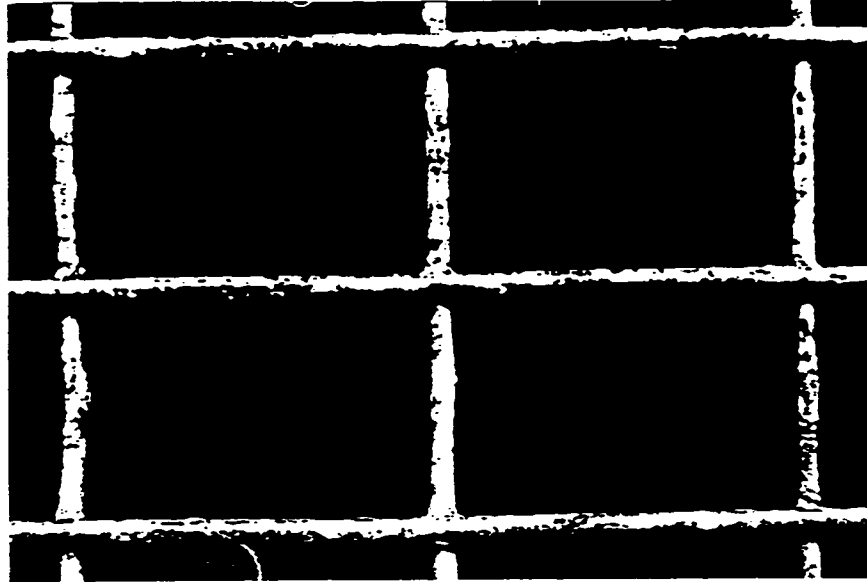
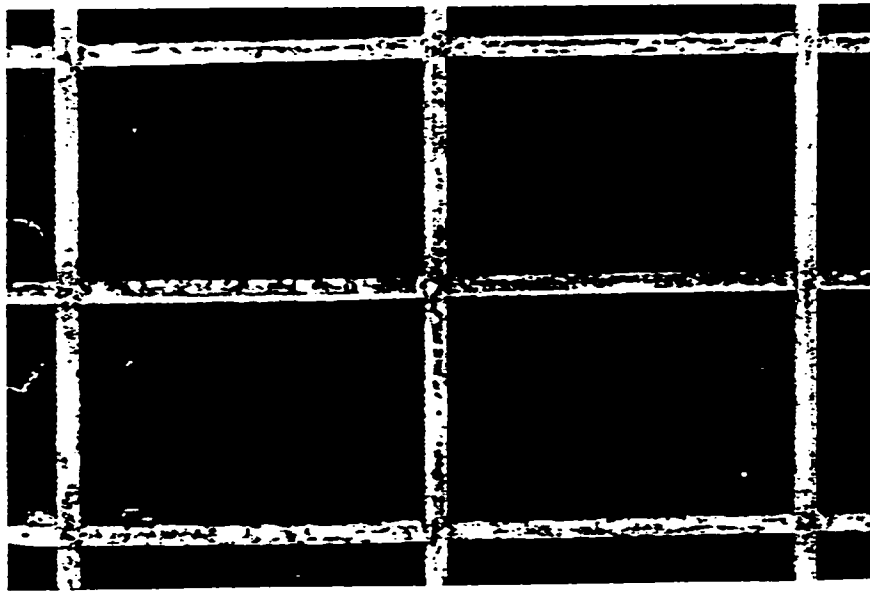


