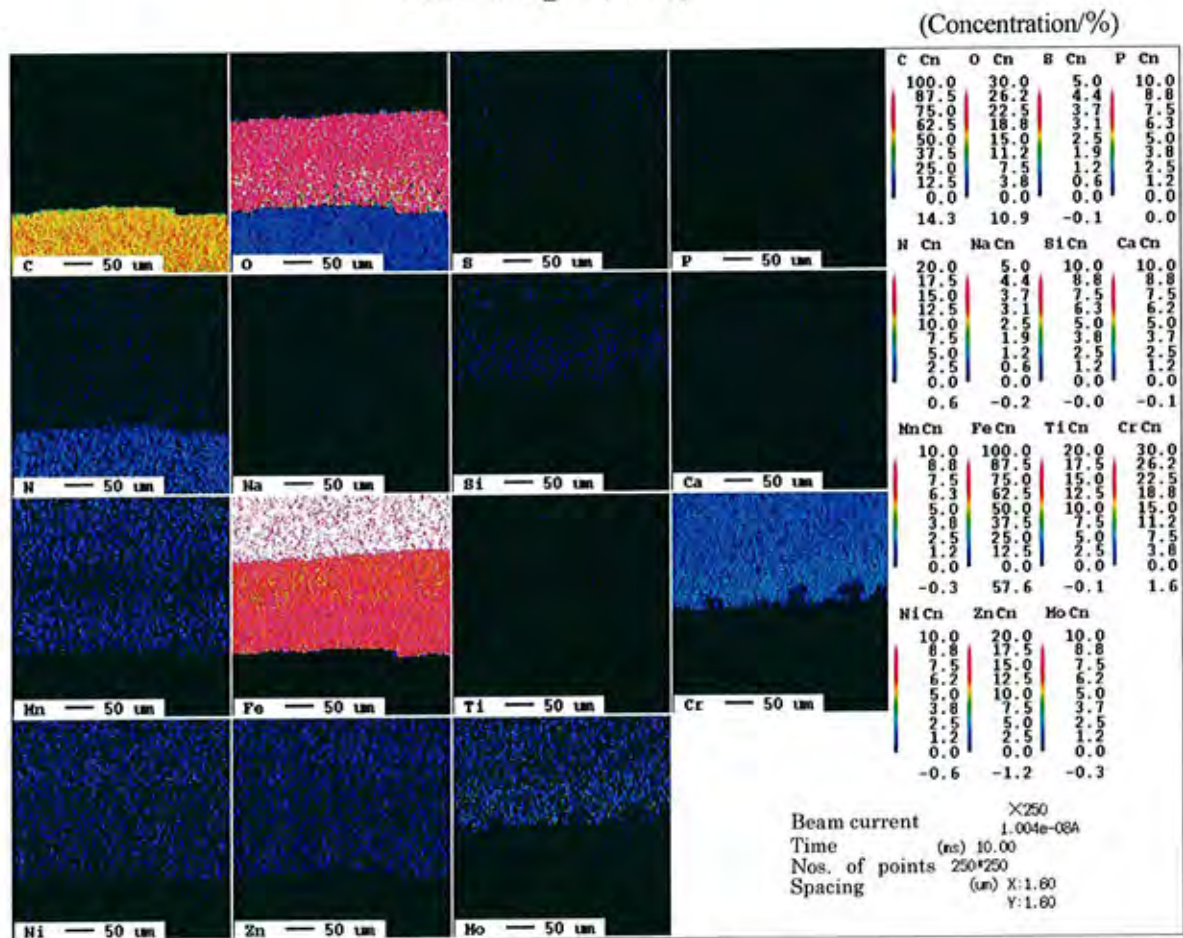
Fig II-20. E PMA analysis results

525-

Unchahar Final-SH#119 【Front】

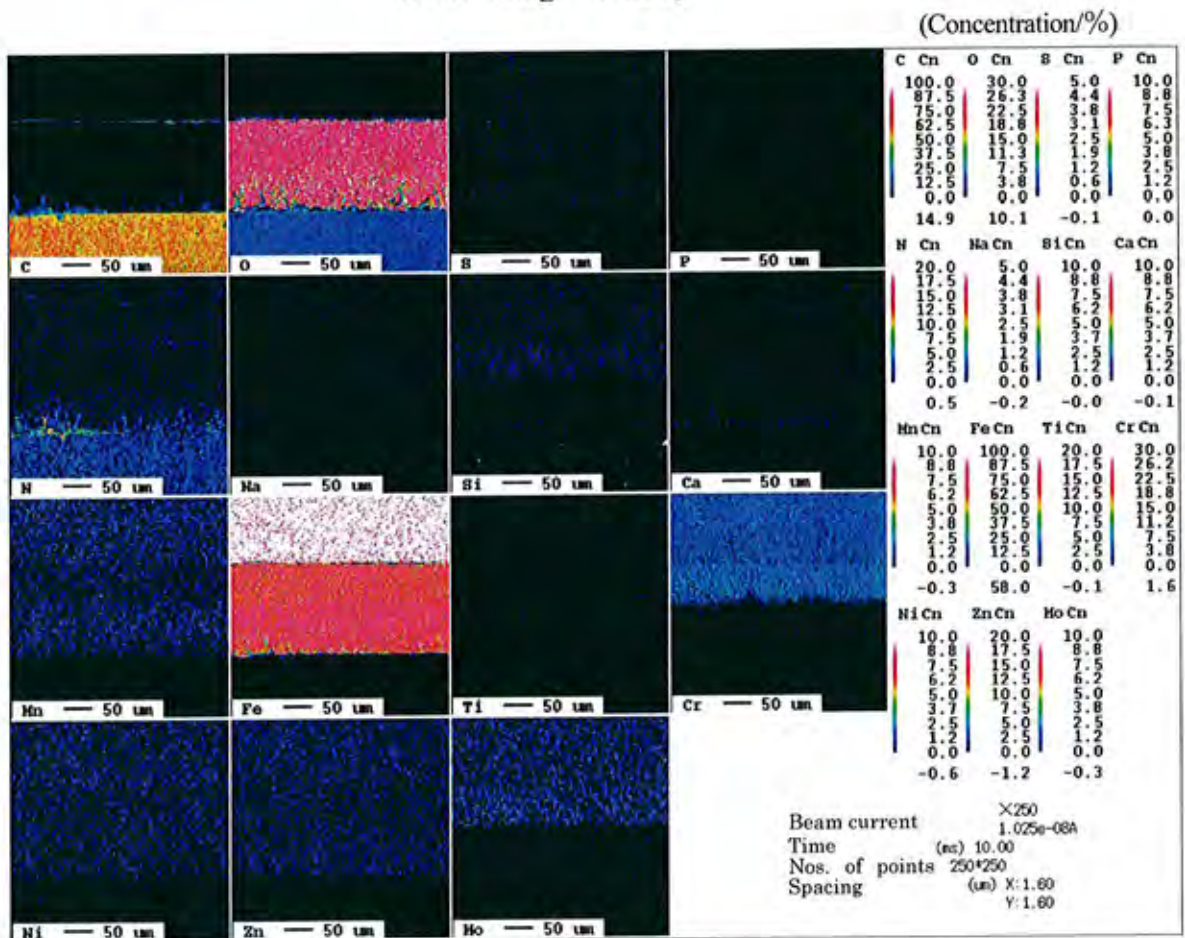
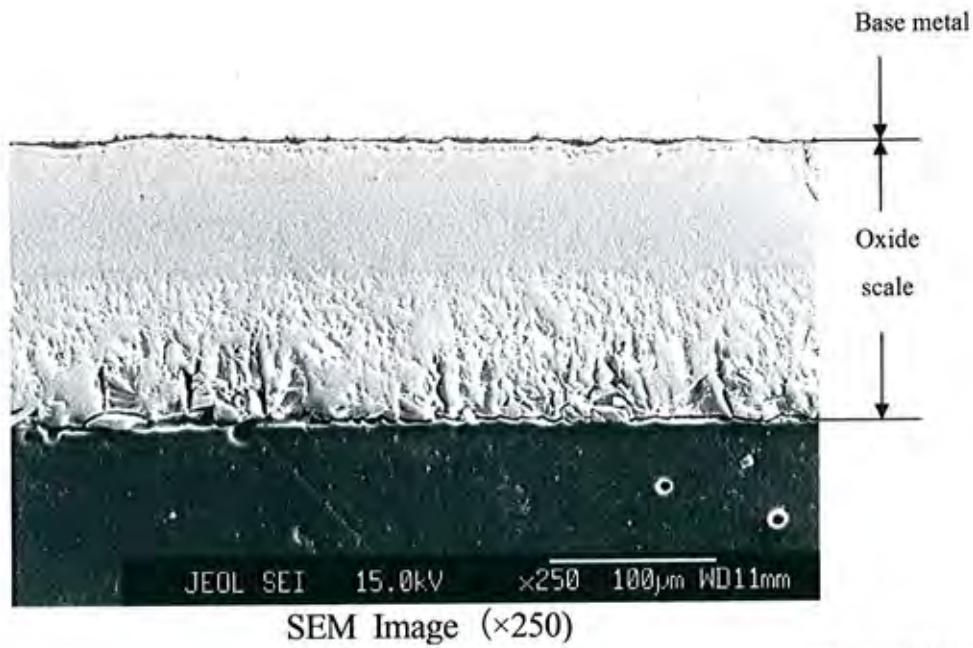


SEM Image (×250)



Element Mapping Image (brighter color indicates higher concentration)

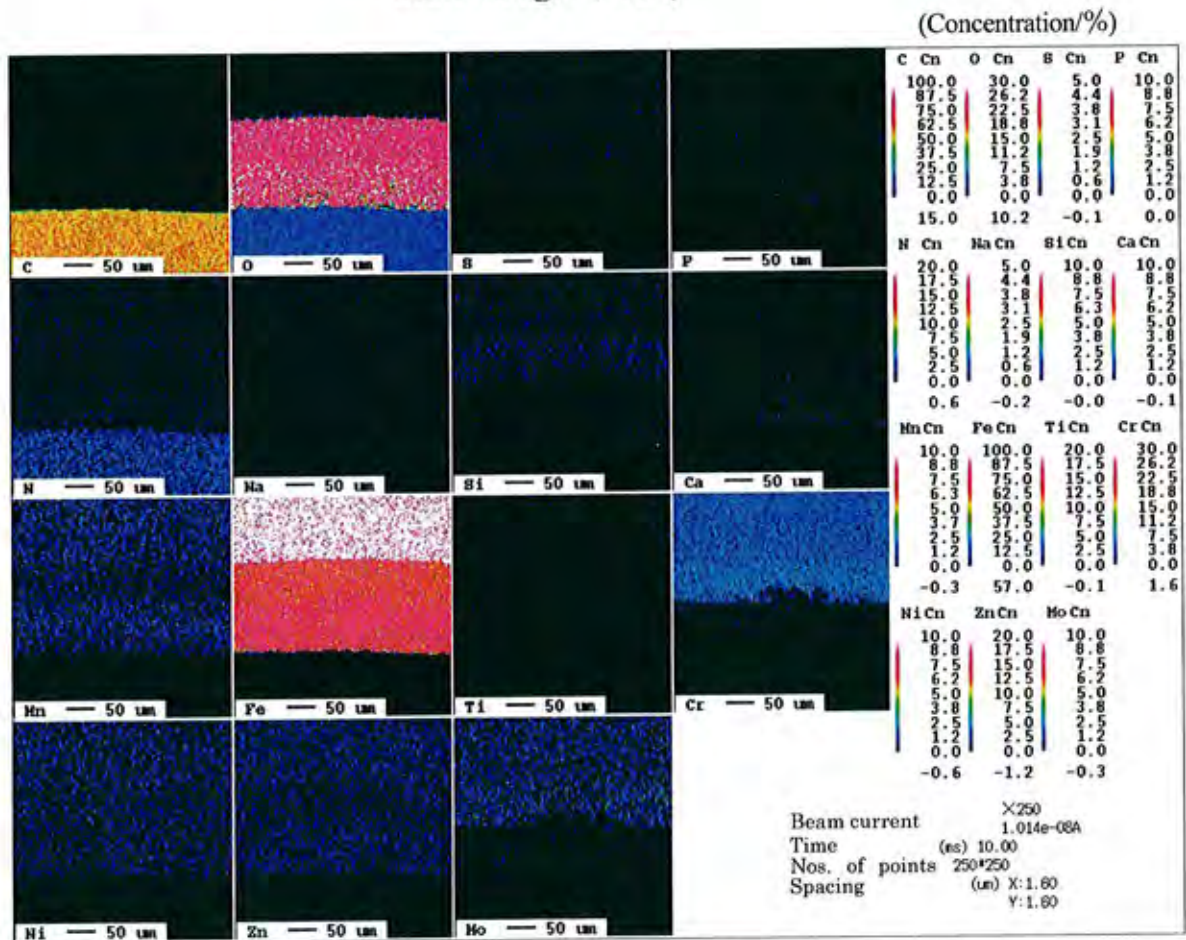
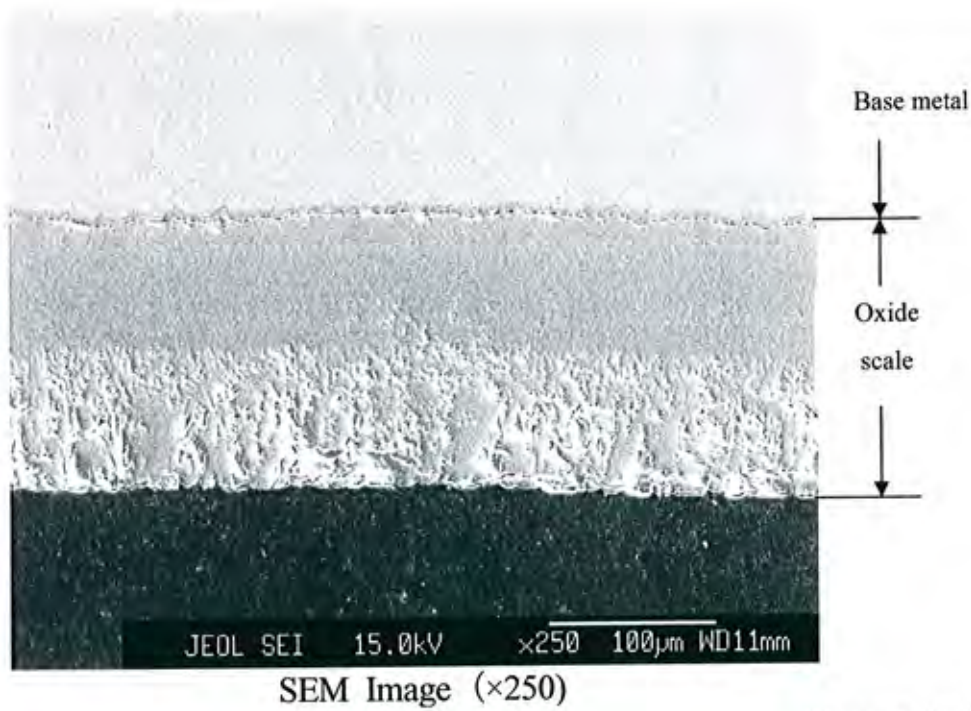
Fig II-21. EPMA analysis results