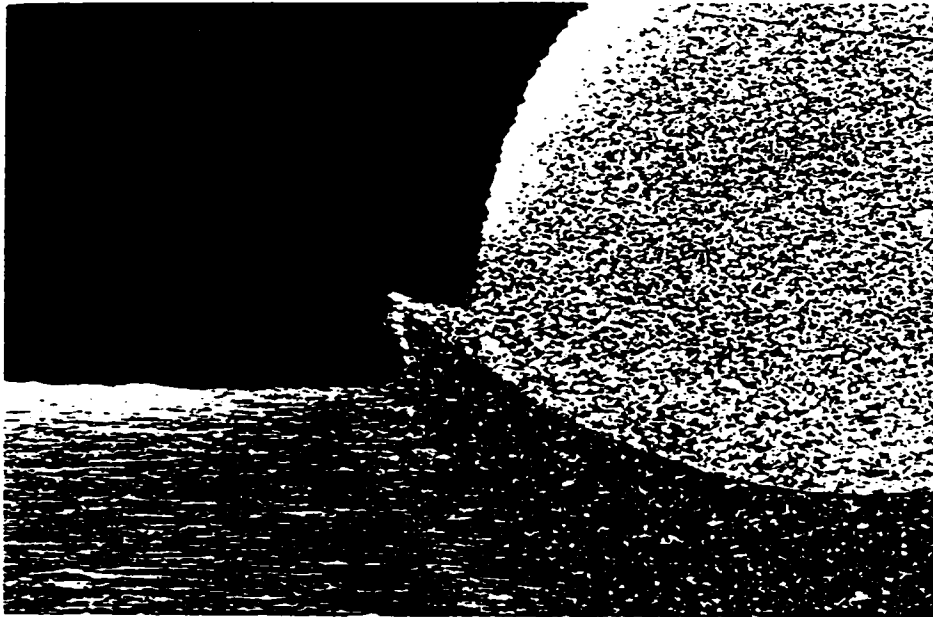
FIGURE 1



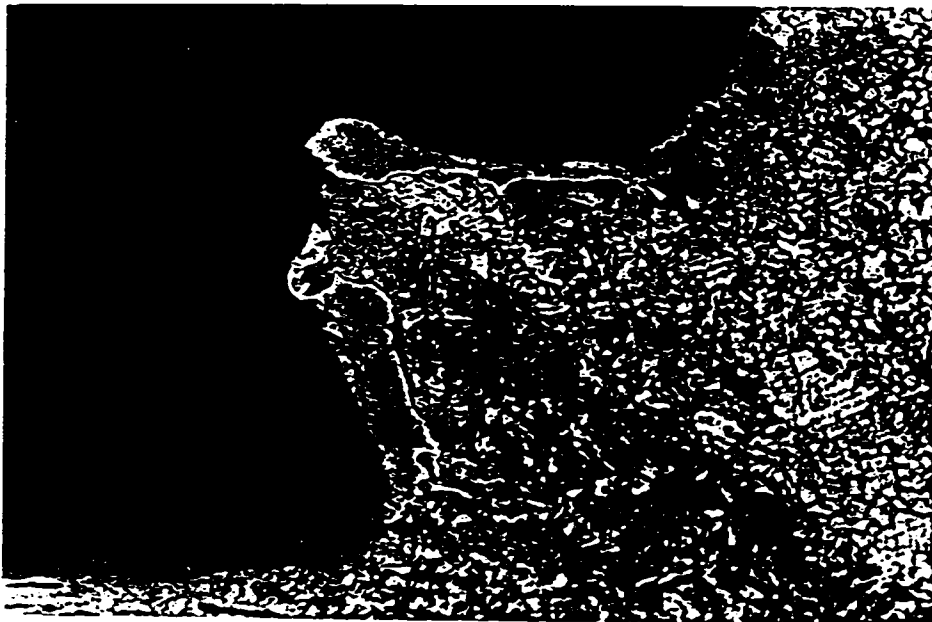
Regular galvanized (25 x 40 mm) after 35 cycles  $\text{SO}_2$  – atmosphere testing showing locally heavy corrosion of the weld areas.



Galfan galvanized (25 x 40 mm) after 35 cycles  $\text{SO}_2$  – atmosphere testing; no significant corrosion attack of the wire or weld areas.



**Figure 2** 60 X, optical micrograph of a section through a weld, showing line and stay wires, the heat affected zone and the weld nugget.



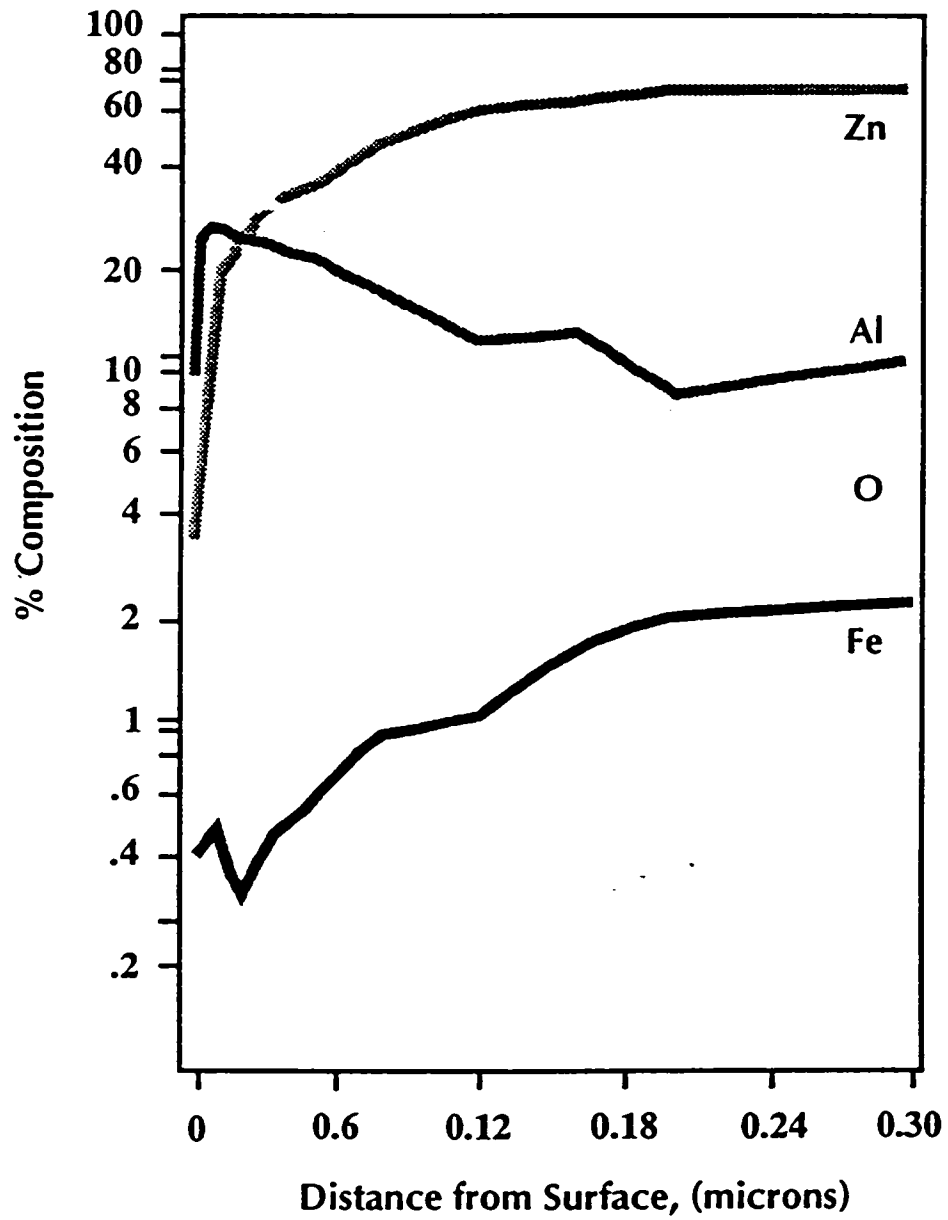
**Figure 3** 270 X, detail of Figure 2 showing the weld nugget with a bright phase on part of its surface.