Element Mapping Image (brighter color indicates higher concentration)

Fig II-22. E PMA analysis results

529



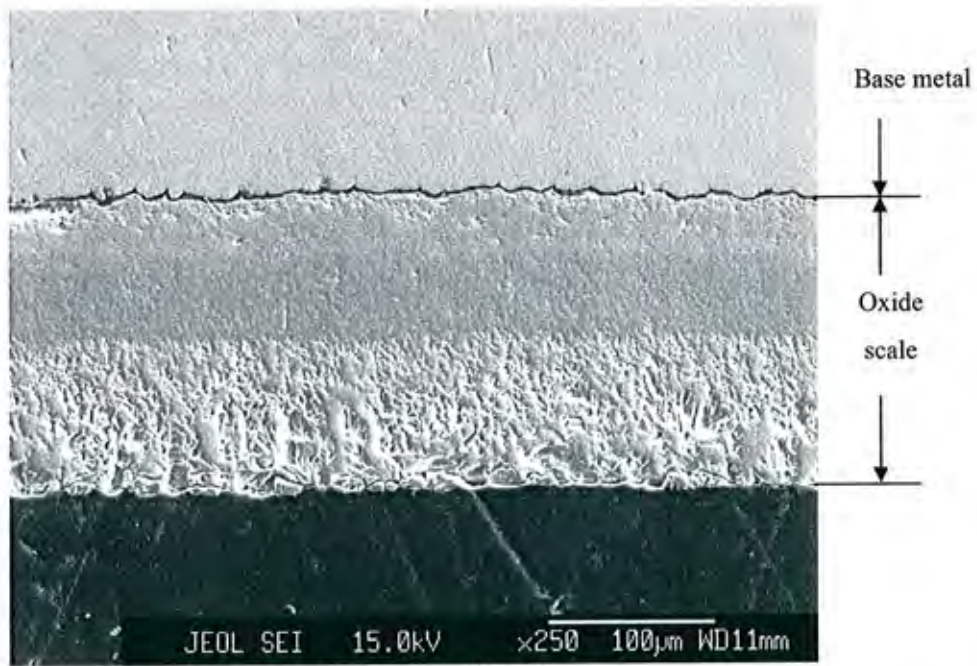
Element Mapping Image (brighter color indicates higher concentration)

Fig II-23. E PMA analysis results

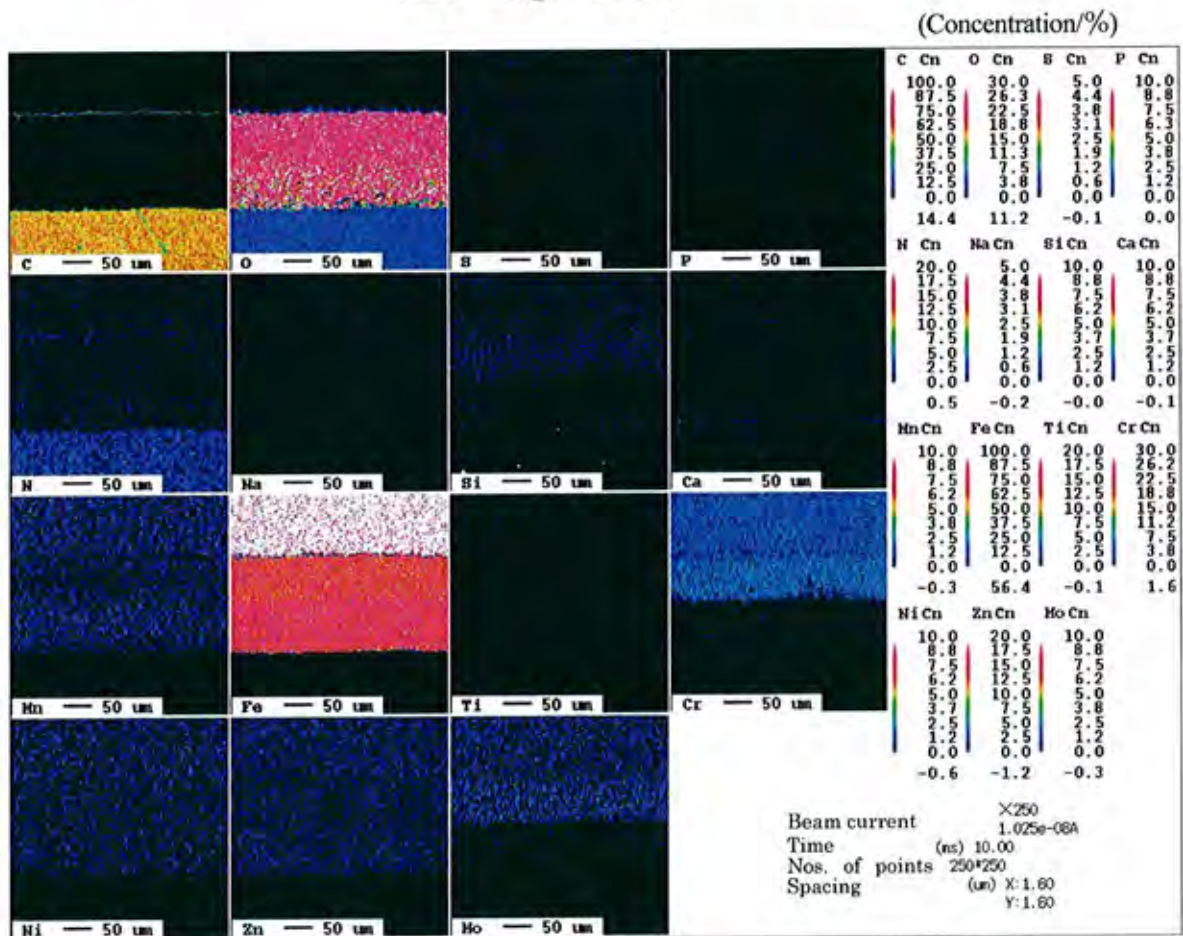
528



Unchahar Final-SH#119 [Left]



SEM Image (×250)



Element Mapping Image (brighter color indicates higher concentration)

Fig II -24. E PMA analysis results

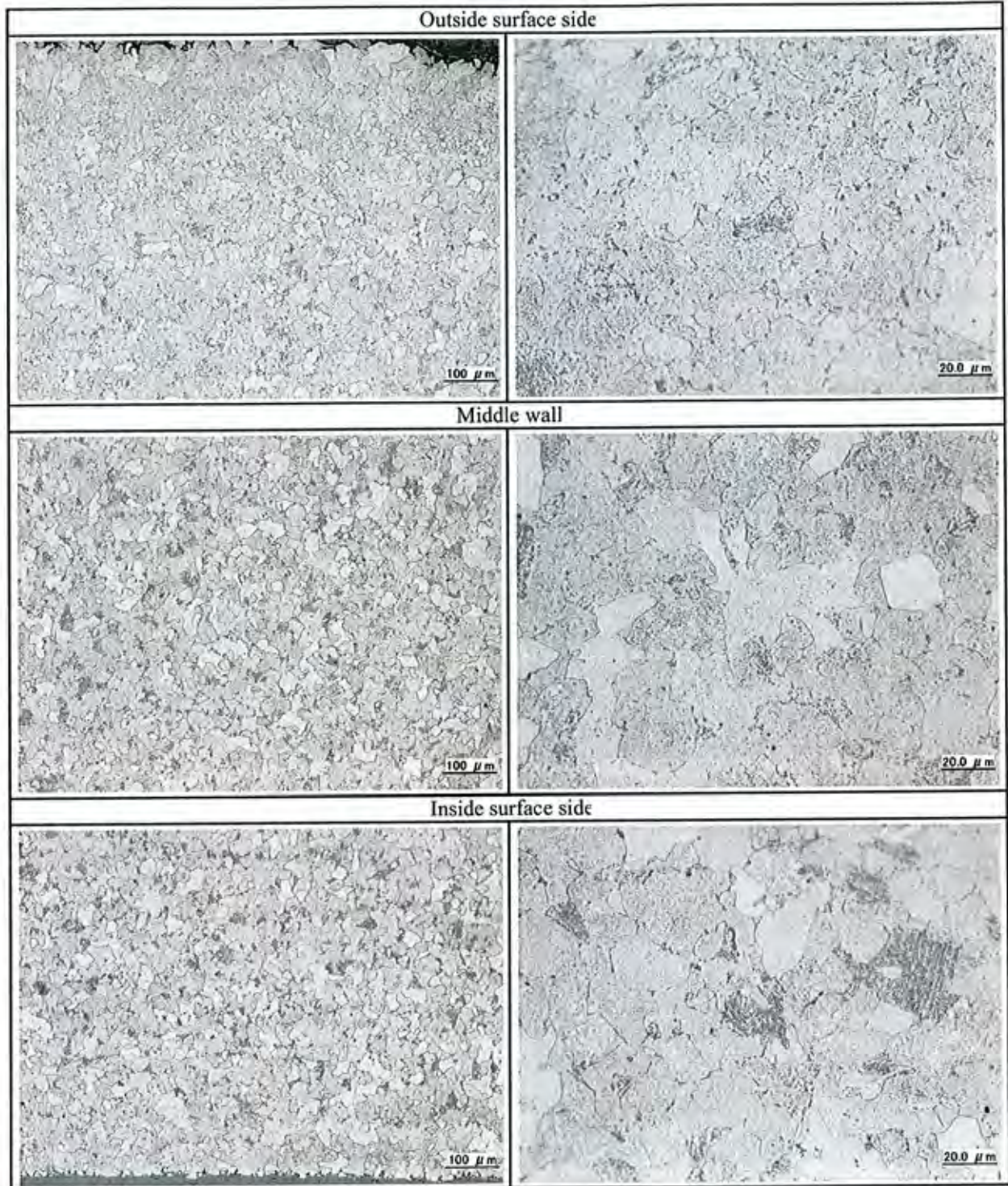


Photo II -22 Microstructure observation at cross section of sample tube  
 [Platen-SH#3 (right side, Base Metal) ]

530

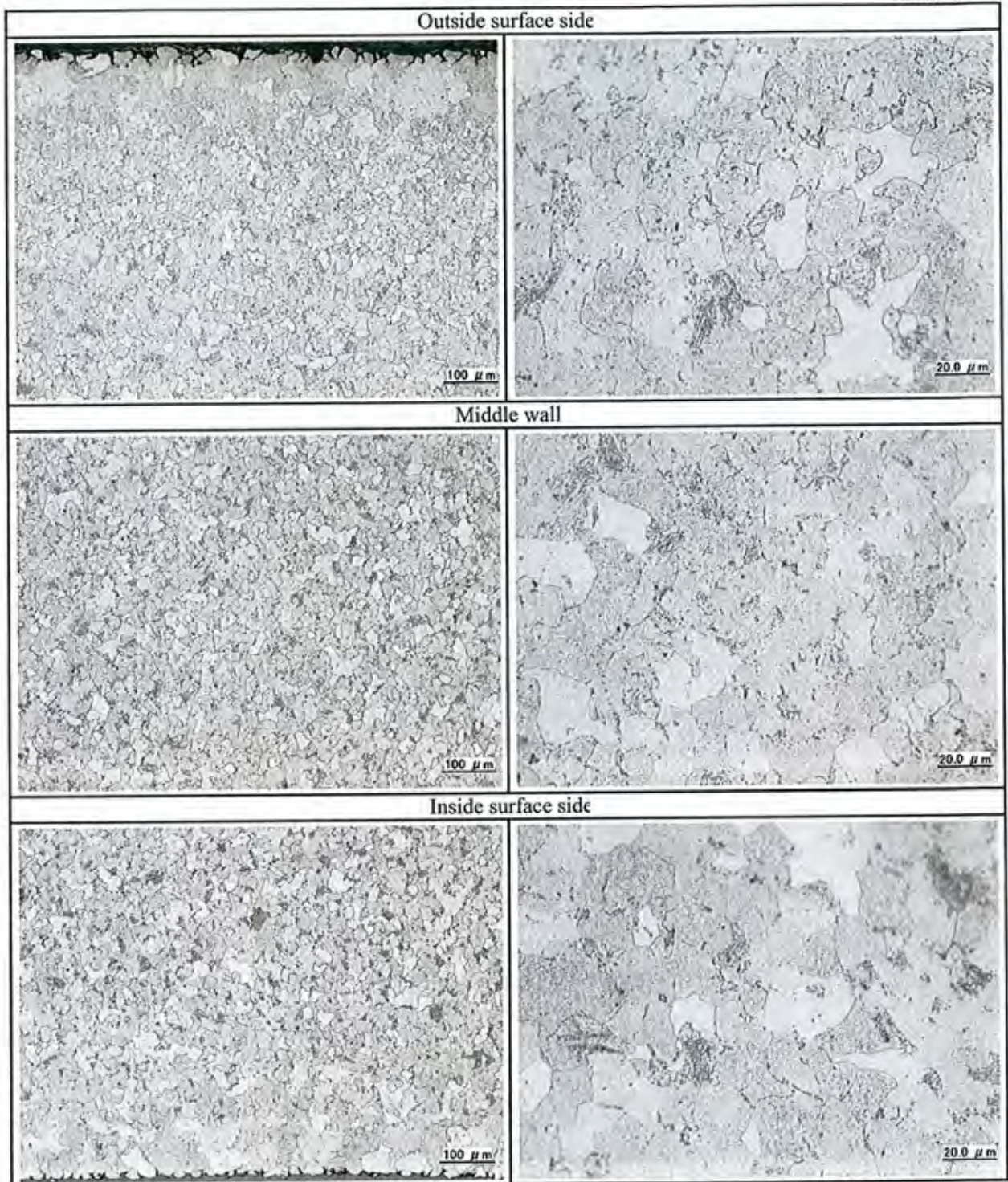


Photo II -23 Microstructure observation at cross section of sample tube  
 [Platen-SH#3 (left side, Base Metal) ]

531

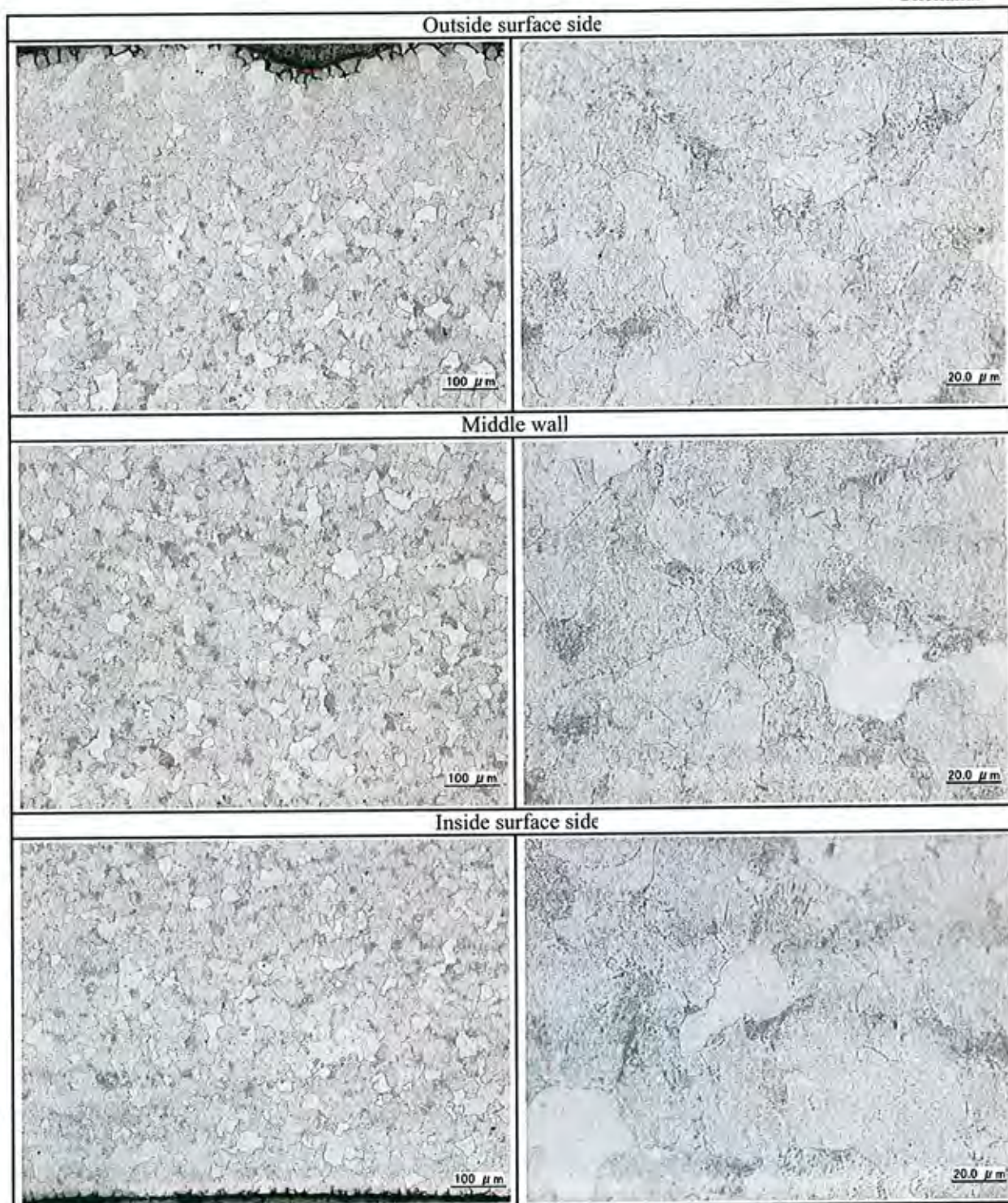


Photo II -24 Microstructure observation at cross section of sample tube  
 [Final-SH #1 (right side, Base Metal) ]

532

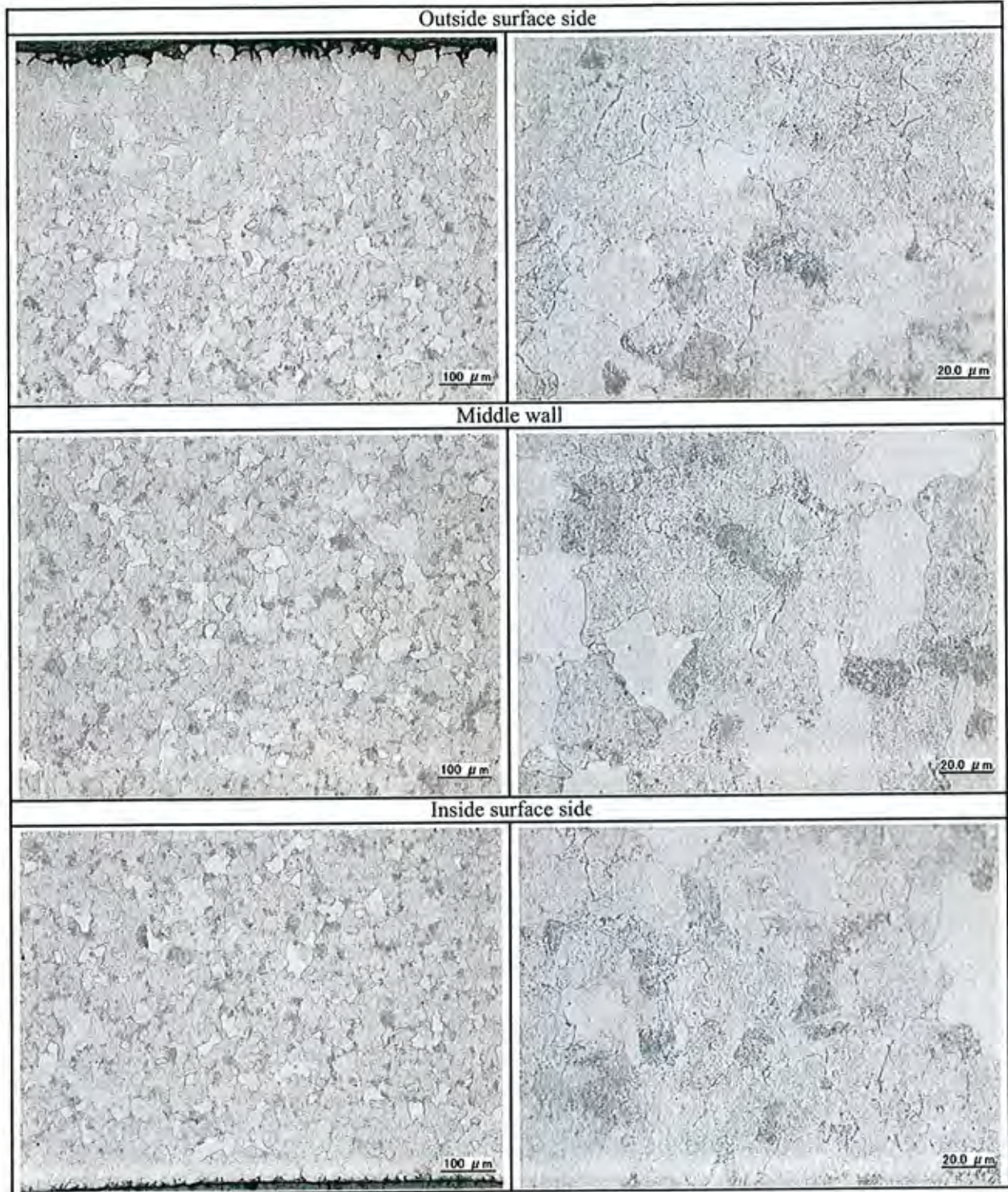


Photo II -25 Microstructure observation at cross section of sample tube  
 [ Final-SH #1 (left side, Base Metal) ]

533

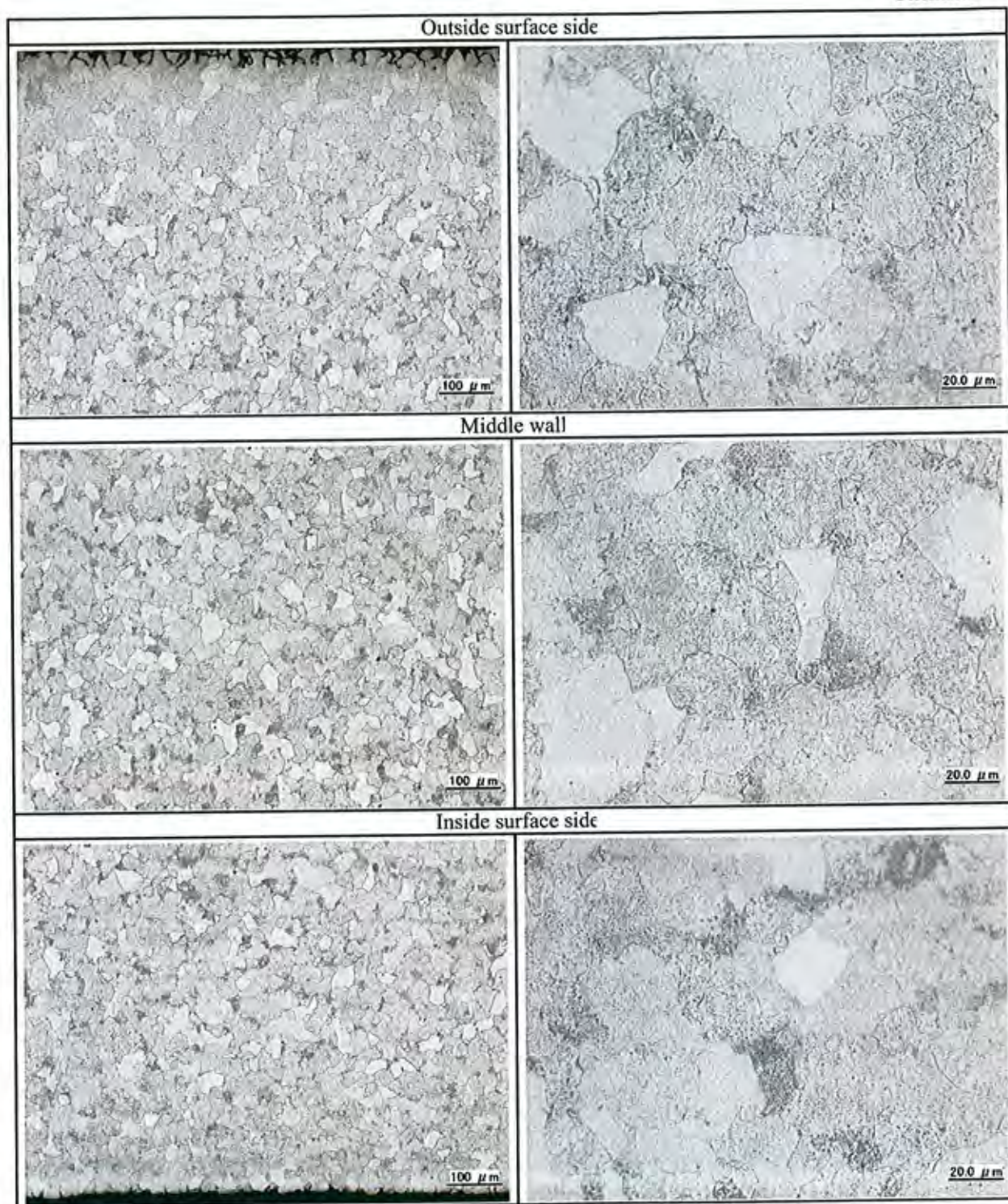


Photo II -26 Microstructure observation at cross section of sample tube [Final-SH #119 (right side, Base Metal) ]