FIGURE 4

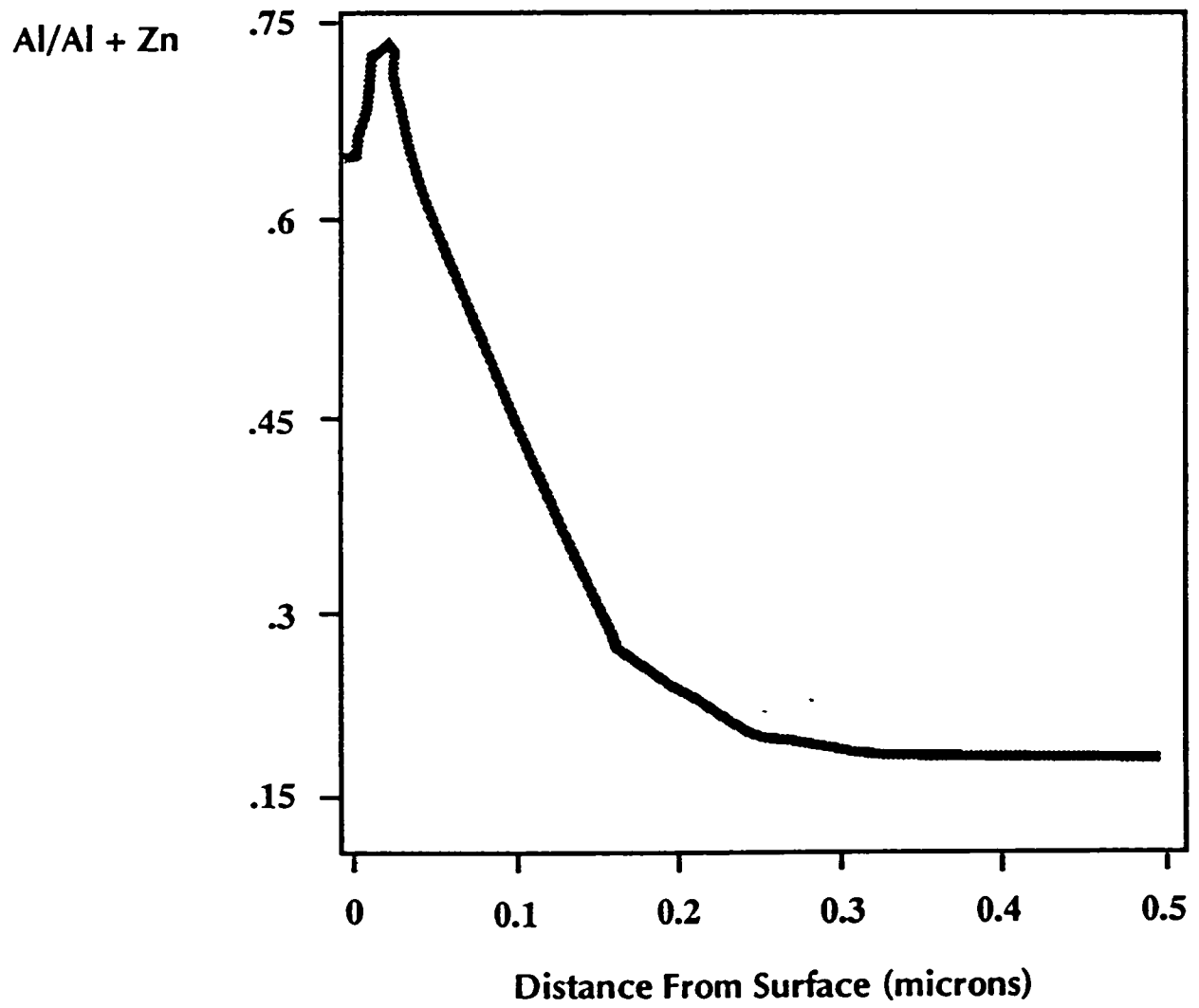


EUTECTIC structure of Galvan after some corrosion.  
Darker area is Galvan surface, light areas are Al-rich  
lamellae, dark areas are corroded Zn-rich lamellae.