534

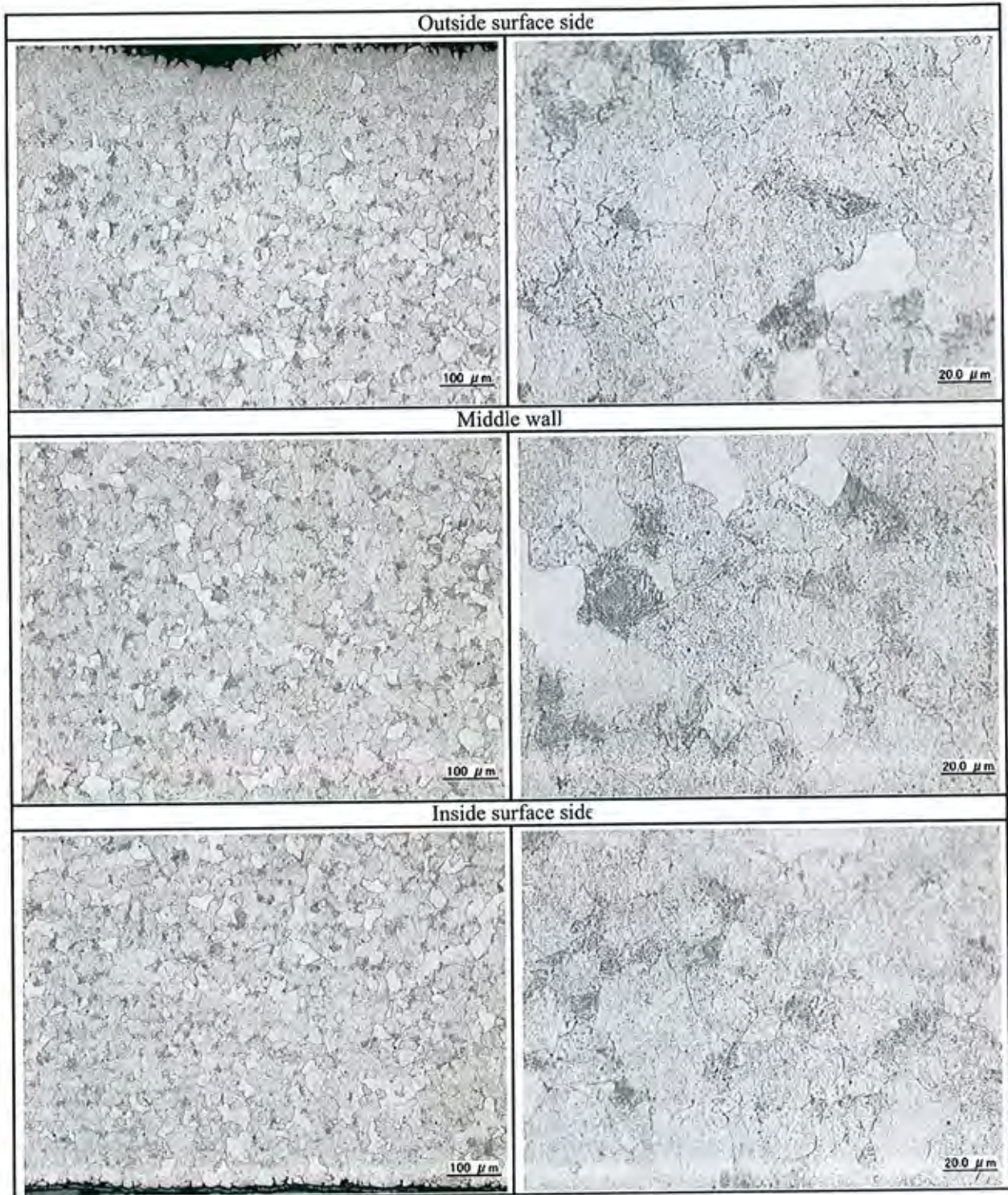


Photo II -27 Microstructure observation at cross section of sample tube  
 [Final-SH #119 (left side, Base Metal) ]

535

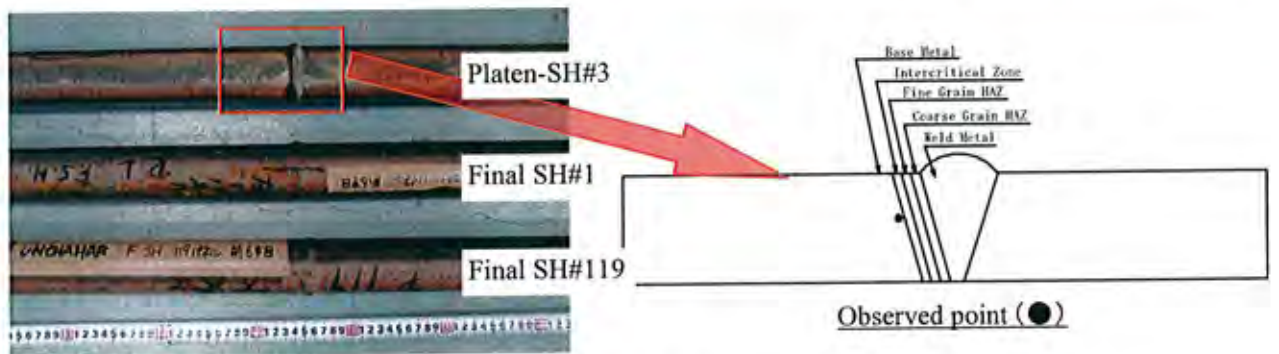


Photo II -28 Microstructure observation at cross section of sample tube [Platen-SH#3 (Base Metal) ]

536



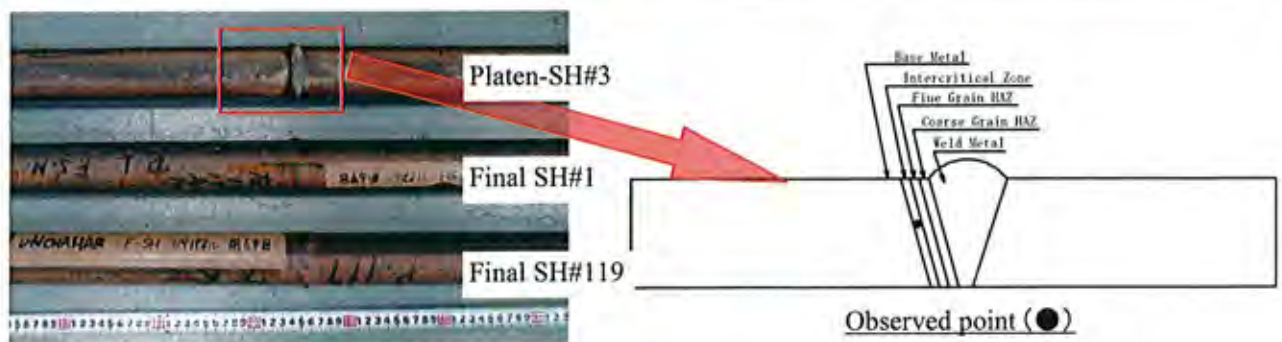
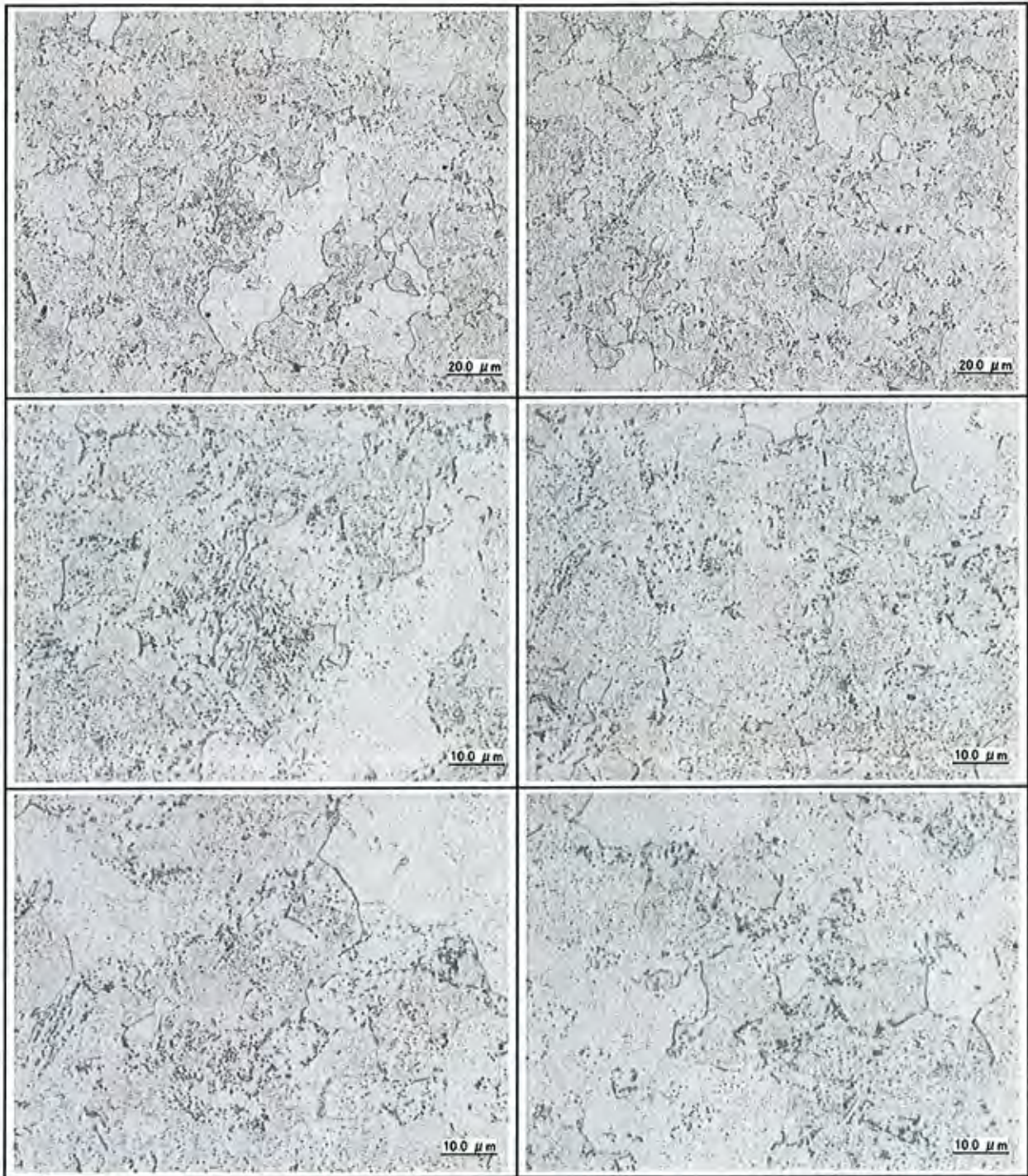


Photo II -29 Microstructure observation at cross section of sample tube  
 [Platen-SH#3 (Intercritical Zone) ]

537

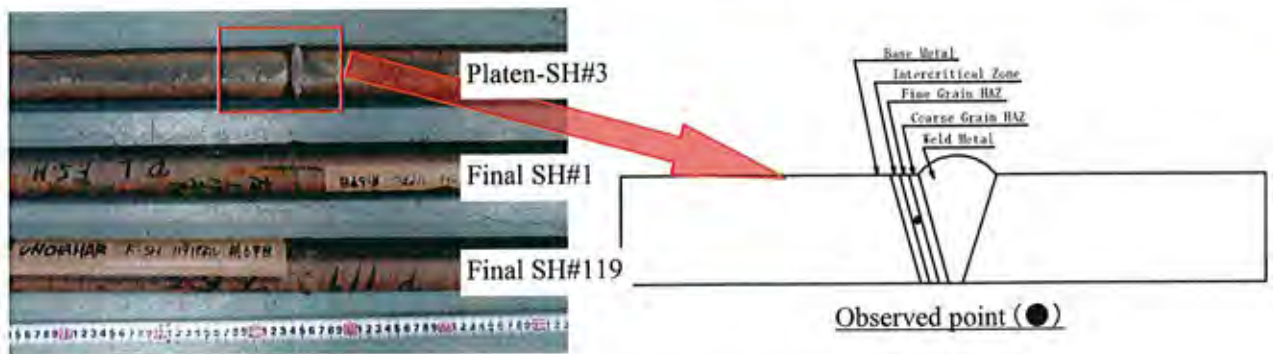
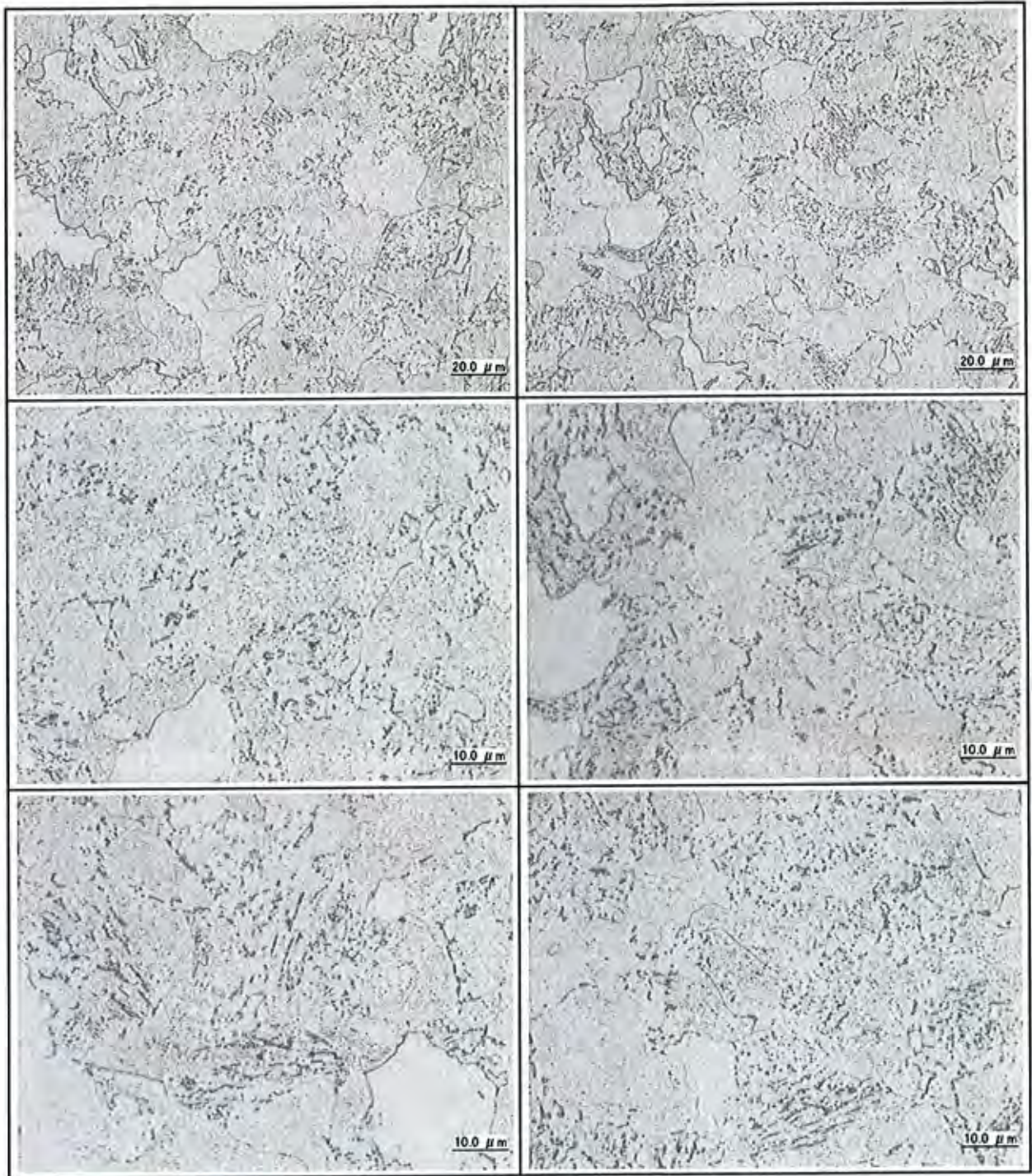


Photo II -30 Microstructure observation at cross section of sample tube  
[Platen-SH#3 (Fine Grain HAZ) ]

528

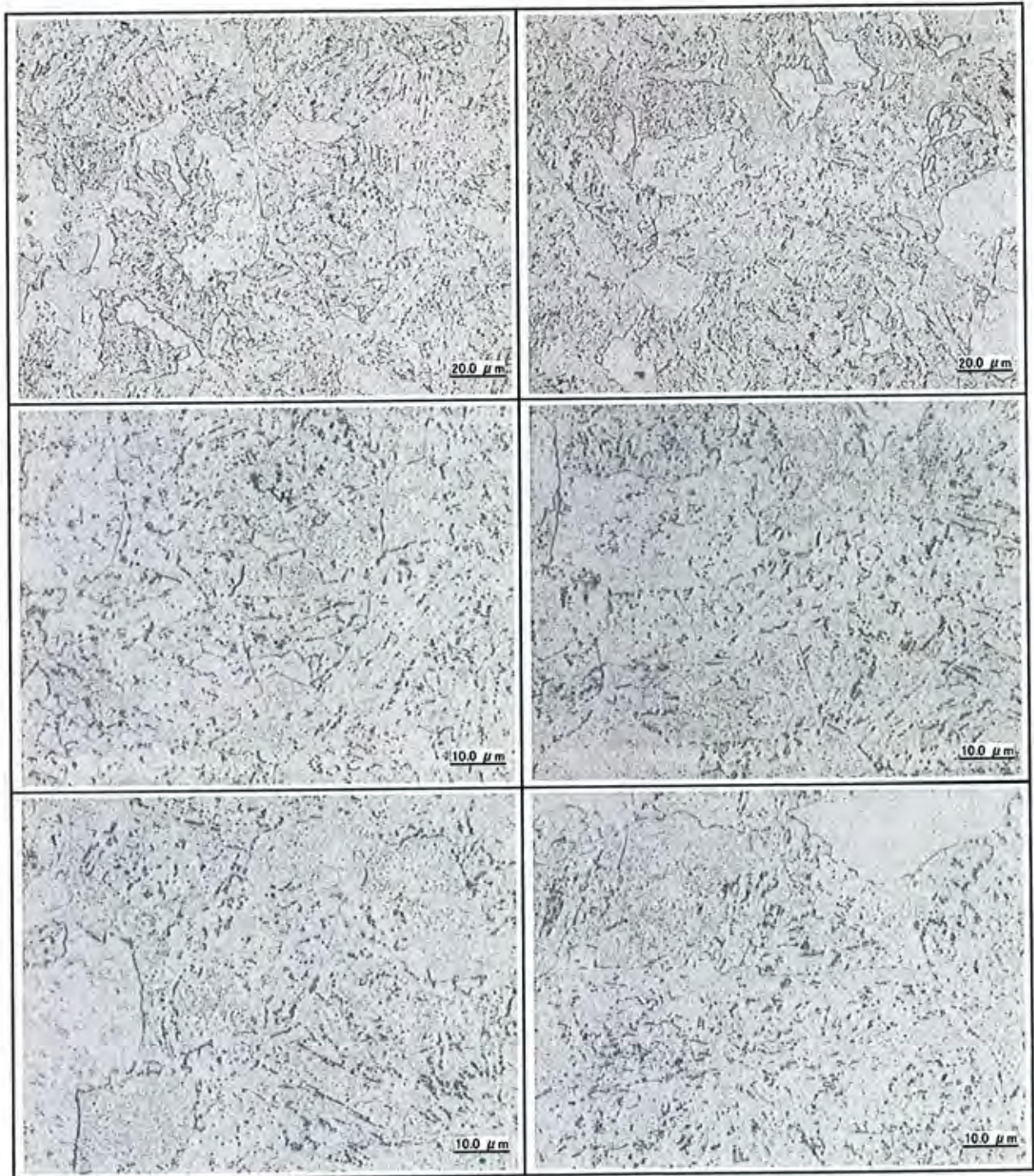


Photo II -31 Microstructure observation at cross section of sample tube  
 [Platen-SH#3 (Coarse Grain HAZ) ]

539

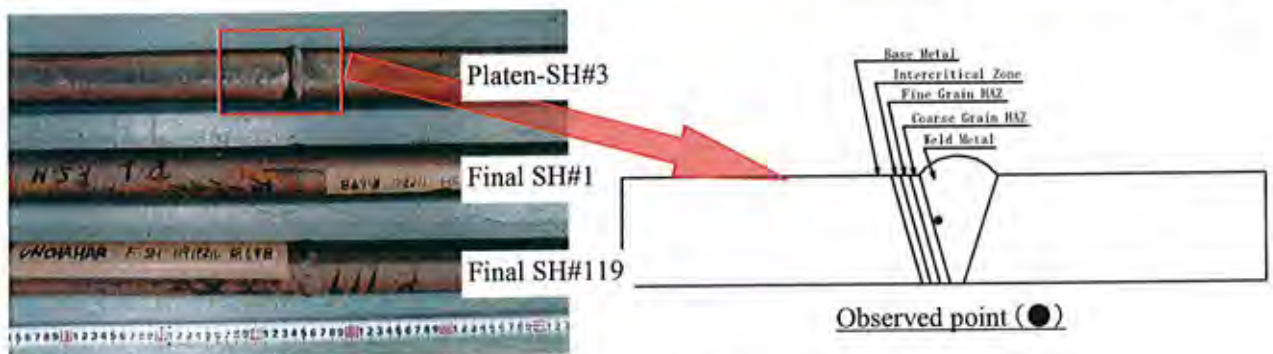
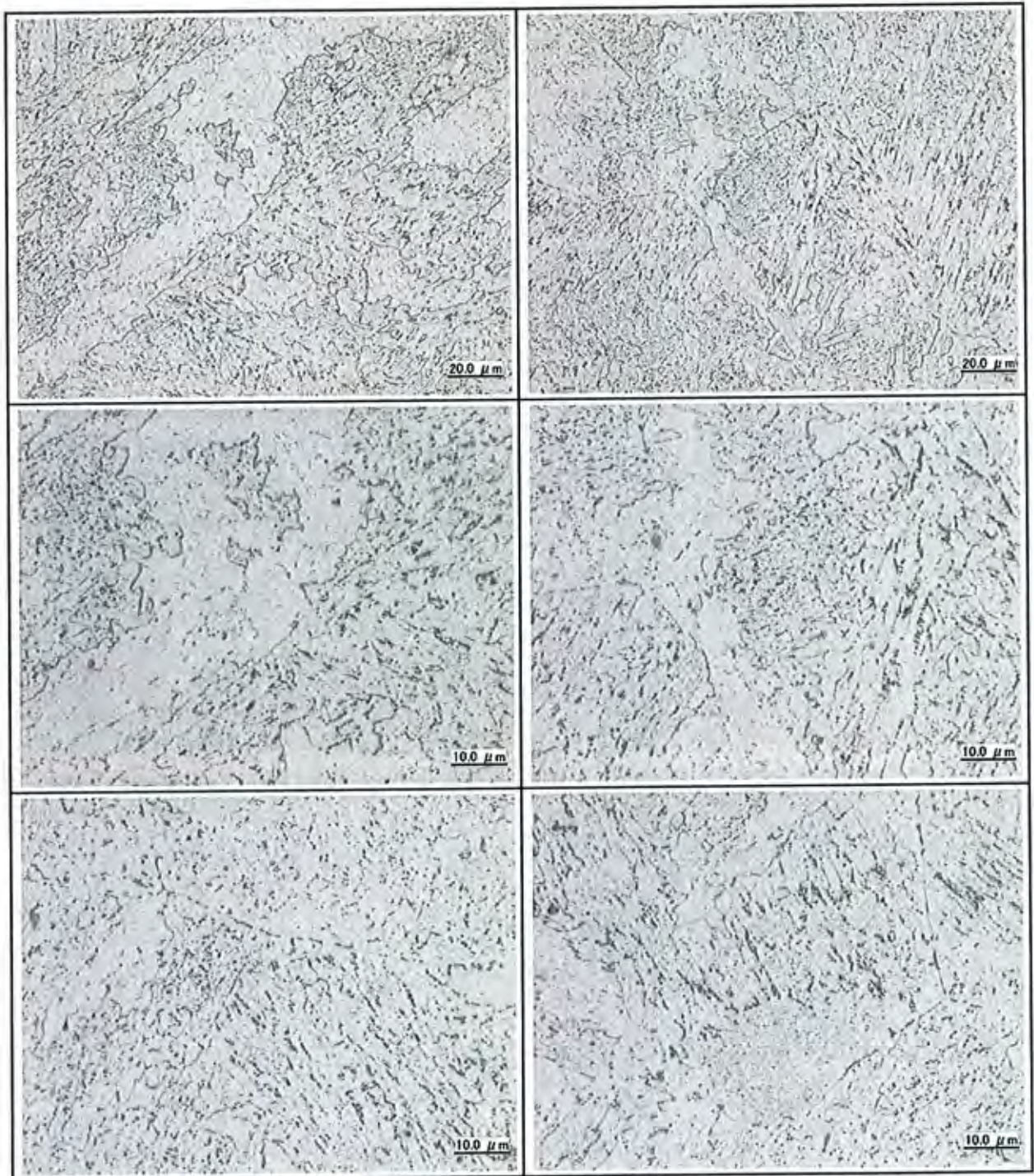


Photo II -32 Microstructure observation at cross section of sample tube  
 [Platen-SH#3 (Weld Metal) ]