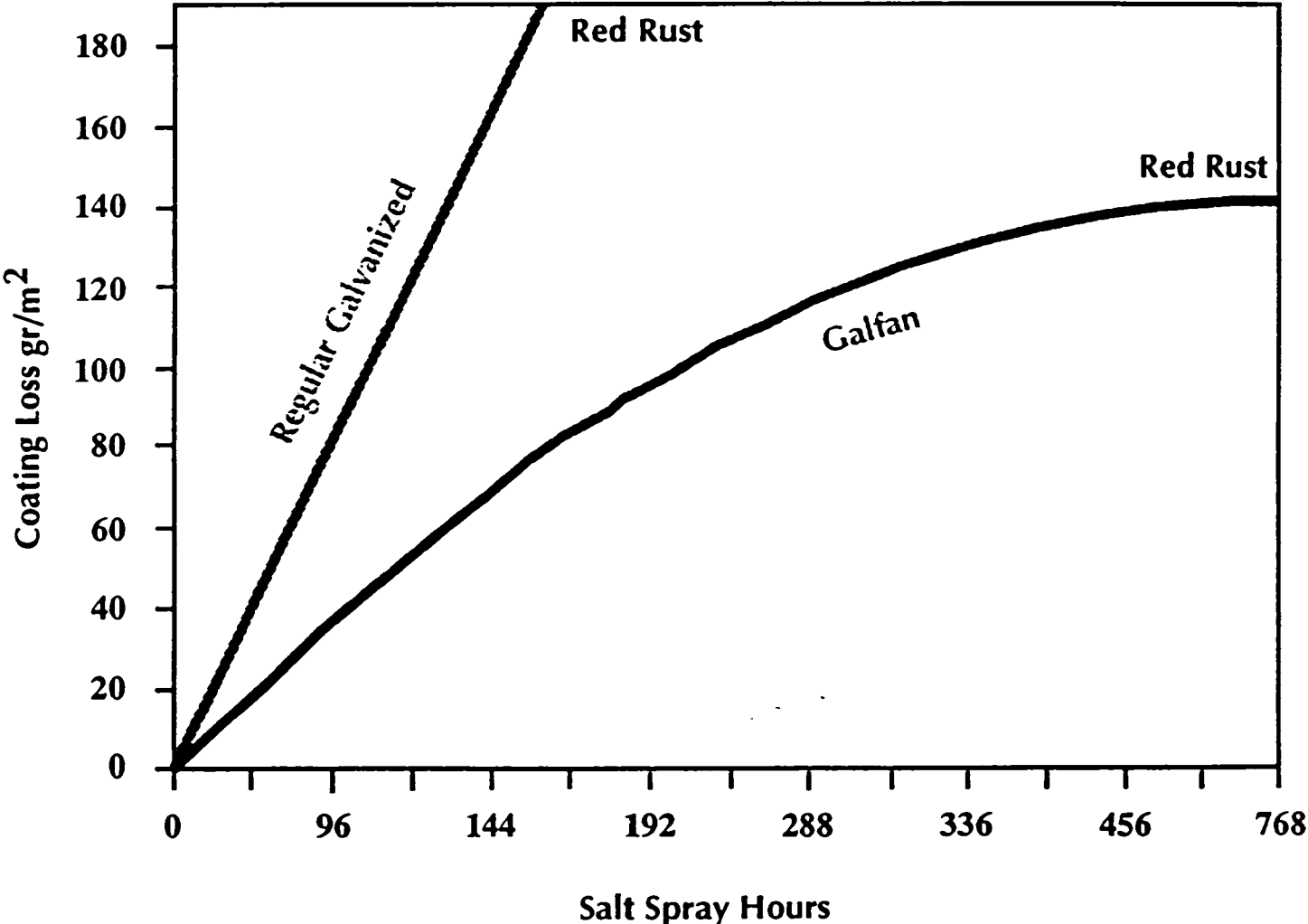
**FIGURE 5**  
**Scanning Auger Microprobe Analysis of Uncorroded Galfan Surface**



**FIGURE 6**  
**Al-Enrichment of a Corroded Galvan Surface**



**FIGURE 7**  
**Coating Loss During Salt Spray Test**





**Figure 8** Second-dip (Galfan) coating showing transformation of Fe-Zn alloy to Al-Fe-Zn intermetallic and eutectic coating.



**Figure 8a** First-dip (Regular Galvanizing) coating showing Fe-Zn alloy layer and zinc coating.