540

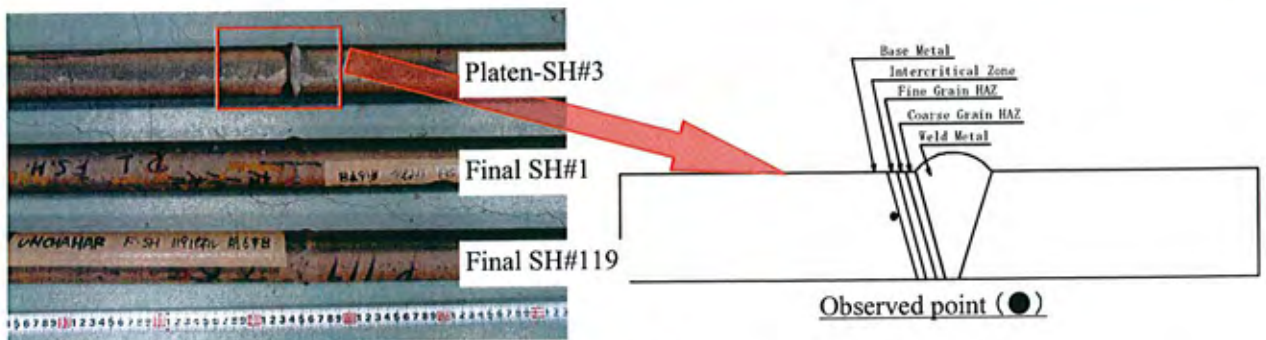
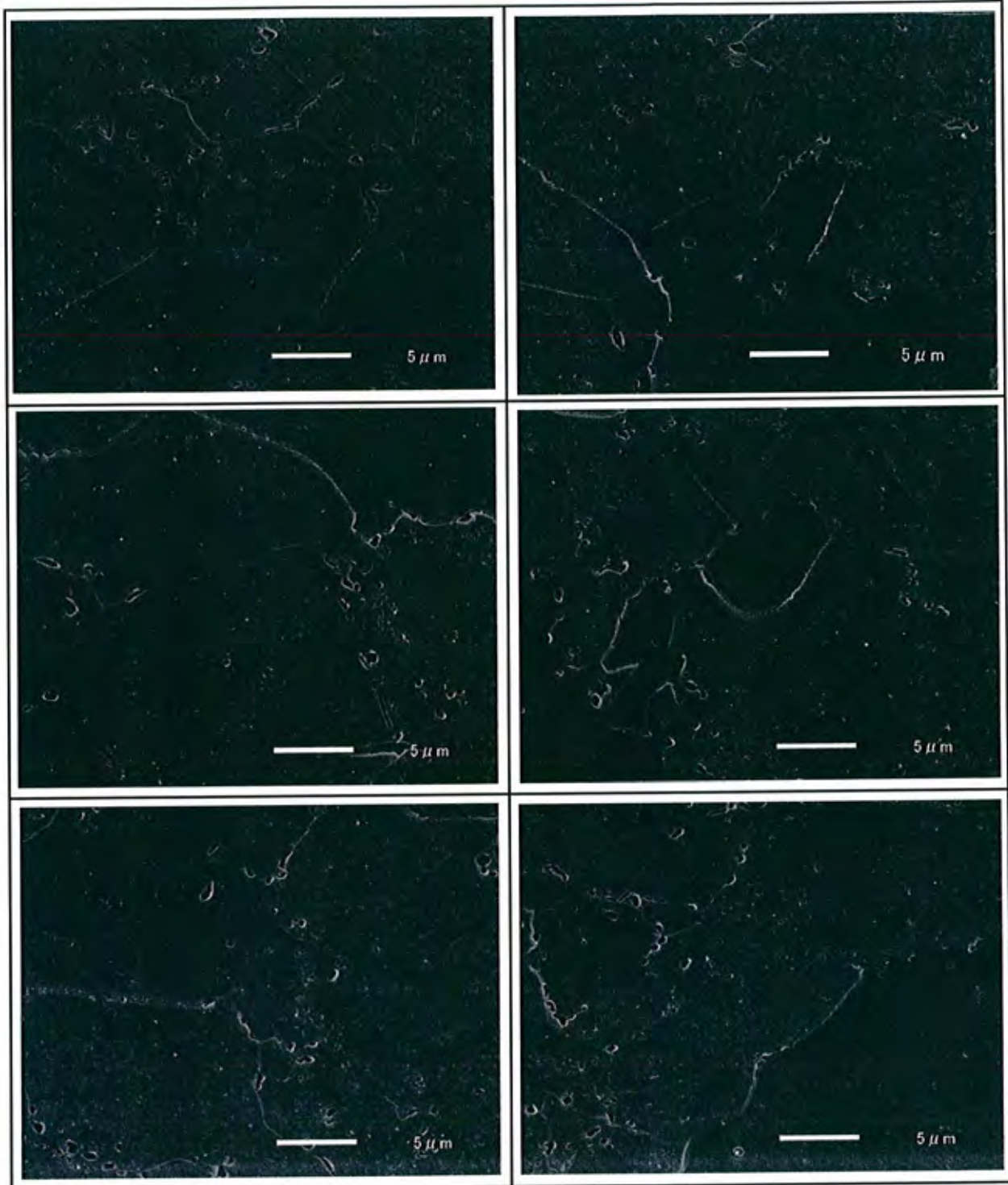


Photo II -33 Precipitates along grain boundary by SEM observator  
[Platen-SH #3 (Base Metal) ]

145

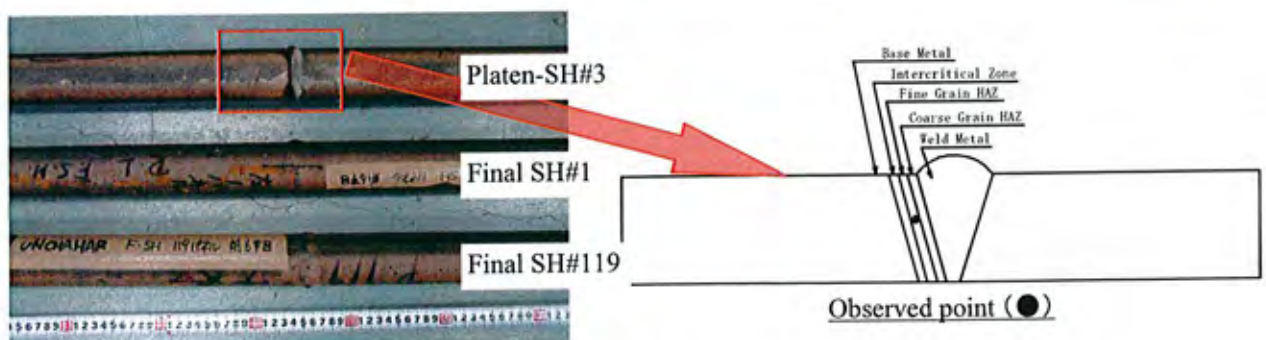
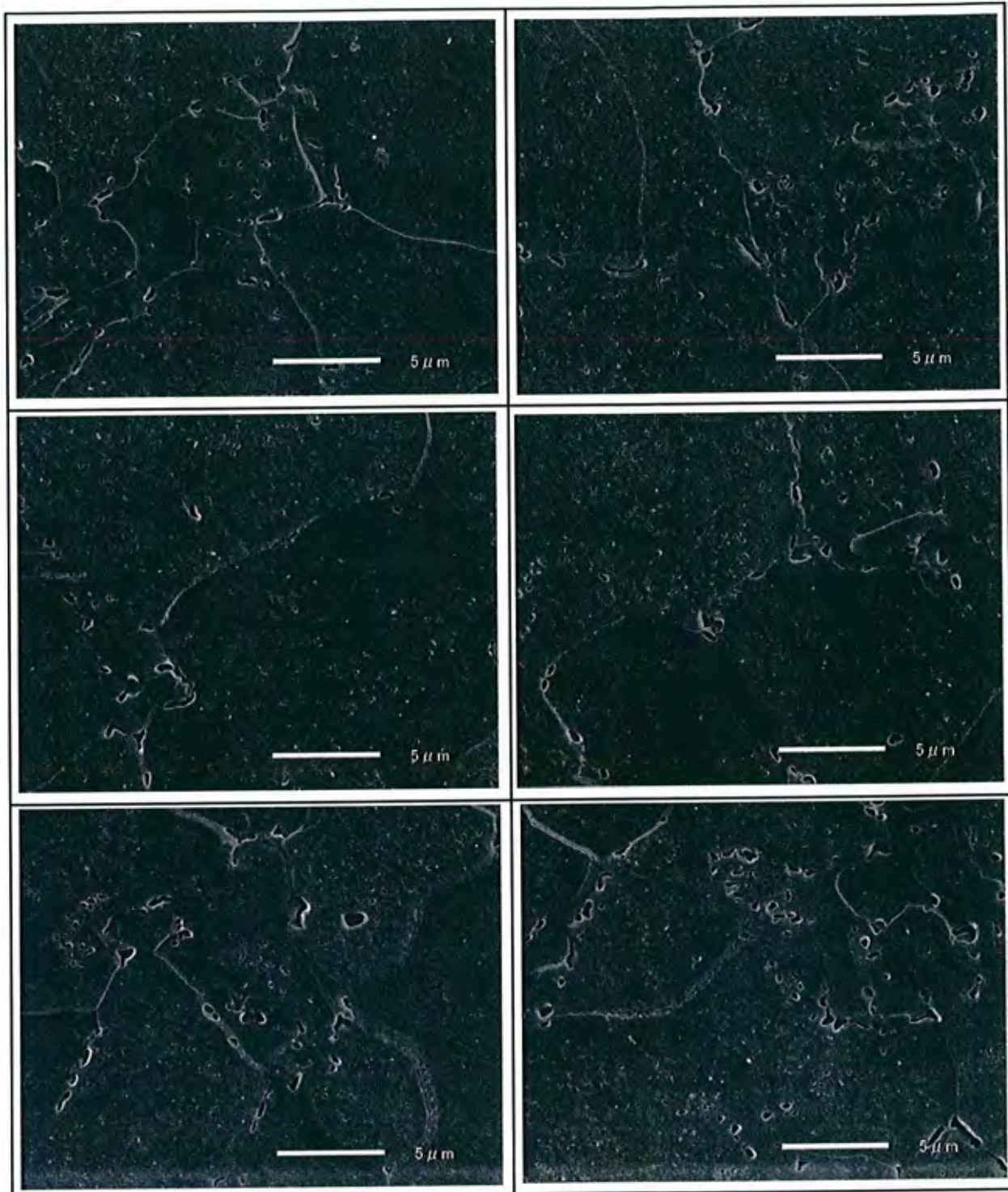
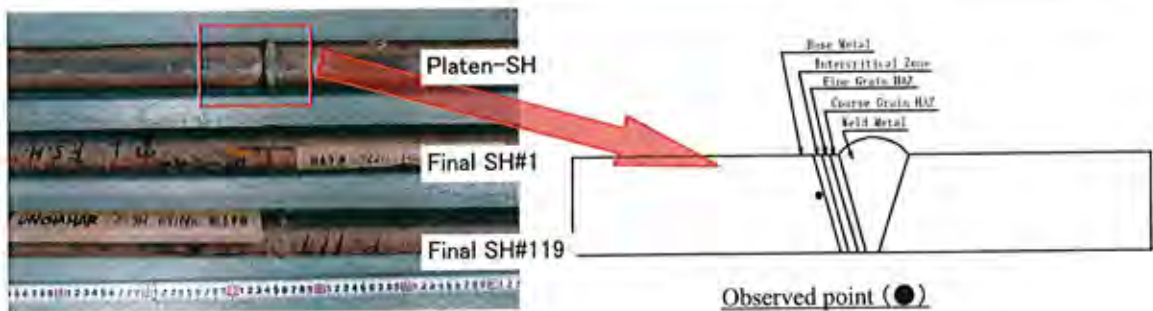
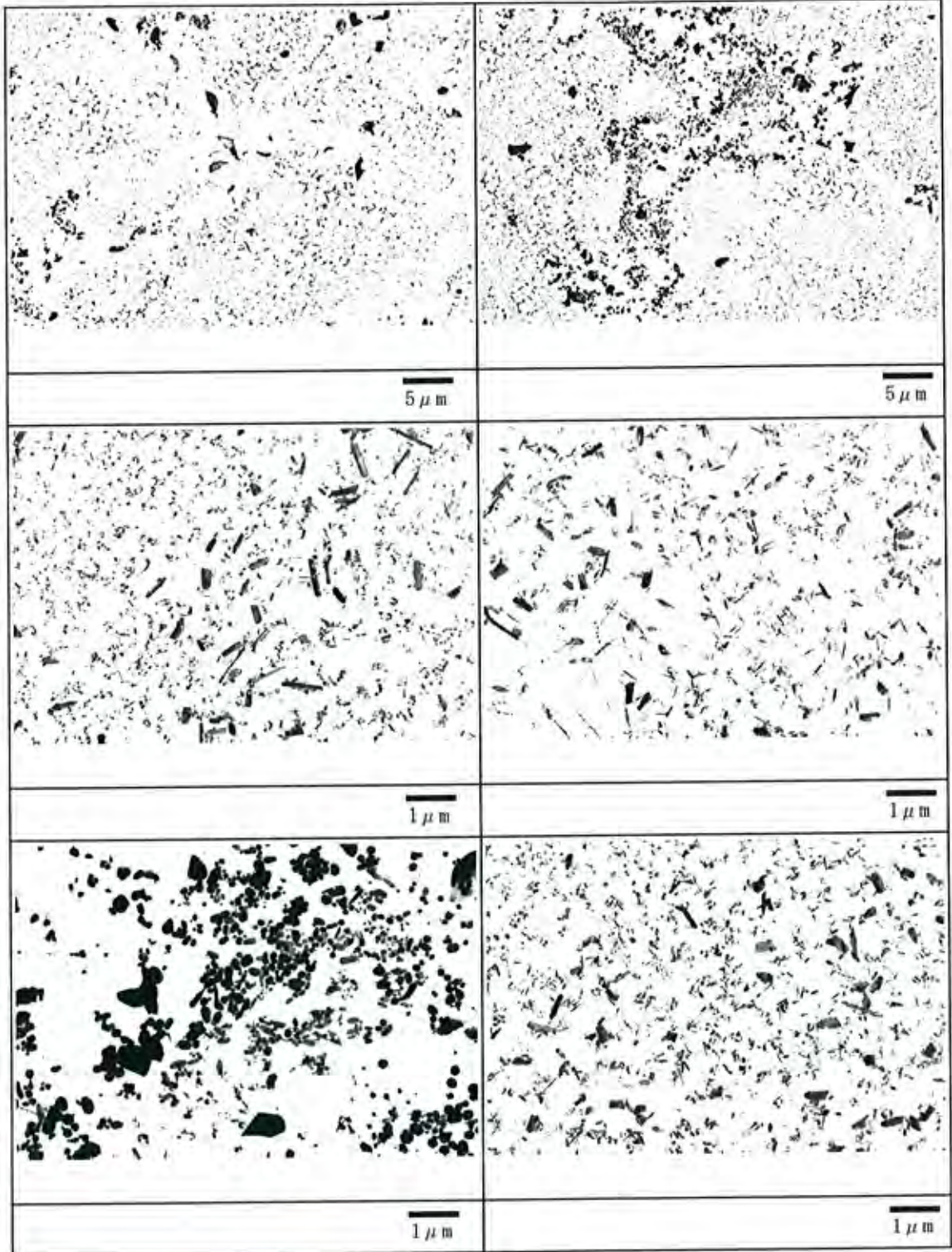


Photo II -34 Precipitates along grain boundary by SEM observator  
[Platen-SH #3 (Fine Grain HAZ) ]

542



575

Photo II-35 Precipitates distribution by TEM observation [Platen-SH (Base Metal) ]

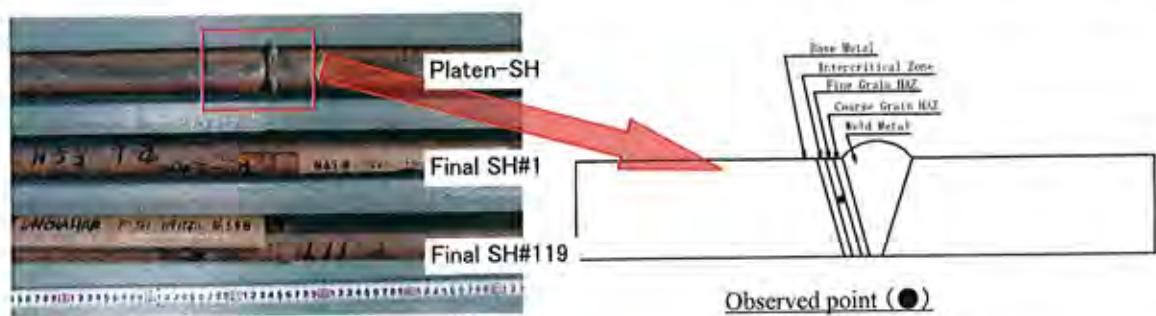
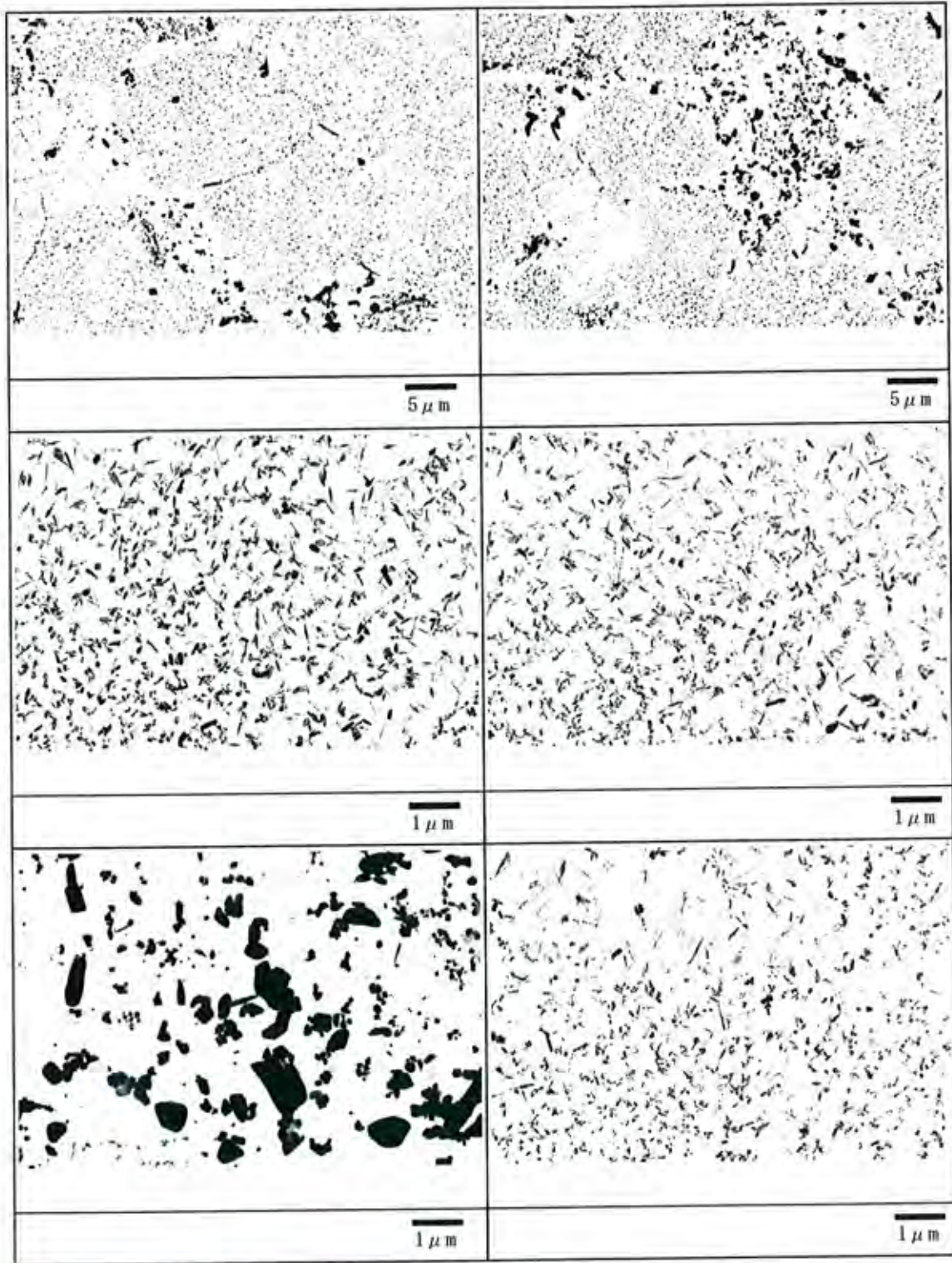
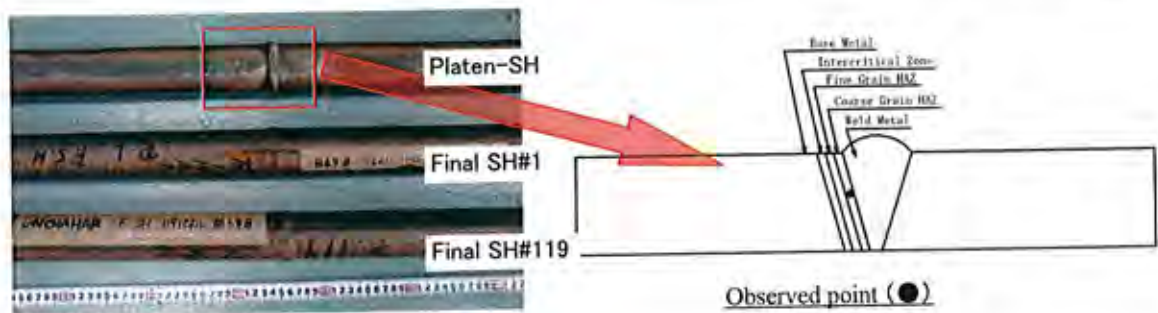
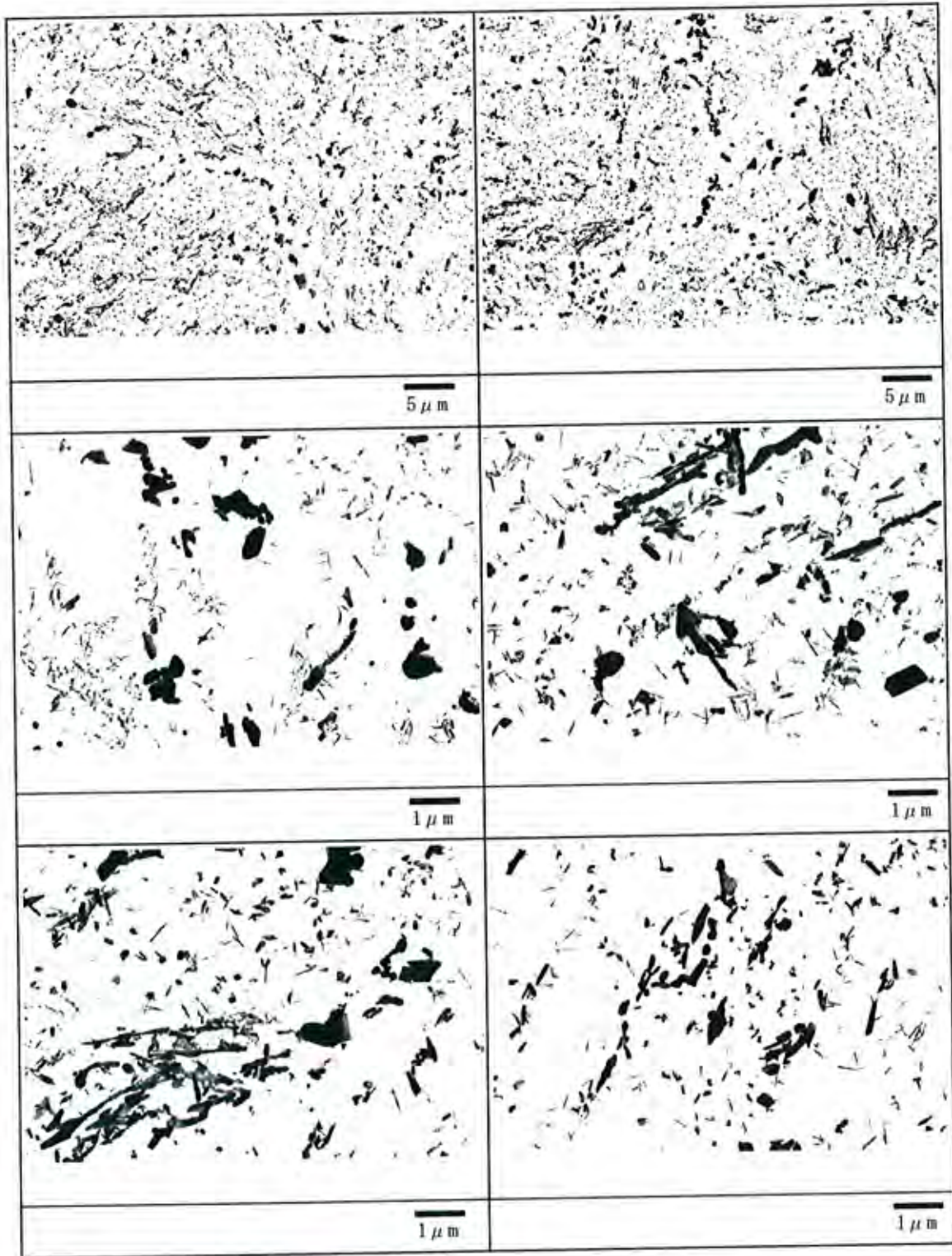


Photo II -36 Precipitates distribution by TEM observation [Platen-SH (Fine Grain HAZ) ]

544





545

Photo II -37 Precipitates distribution by TEM observation [Platen-SH (Coarse Grain HAZ) ]

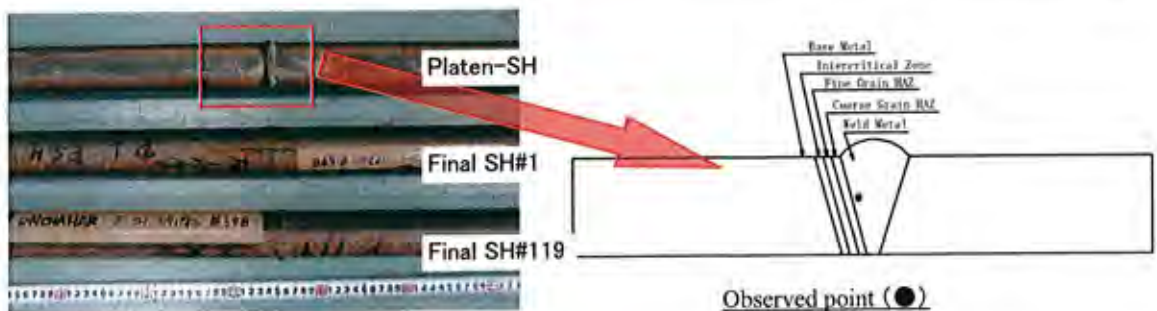
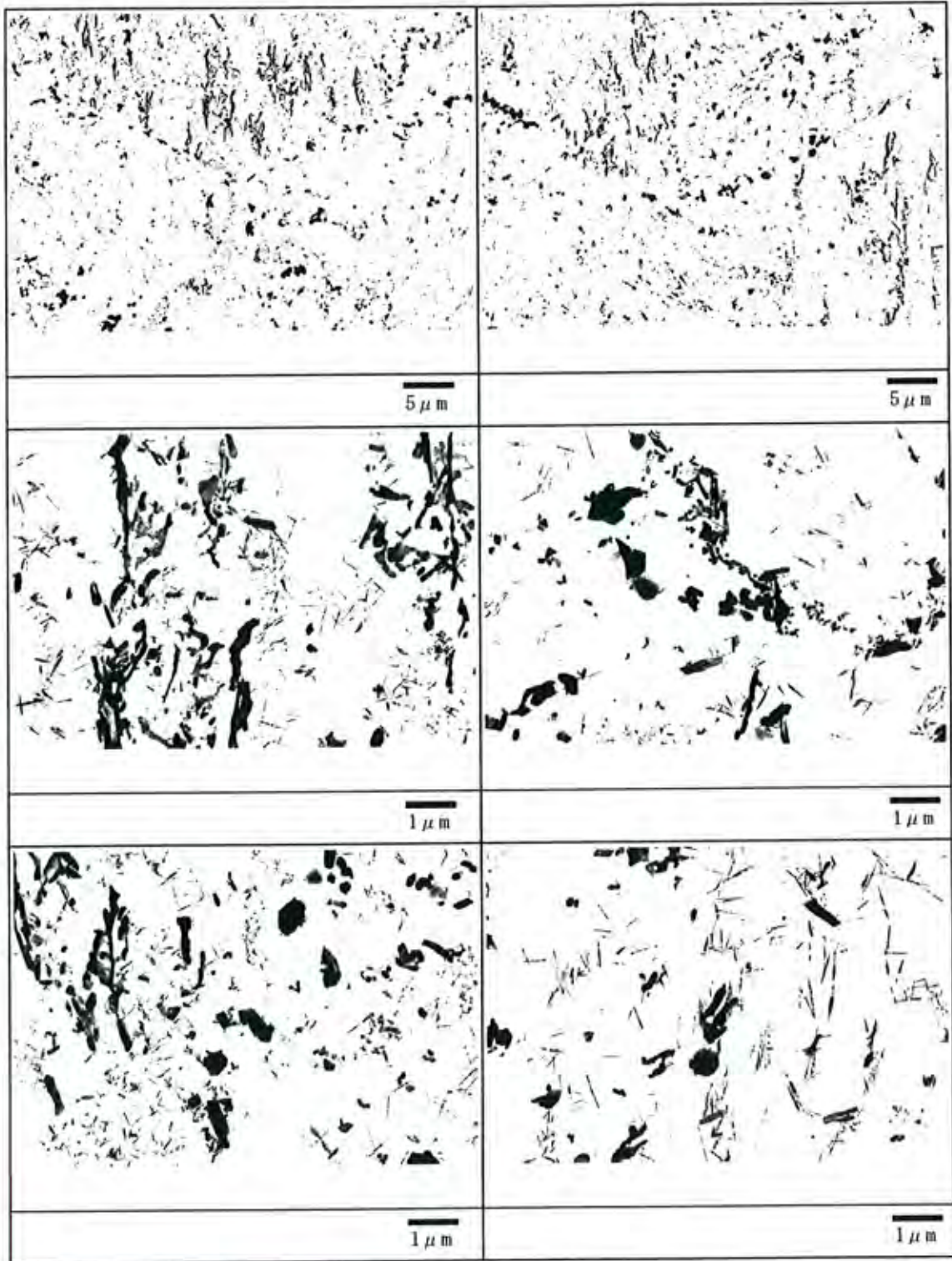


Photo II -38 Precipitates distribution by TEM observation [Platen-SH (Weld Metal) ]

546

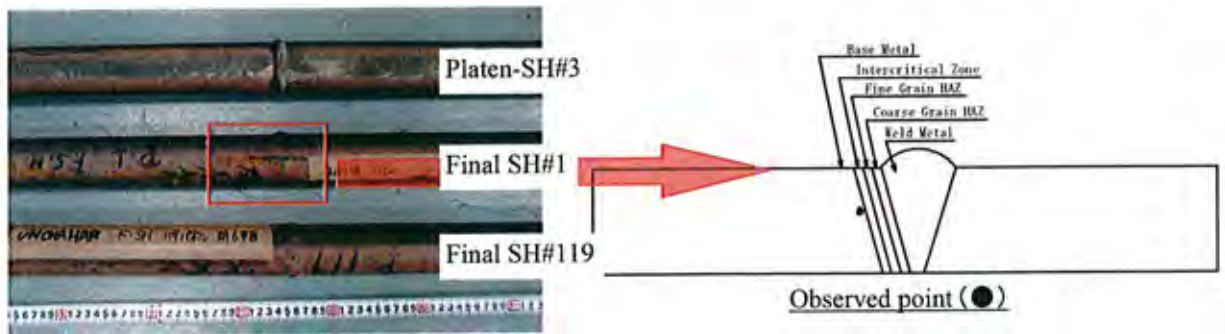
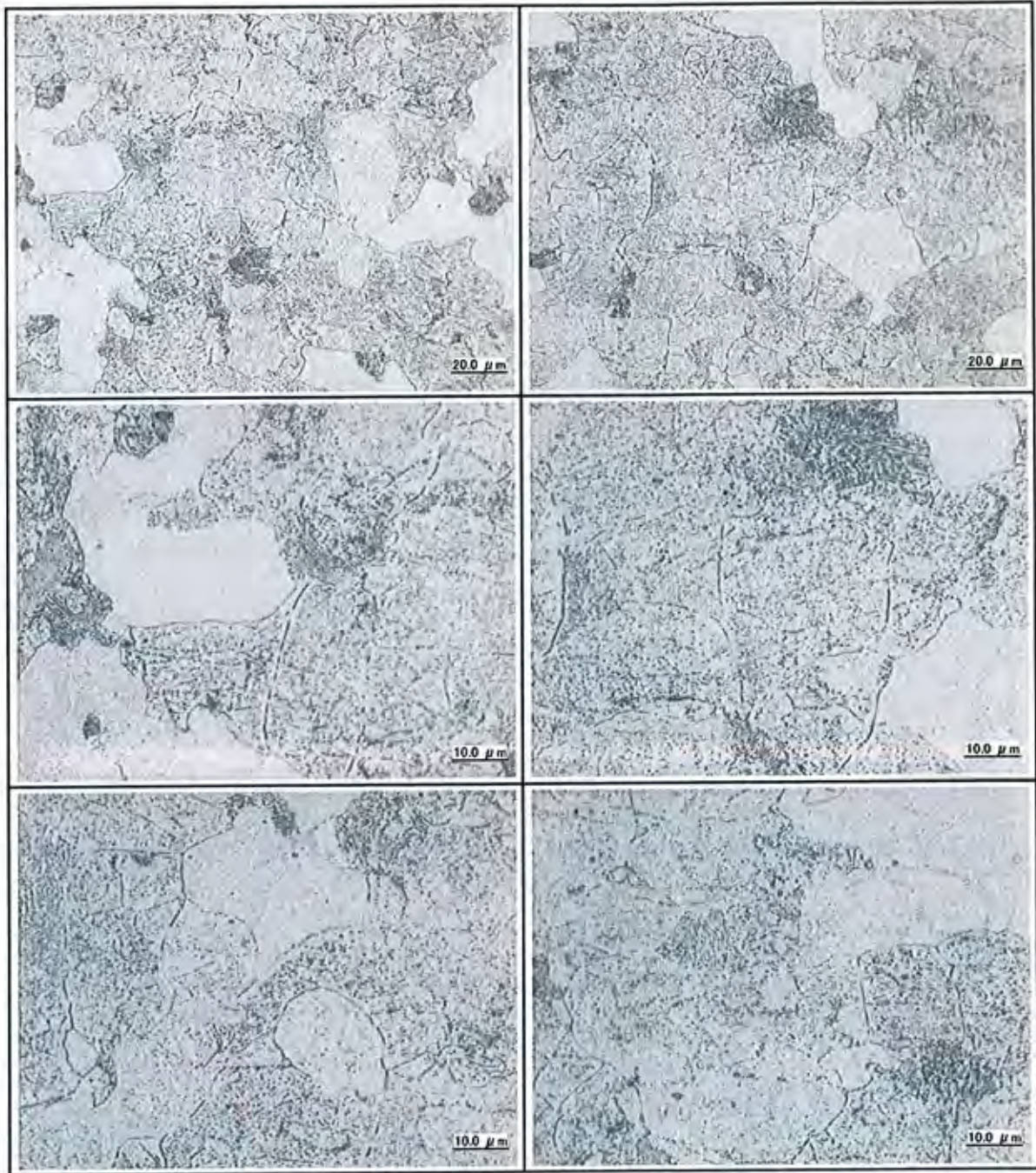


Photo II -39 Microstructure observation at cross section of sample tube [Final-SH #1 (Base Metal) ]

547

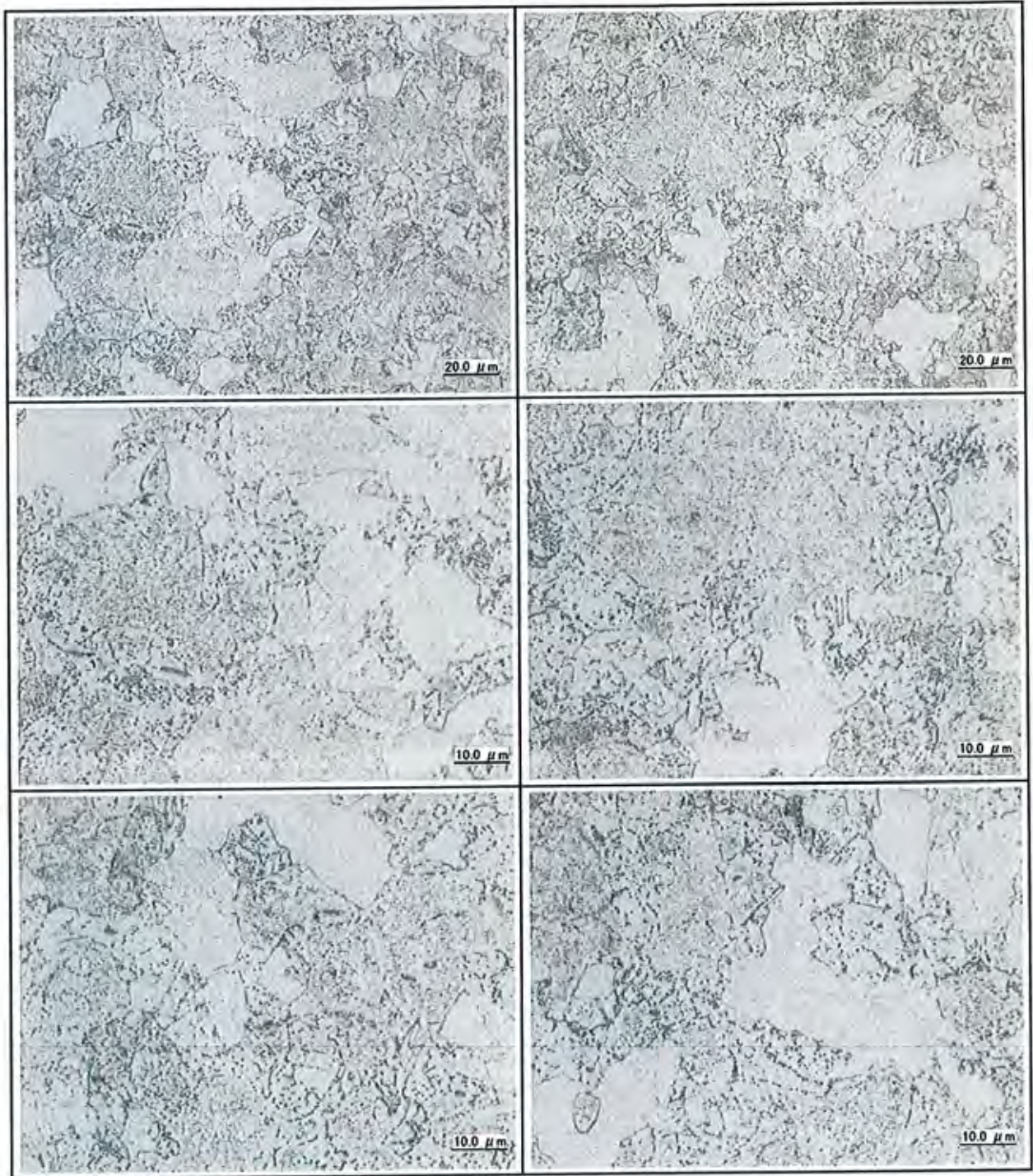


Photo II -40 Microstructure observation at cross section of sample tube  
[Final-SH #1 (Intercritical Zone) ]

548



Photo II -41 Microstructure observation at cross section of sample tube  
 [Final-SH #1 (Fine Grain HAZ) ]

675



Photo II -42 Microstructure observation at cross section of sample tube  
 [Final-SH #1 (Coarse Grain HAZ) ]

550

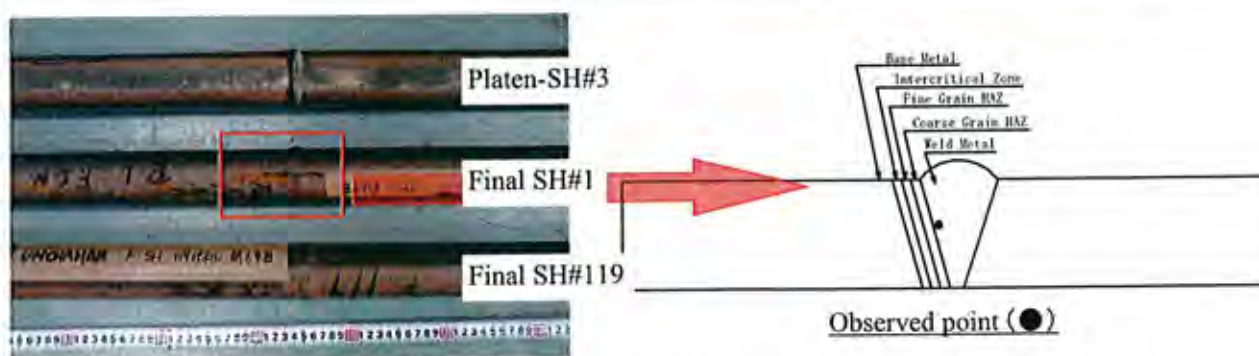


Photo II -43 Microstructure observation at cross section of sample tube  
 [ Final-SH #1 (Weld Metal) ]

55-1